



EXCELLENCE BY CONTROL
SOLENOID VALVES » OPERATORS » MANIFOLDS
PRODUCT CATALOG

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The Family History That's Your Valve Advantage

Peter Paul continues its history as a driving force in solenoid valves since 1947.

Founded as a family business by Paul and Josephine Mangiafico right after World War II, the company is currently managed by first, second and third generation family members in a range of responsibilities. What this means for you is that the people with whom you deal today will be there to answer to you tomorrow.

This family commitment ensures that you get personal attention from a company sized to address your needs. Peter Paul has grown with the demand for its high service philosophy, quadrupling its plant from 7,000 to 28,000 square feet in 1977. By 1988, the company had grown to 130 employees and 77,000 square feet.

Now, you get a company whose size and manufacturing capabilities ensure innovation and quality with rapid response. Beyond that, you can always talk with a family member to ensure optimum satisfaction because at Peter Paul, customer retention starts with the family.

OUR FAMILY OF FOUNDERS



Paul Mangiafico



Josephine Mangiafico



Michael Mangiafico



Paul S. Mangiafico

BEGINNING

Career changes have become commonplace today, but they were very rare in the 1940's, particularly from one field to another. Paul Mangiafico took that challenge beginning in 1947. He was a hair dresser who took an interest in a magnet wire mill in Winsted, CT. In his effort to grow the business, Paul investigated new applications that would incorporate his wire product. The answer became Peter Paul Coil Company, which sold product to the emerging Television and Valve Industries. As Josephine, his wife, always said, "Paul went from curls to coils."

GROWTH

By 1965, the Company had become Peter Paul Electronics, to reflect the expanding product line that now included complete solenoid valves. The Company had expanded from six employees to over 70, and had tripled its production space. By the '70's, the Company had built a plant in Puerto Rico to support the manufacturing of coils.

PRESENT

Peter Paul Electronics has grown to nearly 150 employees and occupies 77,000 square feet in New Britain, CT. An additional 40 employees in a 23,500 square foot building are located in Fajardo, Puerto Rico. Today, the Company has embraced Lean Manufacturing as it continues to build valves for diverse applications worldwide. The company's slogan, "Making Things Work Throughout The World", reflects its global distribution, which brings valves and operators to customers everywhere.

Corporate Philosophy

The Peter Paul environment is more importantly an organization of people – people with years of experience, dedication and pride, people who bring you products that have a reputation for excellence.

We at Peter Paul put a heavy emphasis on the word quality. In describing our products, quality is the most important term. One of the results of being in a specialized business like ours, for over 60 years, is a thorough knowledge of all facets of manufacturing and development of superior valves and operators.

Peter Paul has kept pace with every technical improvement that has been made available both in material and techniques. Our fully staffed design, research and development departments consistently bring new and exciting products to the world's marketplace. Accurate, high speed manufacturing, and top quality components are only part of the picture. Our dedication to our customers' needs, both in service and delivery, is a very significant part of our operating philosophy. Our sales department is ready to answer questions and to solve your problems. Please feel free to call, or use our interactive form.

WHO ARE WE?

Peter Paul is a manufacturer of top quality and high performance products providing solutions to our customers.

MISSION

Develop and manufacture premiere solenoid valve solutions, using innovation and continuous improvement to exceed customer expectations.

VISION

People Performing Excellence Continuously to expand our preferred flow control solutions globally.

CORE VALUES:

- Integrity
- Speed
- Innovation
- Sustainability



Peter Paul Electric – Fajardo, Puerto Rico

Our 23,500 square foot facility has been manufacturing since 1972.

Our second facility offers customers coil winding, assembly operations, metal stamping and wide array of plastics molding Solutions. Our 35 years experience in the insert and bobbin molding arena have created a molding team able to serve a wide array of needs.

We can serve your thermoset and thermoplastic needs. Plastics/molding services are; bobbin and high precision parts molding, high precision insert molding. Our years of experience in the Thermoset type materials created the opportunity for us to make our own molding compounds a facet we believe is an advantage. All of this while maintaining excellence in our thermoplastic opportunities.



COIL WINDING

In 1972 there was a shift in Peter Paul strategy and in 1972 the coil winding resources were moved to Fajardo, Puerto Rico. We have a variety of coil winding capacities to serve many different customer needs. We also have the in house people to design the processes and the resources to tool up any of your needs that fit our capacities.

PLASTICS AND MOLDING

Insert Molding is the backbone of our operations; we have nearly 30 years experience with thermoset and 12 years experience with Thermoplastic insert molding. Our plant was slightly ahead of its time back in 1972 through a pioneering effort from our founders, advantage of our innovation, knowledge and relationships having worked very close with makers of thermosets since the 1960's and developing the best compounds for efforts.

The roots of those relationships can be seen right here in our plant through profound knowledge of formulation and compounding capabilities. Inquire about our compounds. On the other hand we have pioneered processes in the thermoplastic arena as well. Peter Paul Electric, Inc. has been working with these materials for many years including close cooperation with Dupont.

METAL STAMPING

Over the years we have found that it has been cost effective for us to metal stamp many coil components in house and once again this experience has paved the way to an expertise in metal stamping and die design and construction of which all is done in house. Some of these products include housings, yokes, brackets, washers, plates, terminals, and other more application specific parts.

VPOXY



Peter Paul has developed a proprietary epoxy molding system that does not need refrigeration. The system is designed to run very fast molding cycles with excellent shelf stability. Also, this system requires low transfer pressures for optimum fill properties. The material is mineral filled and fiber re-enforced and will meet a UL 94 flammability. Vpoxxy exhibits excellent moisture protection and lead adhesion.

Why Buy a Peter Paul Valve?

A Peter Paul Valve is better than any valve on the market: with longevity, bubble tightness, smooth flow and quality you can trust.

The reason to purchase a Peter Paul Valve for your application is simple: QUALITY. We do not just say it; we mean it and practice a higher standard in everything we do.

THE PETER PAUL ADVANTAGE

- *It is easy to do business with us*
- *You get answers quickly*
- *We answer the phone with a live person*
- *You can speak directly with your account manager or engineering when you call*
- *Our leads times are short*
- *emails are returned promptly*
- *We communicate faster than the competition you see pictured was designed and constructed in house using the latest in tool design practices.*



SELF-MANUFACTURE

We manufacture the majority of everything in-house which allows more control over the quality of the valve. All processes are vertically integrated and streamlined using continuous improvement principles. For example coils and stamping are both done in-house. Made in USA utilizing lean principles and a Kanban system. Our seals are developed and manufactured in-house and will not deteriorate.

PASSIVATION PROCESS

A better passivation method is implemented at Peter Paul. This proprietary method uses a special magnetic steel which is then dipped or passivized, eats away the exposed iron, no rust inside or outside. The process ensures a rust-free environment both inside and outside the valve. Particles cannot interrupt the flow or seal, hence bubble tightness and a smooth flow is guaranteed. Our orifice is precisely machined which creates a better flow through the valve and a bubble tight seal.

CONSERVATIVE RATINGS

We provide a high quality valve that will do more longer. The valve operating pressure rating and PSI specifications are conservative. Our coils are underrated, again giving more quality for the money.

HAZARDOUS LOCATION

Our hazardous location expertise is unique to the industry and is for high pressure, low pressure, high flow, low flow valve applications. We are the industry leader for hazardous location applications.

FAMILY

We are a third generation family business and are stable and growing while having pride in our workmanship. We are a very nimble company, having Lean Principles making it easy to conduct business together.

Production Preparation Process (3P)

Higher efficiency and lower waste are the road map to our continued success.

Lean experts typically view 3P (Production, Preparation, Process) as one of the most powerful and trans-formative advanced manufacturing tools, and it is typically only used by organizations that have experience implementing other lean methods. Whereas Kaizen and other Lean methods take a production process as a given and seek to make improvements, the Production Preparation Process (3P) focuses on eliminating waste through product and process design.

With 3P, the teams spend several days (with singular focus on the 3P event) working to develop multiple alternatives for each process step and evaluating each alternative against manufacturing criteria (e.g., designated take time) and a preferred cost. The goal is typically to develop a process or product design that meets customer requirements best in the “least waste way”. The typical steps in a 3P event are described below.

Define Product or Process Design Objectives/Needs:

The team seeks to understand the core customer needs that need to be met. If a product or product prototype is available, the project team breaks it down into component parts and raw materials to assess the function that each plays.

Diagramming:

A fish bone diagram or other type of illustration is created to demonstrate the flow from raw material to finish product. The project team then analyzes each branch of the diagram (or each illustration) and brain-storms key words (e.g., roll, rotate, form, bend) to describe the change (or “transformation”) made at each branch.

Sketch and Evaluate the Process:

Sub-teams are formed and each sub-team member is required to draw different ways to accomplish the process in question. Each of the sketches is evaluated and the best is chosen (along with any good features from the sketches that are not chosen) for a mock-up.

Build, Present, and Select Process Prototypes:

The team prototypes and then evaluates the chosen process, spending several days (if necessary) working with different variations of the mock-up to ensure it will meet criteria.

Hold Design Review:

Once a concept has been selected for additional refinement, it is presented to a larger group (including the original product designers) for feedback.

Develop Project Implementation Plan:

If the project is selected to proceed, the team selects a project implementation leader who helps determine the schedule, process, resource requirements, and distribution of responsibilities for completion.

Lean Enterprise Supplier Networks:

A set of buyer-supplier relationships where organizations apply lean production concepts across the supply chain to reduce costs, delays, and other wastes.

Source: www.epa.gov/lean

COMMERCIAL INDUSTRIAL

HVAC

Heating, ventilating and air conditioning systems use Peter Paul valves to control the flow of air and refrigerant throughout the often complex systems used in industrial and commercial buildings. Peter Paul valves are used in humidifier reservoirs to maintain proper climate control as well as systems that reclaim refrigerant from window and roof top air-conditioning systems.

INDUSTRIAL

Our solenoid valves can be found in shop floor applications from product and process test equipment, machine tool equipment, industrial compressors, welding and flame cutting machinery, to a variety of air & hydraulic cylinder applications — in virtually any industrial application that uses air or hydraulic fluids to perform work.

CRYOGENICS

The production of and storage of cryogenic materials at very low temperatures (below -150 °C, -238 °F or 123 K) and the behavior of materials at those temperatures is an area of expertise for the valves we produce. The demands of these applications require enhanced characteristics of the solenoid valve seal with regards to quality and reliability, particularly in those applications which require a bubble tight seal.

FOOD

FOOD PROCESSING VALVES

Many food processing plants use PeterPaul valves to control the flow of ingredients as well as the movement of packaging lines systems in the manufacturing and distribution of food.

BEVERAGE DISPENSING

PeterPaul valves are widely used in beverage dispensing equipment such as the most advanced coffee brewing systems and to control flow into and out of water coolers, soft drink dispensers. Many gas powered barbeque grills use Peter Paul valves to control the flow of propane gas to the grills.

MEDICAL

INSTRUMENTATION AND ANALYSIS

Peter Paul manufactures a low-cost, miniature solenoid valve line with similar performance characteristics to more costly valves. Peter Paul valves can be found in medical gas instrumentation systems as well as industrial gas measuring and instrumentation devices.

MEDICAL EQUIPMENT

Peter Paul manufactures valves for a variety of medical equipment uses such as adjustable beds, dental office air and liquid applications as well as valves for air monitoring systems.

OIL & GAS

CHEMICAL/PETROLEUM PROCESSING

Peter Paul supplies a wide range of products for the chemical and petroleum processing industry including: Chemical plant pumping and storage systems, petroleum refineries, off-shore oil platforms, distillation plants, sewage treatment facilities and grain elevators. Many applications within the chemical and petroleum processing industries require explosion proof valves and Peter Paul has a wide range of products and the requisite knowledge to help you select the right valve for your application.

BURNER MANAGEMENT SYSTEMS

Already a very common fixture at well heads, storage tanks and transfer points for natural gas, burner management systems allow natural gas producers to control fugitive gases by burning them off prior to release into the atmosphere. Our valves also play many rolls in the control and storage of gas and oil from well heads, pump systems, storage tanks and the heating units used to control the viscosity of stored crude oil. Whether developing a new system or replacing a valve for an installed system, Peter Paul has the products all of these solenoid valve requirements.

TRANSPORTATION

AUTOMOTIVE

Peter Paul valves are used in the processing, filtering and refilling of many replaceable and disposable products used in automotive applications. Refrigerant, oil, fuel and transmission fluid recovery and refilling systems use our valve technology to control the flow of these products into and out of automotive and trucking tanks and reservoirs.

FUEL SYSTEM VALVES

Peter Paul supplies valves into the gasoline and diesel fuel system industry for turbo charging systems as well as fuel supply control through engine injection systems.

NITROUS SYSTEM VALVES

Nitrous systems in turbo boost systems require valves with similar function yet different materials compared to fuel system applications. Peter Paul was a pioneer in this field and is still regarded as the technological leader in the nitrous system industry.

Guidelines for Selecting Valves

There is much to consider when choosing the right valves for an application. Here are some basics, important considerations, and guidelines for energy efficiency.

The two primary characteristics for selecting a directional-control valve are the number of fluid ports and the number of positions the valve can achieve. Valve ports provide a passageway for fluid (liquid or gas) to flow into and out of the valve. A valve with only an inlet and outlet port is a 2-port (often called a 2-way) valve. A valve with one inlet and two outlet ports— or two inlet and one outlet port — is called a 3-port or 3-way valve. The number of positions refers to the number of distinct flow paths a valve can provide.

Two-position valves operate either on or off, whereas spool valves use a sliding spool to achieve two, three, or more positions. Two-position valves use a plunger, poppet, or ball that seals against a seat, which provides a positive seal so that fluid does not flow when the valve is closed. However, the sliding motion of a spool can cause wear, which compromises the sealing integrity of spool valves. Therefore, a spool valve may pass fluid even if it is closed.

BASICS OF TWO-POSITION VALVES

Two-way, two-position valves can be visualized as a fluid switch; fluid flows when the valve is open, and fluid flow is blocked when the valve is closed. This naming convention is just the opposite of that used for electrical switches — which pass current when they are closed and block current when they are open. Two-way valves are available for either normally open (NO) or normally closed (NC) operation. A NO valve passes fluid when it is not energized. When the valve is shifted, it closes to block flow. In contrast, a NC valve blocks flow when it is un-energized. Shifting a NC valve opens the valve so it passes flow.

Two-position valves are also available in a 3-way configuration. Instead of blocking or passing fluid flow, they pass fluid through two of their three ports and block flow to a third (usually exhaust) when in one position. When shifted (energized), they unblock the third port and block one of the other two. Two-position valves often are shifted manually, especially when used as a shutoff valve. When physical effort would be too great for manual shifting (and in some specialized machines), 2-position valves may use compressed air or other pressurized fluid to provide the power



to shift them open or closed. However, for most automated equipment, electricity is used to shift valves from one position to another.

Choosing between NO or NC operation is an important consideration for energy efficiency. For example, if a machine only needs to block flow intermittently, a NO valve should be specified because it will only use electric power periodically. During the majority of machine or system operation, it will pass flow without using any electrical power. However, when used in a safety function, the valve may need to block flow if electrical power is lost. In this case, a NC would be specified because it will block flow if electrical power is lost. A third option is a latching valve, which provides an energy-saving alternative. Latching valves use a permanent magnet to hold them open or closed once they've been shifted. This allows them to stay in either state indefinitely without drawing power. A brief DC voltage pulse shifts the valve open, and a reverse pulse polarity pulse shifts it closed.

VALVE ACTUATORS

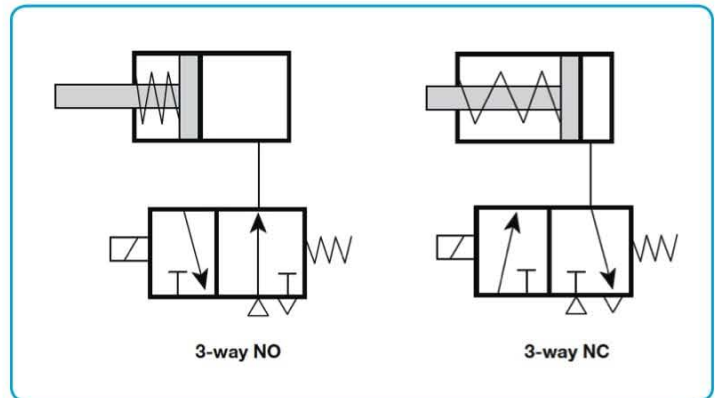
Valve actuators are the parts that apply force to shift a valve's flow directing elements, such as a poppet or plunger. The speed and frequency of valve shifting are key factors in fluid power system performance. As long as the actuator produces enough force to shift the valve, the system designer can select any appropriate actuator for the conditions and type of control under which the system will operate.

Actuators for directional-control valves are either mechanical, pilot, electrical, or a combination of these. Different types of actuators can be installed on the same basic valve design. A common valve body often is used that accepts a variety of different actuators.

With a mechanical actuator, a machine element or person pushes, pulls, or turns the valve's flow-directing element to shift it to another position. Manual actuators include levers, palm buttons, push buttons, pedals, cams, rollers, stems, and screws.

Springs are used in most valves to hold the flow-directing element in an un-energized position. A spring holds the non-actuated valve in one position until an actuating force great enough to compress the spring shifts the valve either open or closed. When the actuating force is removed, the spring returns the valve to its original position.

Pilot-actuated valves are shifted by pressurized fluid (air or oil) that applies force to a piston that shifts the valve's flow-directing element. Pilot-actuated valves can be mounted in any convenient or remote location to which pressurized fluid



Single-acting air cylinders are a common application for 3-way valves. In the example above, left, a normally open valve routes air to the cylinder to extend its piston. Energizing the solenoid shifts the valve and allows the cylinder spring to push air out of the cylinder through the valve. At right, a normally closed valve blocks compressed air flow to the cylinder, so the cylinder's spring keeps the piston retracted. Energizing the valve's solenoid shifts the valve to route compressed air into the cylinder, extending its piston.

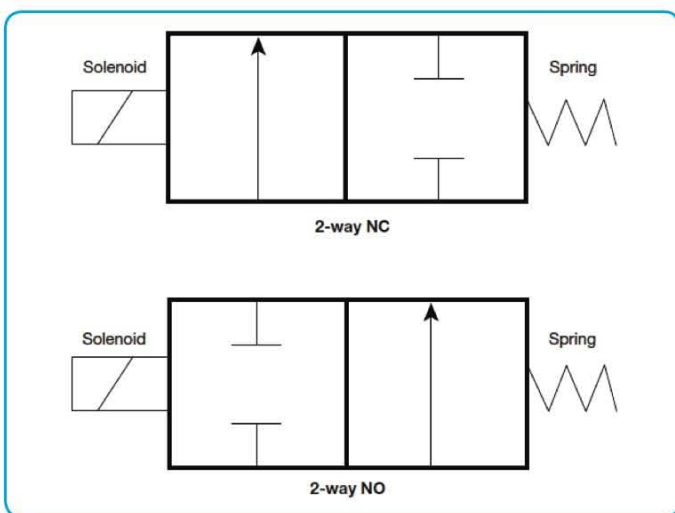
can be piped. The absence of sparks and heat buildup makes pilot-actuated valves attractive for applications in flammable or explosive environments.

However, solenoids are the most common method of actuation. Simply put, a solenoid is a coil of wire wrapped around a moveable metal core with a small space between them.

Running an electric current through the coil creates a magnetic field that moves the metal core. The core is attached to the valve's flow directing element, so the valve shifts as a result of the electrical power. When the current is cut off, a spring returns the valve to its un-energized state.

Solenoid valves are especially popular for industrial machines because of the wide availability of electric power in facilities. However, mobile equipment makes extensive use of solenoid operated valves as well. Solenoids operate from either AC or DC power, and the selection of AC or DC depends on the form of electrical power available.

There is a practical limit to the force that solenoids can generate. This means they cannot directly operate valves requiring high shifting forces. Furthermore, valves using large solenoids can require substantial electrical power when valves must remain actuated for long intervals. Heat buildup can also pose problems in these situations. The solution is to use small, low-power solenoids in combination with pilot pressure. The solenoid starts and stops pilot flow, and pilot pressure provides the high force to shift the valve's flow-directing mechanism.



A 2-way normally closed valve, top, is held closed by a spring, and opens when its solenoid is energized. A 2-way normally open valve, bottom, is held open by a spring and blocks flow when its solenoid is energized.

VALVE CONFIGURATIONS

In addition to 2-way NO and 2-way NC closed, Peter Paul also offers two-position valves in other useful configurations. Many lend themselves to specific applications.

For example, a 3-way NC blocks compressed air from reaching a single-acting, spring-return pneumatic cylinder and vents the cylinder port to exhaust. Energizing the valve blocks the port to atmosphere and routes compressed air to the cylinder port. The valve's exhaust port can simply be vented to atmosphere or to a common air exhaust line.

A 3-way NO valve routes compressed air to a pneumatic cylinder and blocks the valve's exhaust port. Energizing the valve blocks compressed air to the cylinder and opens the cylinder port to exhaust. Again, the valve's exhaust port can simply be vented to atmosphere or to a common air exhaust line.

In a 3-way directional control valve, the supply port is open to the first of two outlet ports while the second outlet port is blocked. Shifting the valve routes flow to the second outlet port and blocks it to the first port.

A 3-way multi-purpose valve works like the directional control version, except that reverse flow can occur – inlet to outlet or outlet to inlet.

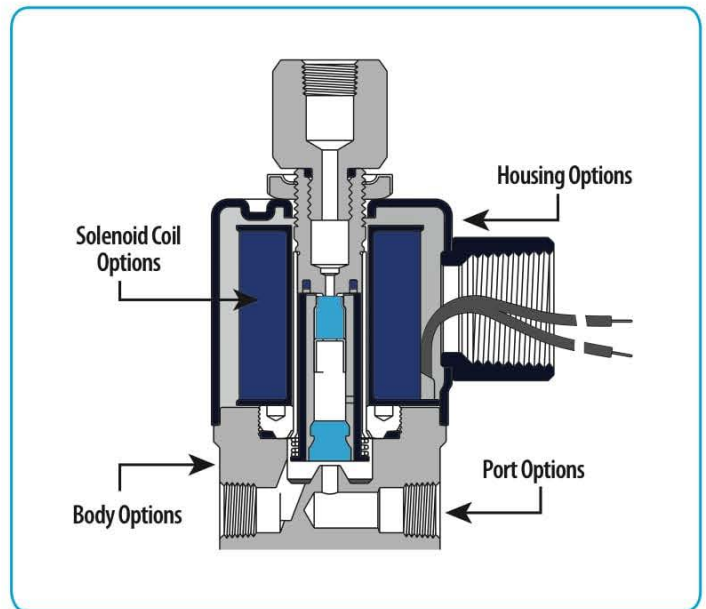
No matter what the configuration, the valve must be selected based on the cross-sectional area of its internal flow path – known as orifice size. For a given fluid at a given flow rate and temperature, the larger the orifice, the lower the pressure drop (ΔP) it will produce. So in addition to the type of valve and configuration, orifice size is an important specification that must be considered. Standard orifice sizes for Peter Paul valves run from 1/32 to 1/2 in.

SIZING AND SELECTION

Valves come in many standard port configurations but can be ordered with ports configured to an application. For example, ports can be placed in line with each other, parallel to each other, next to each other, or at right angles to each other.

They can also be ordered for use where fire or explosion hazards exist due to the presence of flammable gases or vapors, flammable liquids, combustible dust, or easily ignitable fibers. Hazardous location valves are recommended, or in some cases compulsory, where a high level of protection from explosion is required. For applications that require low power, a low watt version is also offered.

An increasingly popular option for general purpose or safety valves in pneumatic and hydraulic applications is valves with a low wattage solenoid. The low power draw of these valves has increased their application to include hot air, other media, through the use of different seals.



Sizing and selecting a solenoid valve requires evaluating several different options to meet mounting, media, and electrical requirements of the application.

Another consideration is high pressure valves, which operate at maximum pressures to 1,000 or even 3,000 psi. Medical, laboratory, instrumentation, industrial, and other companies that require high pressure bottled oxygen, carbon dioxide, and nitrogen use these valves in various applications.

Of course, the type of fluid and its temperature must be considered when choosing the valve's materials of construction. Standard materials from Peter Paul include stainless steel, brass, aluminum, and plastic, each offering unique capabilities of chemical and temperature compatibility.

MOUNTING AND INSTALLATION

Traditional valves are built in a configuration for in line mounting, which involves connecting two or three fluid lines to their respective valve port. The labor involved can be time consuming and especially difficult when working in cramped quarters. Therefore, many designers specify manifold mounting to reduce installation time and provide a more compact assembly of multiple valves.

The manifold contains a network of predesigned passageways so that each valve can be installed into a single cavity. In many cases, the valves can be installed and wired in an assembly area, tested, then installed as a single unit. Manifold mounting can dramatically reduce installation time and cost, provide cleaner and more compact designs, and improve reliability.



Shown here are samples of manifold, manifold mounted valves can save space, reduce potential leakage, cut installation time, and reduce costs over their line-mounted counterparts.

Selecting the type of valve, function, port configuration, body material, and orifice size addresses the fluid, or wetted, portion of the valve. The exterior of the valve addresses the housing configuration.

What type of solenoid (coil) will be used, and where with it be located? Will a DC or AC coil be used, and at what voltage? How will the coil be connected to the electrical supply?

CONCLUSION

In summary, choosing a solenoid valve for any application requires evaluating several characteristic of the application. First, what fluid will be controlled, and what is it's temperature, pressure and flow rate? Is a 2-way or 3-way valve needed, and should it be NO or NC? This will help determine what type and size valve should be specified. Will the valve be used in a potentially flammable, explosive, corrosive, or wet environment? What size piping will be used and at what orientation? What control voltage is available, and is the power AC or DC? How will the solenoid coil be connected to the control wiring?

Another important consideration is energy efficiency. Low watt valves can save substantial energy over their lifetime, making them a wise investment. They also produce little heat buildup, which can also be important, especially if multiple valves will be located within a single enclosure.

Opportunities in Energy Savings

Peter Paul has developed several lines of valves to meet today's demands for economy of space and energy consumption. For hazardous locations, Peter Paul's UL approved, low watt, miniature Series 50 EW hazardous location valve offers minimal space and energy requirements (only 5 W AC or DC) in volatile environments. This valve is the smallest hazardous location solenoid, with the best ambient and high temperature ratings on the market. A NEMA 4 rating is standard. The Series 50 EW miniature valve with encapsulated coil also serves as a general-purpose valve for pneumatic and hydraulic conditions.

Series EL 50 (1.8 W AC or DC) and ELL50 (0.85 W DC) is a line of miniature explosion-proof general-purpose or safety valves for pneumatic and hydraulic applications. The versatility of these valves accommodates the handling of hot air, hot water, refrigerants and many other media by the use of different inserts.

Series ELW and ELLW are also UL approved, low watt, miniature hazardous location valves offering compact design and low energy requirements in volatile environments. The valves draw 1.8 W using AC or DC power, whereas the ELLW version draws only ½ W in from DC. This valve uses the smallest hazardous location solenoid, with the best ambient and high temperature ratings on the market. A NEMA-4 rating is standard. The Series 50 ELW miniature valve with encapsulated coil also serves as a general-purpose valve for pneumatic and hydraulic conditions.

General purpose or safety valves for pneumatic and hydraulic applications, the Series 50 LW valve draws only 2.5 W using AC or DC power. Although not a safety valve, the Series 50 LLW valve draws only 0.65 W using DC. The versatility of these valves is increased to include the handling of hot air, hot water, refrigerants and many other media, by the use of different seals.

General purpose or safety valves for pneumatic and hydraulic applications, the Series 50 SLW valve draws only 1.8 W using AC or DC power. Although not a safety valve, the Series 50 SLLW valve draws only ½ W using DC. The versatility of these valves is increased to include the handling of hot air, hot water, refrigerants and many other media, by the use of different seals.

Finally, although it is not considered a low-watt valve because it requires 10 W power, the Series 20 Magnetic Latching Valve can be a super energy saver. That's because it requires a 10-W switching signal for less than ½ second. In fact, this type of valve is often used in remote areas where continuous power may not be available or with battery-powered portable equipment where power capacity is limited. It is also valuable in equipment such as in medical and chemical analyzers, where coil heating from continuous application of power is undesirable. Magnetic latching valves are available in 2-way NC, 2-way NO, and 3-way NC configurations.



Series 020

For 2-Way and 3-Way OEM applications. Peter Paul offers a complete line of operators to control most media. Available up to 1/4" orifice.



Series OE20 >> Hazardous Location

For 2-Way and 3-Way OEM application. Unitized design offers the advantages of simplicity of installation (unit is assembled and tested requiring no disassembly) common voltages and frequencies carry the U.L. and C.S.A. label. Approved for hazardous locations, Class I - Groups C and D (where atmosphere contains certain specific explosive gases), Class II - Group E (where atmosphere contains metallic dust), F (where atmosphere contains non-metallic combustible dust), and Group G (where atmosphere contains grain dust).



Series OH20

For 2-Way Normally Closed applications where high pressures are used - or where inert seals are required with bubble-tight sealing. Operator and precision press-in seat must be installed to factory specs. Consult factory for technical data and detail prints.



Series OEH20 >> Hazardous Location, High Pressure

For 2-Way Normally Closed applications where explosion-proof operators are required with high pressure ratings or inert seal requirement with bubble-tight sealing. Operator and precision press-in seat must be installed to factory specs.



Series 030

For 2-Way and 3-Way OEM applications. Peter Paul offers a complete line of operators to control most media. Available up to 3/16" orifice.



Series 050

For 2-Way and 3-Way OEM applications, Peter Paul offers a complete line of miniature operators to control most media. Available up to 1/8" orifice.



Series OE50 >> Hazardous Location

For 2-Way and 3-Way OEM application Peter Paul's unique, unitized design offers the advantages of simplicity of installation (unit is assembled and tested requiring no disassembly) for common voltages and frequencies and carries the U.L. and C.S.A. label. Approved for hazardous locations, Class I - Group C and D (where atmosphere contains certain specific explosive gases). Class II - Group E (where atmosphere contains metallic dust), and Group G (where atmosphere contains grain dust).



Series O70

For 2-Way and 3-Way OEM applications, Peter Paul offers a complete line of large capacity operators to control most media. Available up to 1/4" orifice.



Series O15

For 2-Way and 3-Way O.E.M. applications. Peter Paul offers a complete line of miniature operators to control most media. Available up to 3/32" orifices. This line's unique design incorporates the coil and magnetic structure encapsulated completely in molded epoxy.



Series OELW >> Hazardous Location

For 2-Way and 3-Way OEM applications, Peter Paul offers a complete line of miniature operators to control most media. Available up to 1/8" orifice.



Series O58

For two-way and three-way OEM applications, Peter Paul offers a complete line of low watt, miniature operators to control most media. Available up to 1/8" orifice.

GENERAL PURPOSE VALVES



Note: This valve also available as an operator. Refer to following page.

Series 58 >> Model 581

Low Watt – 2-Way Normally Open Valve

Easily interfaced with circuit boards and miniaturized components. The versatility is for connecting electronic signals to pneumatic outputs. The small size is ideal for stand alone (with #10-32 UNF-2B ports) or multiple valves mounted on one manifold. Air and other common gases – filtration recommended – 30 microns or less.

- May be used to “pilot” larger valves.
- Ideal for micro electronic production equipment.
- Great for medical and chemical analytical applications.
- Can operate directly from most programmable controllers.
- High quality engineering.

OPERATING CONDITIONS

Media: Air and other common gases – filtration recommended – 30 microns or less.

Valve Temperature Range: Standard Valves – 5°F (-15°C) to 122°F (50°C) ambient; media.

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 1500 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 14 to 220V AC 60 HZ. and 13 to 202V AC 50 HZ. – 3.0 to 150V DC

Nominal Power: AC – 3.5 Watts, DC – 3.5 Watts

Coil Construction: Molded Class A with lead wires and Micro DIN.

Typical Response Time on Air: AC – 3 to 9 Milliseconds, DC – 9 Milliseconds

Operating Speed: Up to 1000 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Polyester Plastic (Std.), Round Brass or Stainless Steel (Opt.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: #10-32 UNF-2B

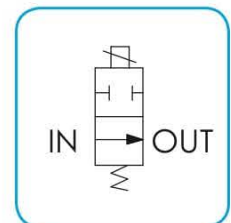
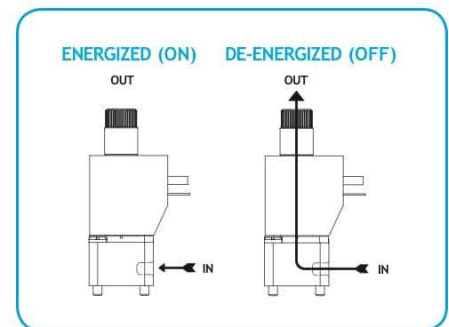
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

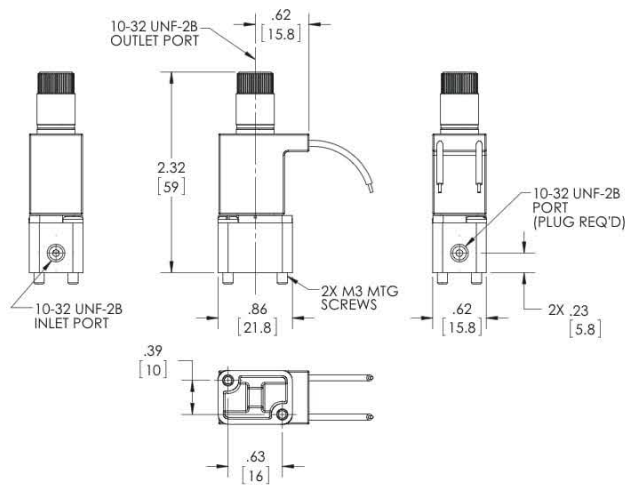
Valve Weight: 0.13 lbs

Repair Packs: See table on proceeding page.

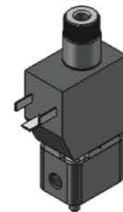
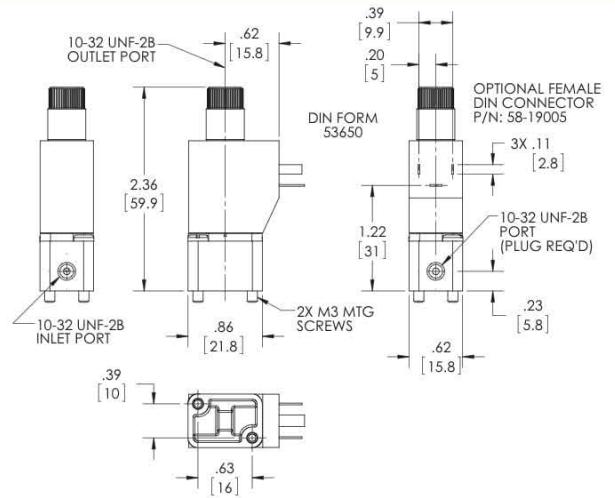
Options: Round Stainless Steel or Brass Body, Male Stud Mount, Manual Override, M5 Ports and Manifold Mount.*

* Consult representative or factory for options and specifications.





**SERIES 58
MODEL 581
2WNO
MOLDED WITH LEADS**



**SERIES 58
MODEL 581
2WNO
DIN STYLE**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		ORIFICE SIZE N.O.	CV FACTOR N.O.	VALVE NUMBER	
AC	DC			LEAD WIRE	MICRO DIN
300	300	0.6 mm	.010	581A19PGM	581A19PE
275	275	0.8 mm	.020	581F19PGM	581F19PE
230	230	1.0 mm	.030	581M19PGM	581M19PE
150	150	1.2 mm	.034	581W19PGM	581W19PE

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. FOR EXAMPLES: VALVE (581M19PGM 120/60) REPAIR PACK (K581M19 AC).

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (O581MDPGM 120/60)

GENERAL PURPOSE VALVES



Note: This valve also available as an operator. Refer to following page.

Series 58 >> Model 582

Low Watt – 2-Way Normally Closed Valve

Easily interfaced with circuit boards and miniaturized components. The versatility is for connecting electronic signals to pneumatic outputs. The small size is ideal for stand alone (with #10-32 UNF-2B ports) or multiple valves mounted on one manifold. Air and other common gases – filtration recommended – 30 microns or less.

- May be used to “pilot” larger valves.
- Ideal for micro electronic production equipment.
- Great for medical and chemical analytical applications.
- Can operate directly from most programmable controllers.
- High quality engineering.

OPERATING CONDITIONS

Media: Air and other common gases – filtration recommended – 30 microns or less.

Valve Temperature Range: Standard Valves – 5°F (-15°C) to 122°F (50°C) ambient; media.

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 1500 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 14 to 220V AC 60 HZ. and 13 to 202V AC 50 HZ. – 3.0 to 150V DC

Nominal Power: AC – 3.5, Watts, DC – 3.5 Watts

Coil Construction: Molded Class A with lead wires and Micro DIN.

Typical Response Time on Air: AC – 3 to 9 Milliseconds, DC – 9 Milliseconds

Operating Speed: Up to 1000 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Polyester Plastic (Std.), Round Brass or Stainless Steel (Opt.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: #10-32 UNF-2B

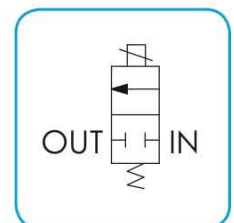
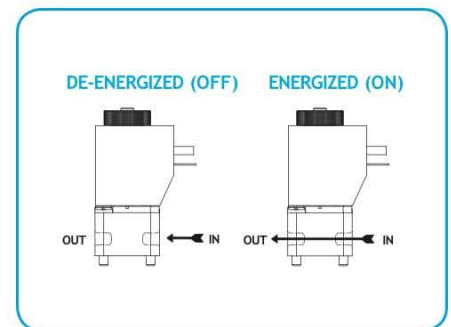
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

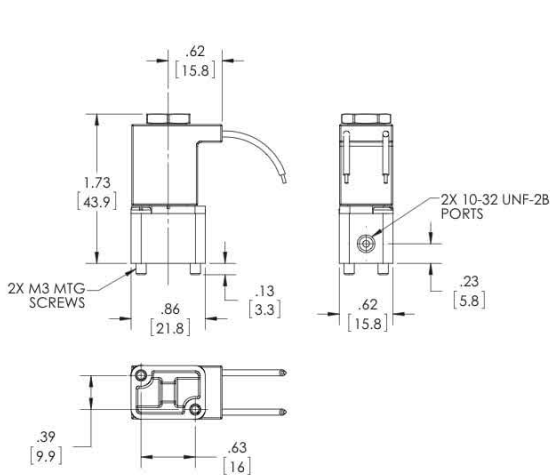
Valve Weight: 0.13 lbs

Repair Packs: See table on proceeding page.

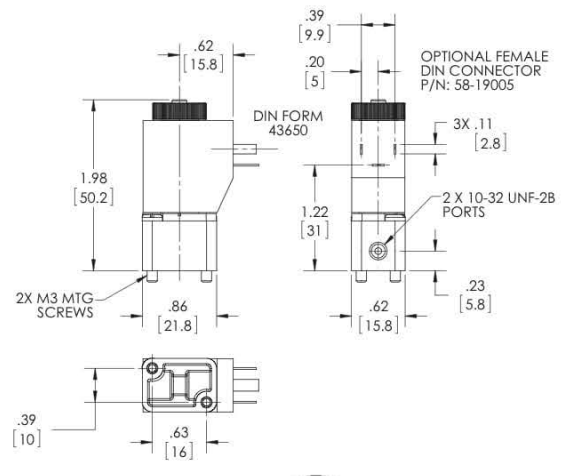
Options: Round Stainless Steel or Brass Body, Male Stud Mount, Manual Override, M5 Ports and Manifold Mount.*

* Consult representative or factory for options and specifications.





**SERIES 58
MODEL 582
2WNC
MOLDED WITH LEADS**



**SERIES 58
MODEL 582
2WNC
DIN STYLE**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		ORIFICE SIZE	CV FACTOR	VALVE NUMBER	
AC	DC	N.C.	N.C.	LEAD WIRE	MICRO DIN
300	300	0.6 mm	.010	582A19DGM	582A19DE
250	250	0.8 mm	.020	582F19DGM	582F19DE
150	150	1.0 mm	.030	582M19DGM	582M19DE
135	135	1.2 mm	.034	582W19DGM	582W19DE
100	100	1.4 mm	—	582Y21DGM*	582Y21DE*
25	25	1.6 mm	—	582J21DGM*	582J21DE*

* Stainless Steel Bodies

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. FOR EXAMPLES: VALVE (582M19DGM 120/60) REPAIR PACK (K582M19 AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (O582MDDGM 120/60)

GENERAL PURPOSE VALVES



Note: This valve also available as an operator. Refer to following page.

Series 58 >> Model 583

Low Watt – 3-Way Normally Closed Valve – Exhaust to Atmosphere

Easily interfaced with circuit boards and miniaturized components. The versatility is for connecting electronic signals to pneumatic outputs. The small size is ideal for stand alone (with #10-32 UNF-2B ports) or multiple valves mounted on one manifold. Air and other common gases – filtration recommended – 30 microns or less.

- May be used to “pilot” larger valves.
- Ideal for micro electronic production equipment.
- Great for medical and chemical analytical applications.
- Can operate directly from most programmable controllers.
- High quality engineering.

OPERATING CONDITIONS

Media: Air and other common gases – filtration recommended – 30 microns or less.

Valve Temperature Range: Standard Valves – 5°F (-15°C) to 122°F (50°C) ambient; media.

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 1500 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 14 to 220V AC 60 HZ. and 13 to 202V AC 50 HZ. – 3.0 to 150V DC

Nominal Power: AC – 3.5 Watts, DC – 3.5 Watts

Coil Construction: Molded Class A with lead wires and Micro DIN.

Typical Response Time on Air: AC – 3 to 9 Milliseconds, DC – 9 Milliseconds

Operating Speed: Up to 1000 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Polyester Plastic (Std.), Round Brass or Stainless Steel (Opt.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: #10-32 UNF-2B

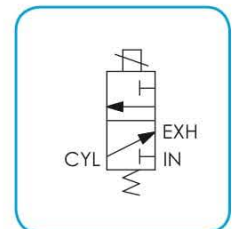
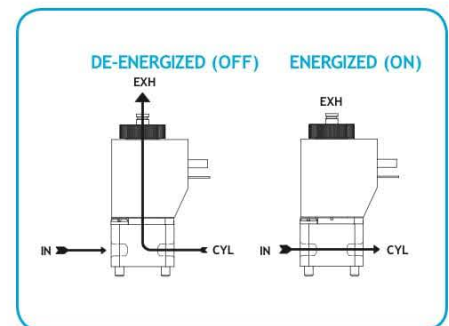
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

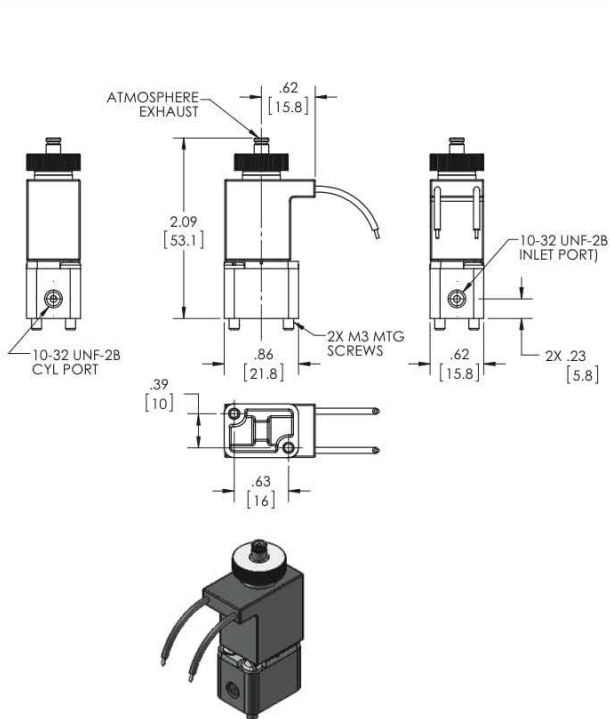
Valve Weight: 0.13 lbs

Repair Packs: See table on proceeding page.

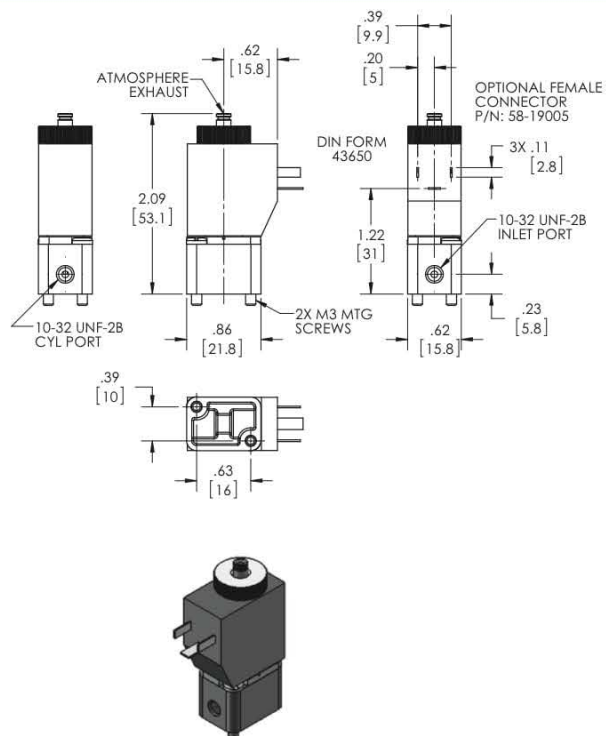
Options: Round Stainless Steel or Brass Body, Male Stud Mount, Manual Override, M5 Ports and Manifold Mount.*

* Consult representative or factory for options and specifications.





**SERIES 58
MODEL 583
3WNC EXHAUST TO ATMOSPHERE
MOLDED WITH LEADS**



**SERIES 58
MODEL 583
3WNC EXHAUST TO ATMOSPHERE
DIN STYLE**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		ORIFICE SIZE		CV FACTOR		VALVE NUMBER	
AC	DC	N.C.	N.O.	N.C.	N.O.	LEAD WIRE	MICRO DIN
300	300	0.6 mm	0.6 mm	.010	.010	583AA19DGM	583AA19DE
300	300	0.6 mm	0.8 mm	.010	.020	583AF19DGM	583AF19DE
250	250	0.8 mm	0.8 mm	.020	.020	583FF19DGM	583FF19DE
145	145	1.0 mm	1.0 mm	.030	.030	583MM19DGM	583MM19DE
100	100	1.2 mm	1.2 mm	.034	.034	583WW19DGM	583WW19DE

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. FOR EXAMPLES: VALVE (583MM19DGM 120/60) REPAIR PACK (K583MM19 AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (Q583MMDDGM 120/60)

GENERAL PURPOSE VALVES



Note: This valve also available as an operator. Refer to following page.

Series 58 >> Model 583

Low Watt – 3-Way Normally Closed Valve – Piped Exhaust

Easily interfaced with circuit boards and miniaturized components. The versatility is for connecting electronic signals to pneumatic outputs. The small size is ideal for stand alone (with #10-32 UNF-2B ports) or multiple valves mounted on one manifold. Air and other common gases – filtration recommended – 30 microns or less.

- May be used to “pilot” larger valves.
- Ideal for micro electronic production equipment.
- Great for medical and chemical analytical applications.
- Can operate directly from most programmable controllers.
- High quality engineering.

OPERATING CONDITIONS

Media: Air and other common gases – filtration recommended – 30 microns or less.

Valve Temperature Range: Standard Valves – 5°F (-15°C) to 122°F (50°C) ambient; media.

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 1500 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 14 to 220V AC 60 HZ. and 13 to 202V AC 50 HZ. – 3.0 to 150V DC

Nominal Power: AC – 3.5 Watts, DC – 3.5 Watts

Coil Construction: Molded Class A with lead wires and Micro DIN.

Typical Response Time on Air: AC – 3 to 9 Milliseconds, DC – 9 Milliseconds

Operating Speed: Up to 1000 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Polyester Plastic (Std.), Round Brass or Stainless Steel (Opt.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: #10-32 UNF-2B

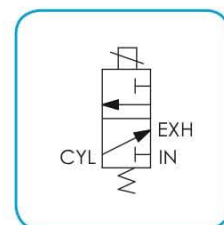
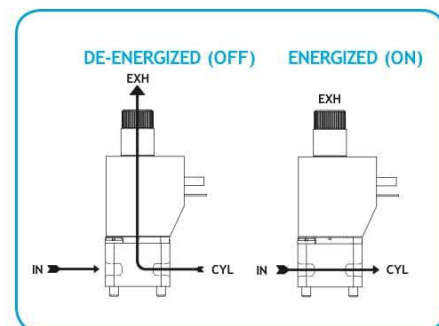
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

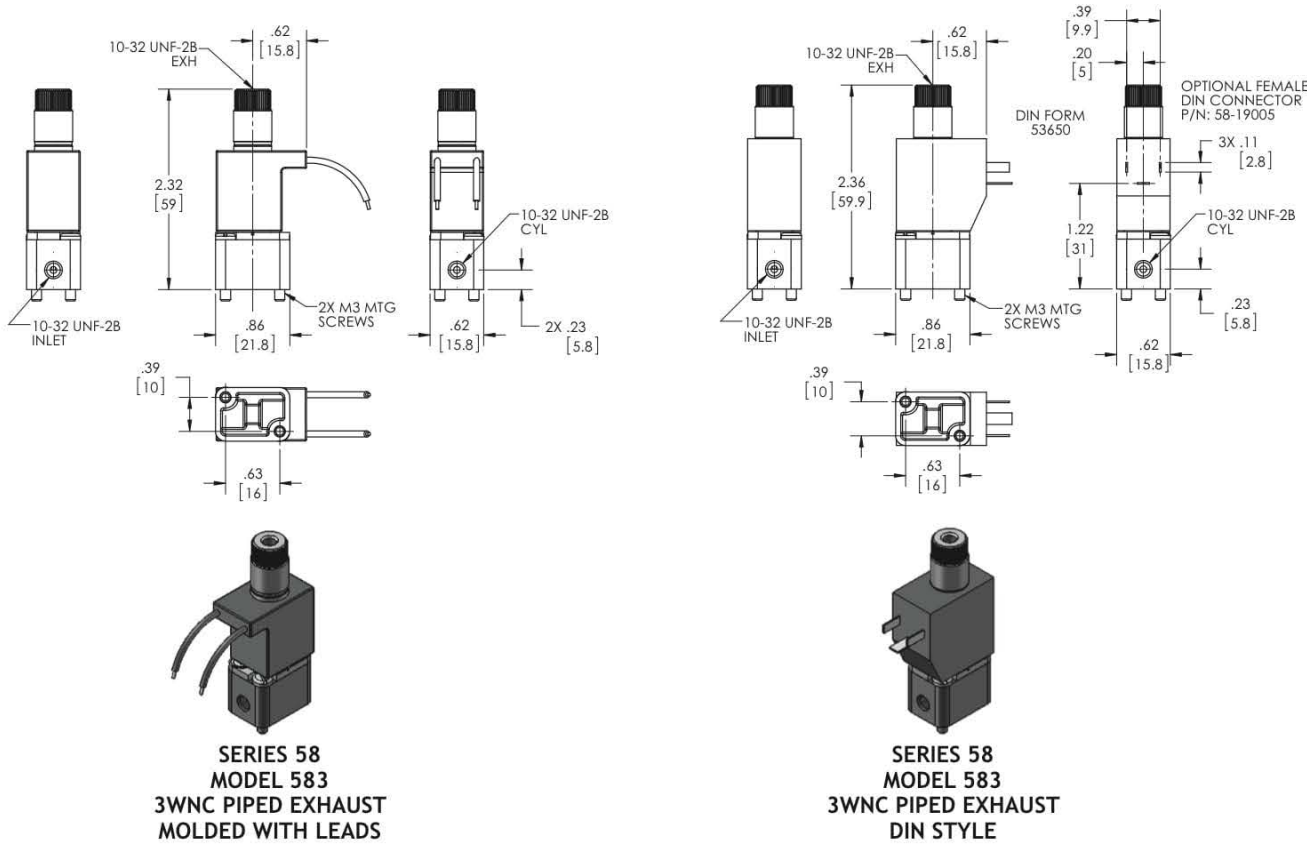
Valve Weight: 0.13 lbs

Repair Packs: See table on proceeding page.

Options: Round Stainless Steel or Brass Body, Male Stud Mount, Manual Override, M5 Ports and Manifold Mount.*

* Consult representative or factory for options and specifications.





VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		ORIFICE SIZE		CV FACTOR		VALVE NUMBER	
AC	DC	N.C.	N.O.	N.C.	N.O.	LEAD WIRE	MICRO DIN
300	300	0.6 mm	0.6 mm	.010	.010	583AA19PGM	583AA19PE
300	300	0.6 mm	0.8 mm	.010	.020	583AF19PGM	583AF19PE
250	250	0.8 mm	0.8 mm	.020	.020	583FF19PGM	583FF19PE
145	145	1.0 mm	1.0 mm	.030	.030	583MM19PGM	583MM19PE
100	100	1.2 mm	1.2 mm	.034	.034	583WW19PGM	583WW19PE

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. FOR EXAMPLES: VALVE (583MM19PGM 120/60) REPAIR PACK (K583MM19D AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (O583MMDPGM 120/60)

GENERAL PURPOSE VALVES



Note: This valve also available as an operator. Refer to following page.

Series 58 >> Model 584

Low Watt – 3-Way Normally Open Valve

Easily interfaced with circuit boards and miniaturized components. The versatility is for connecting electronic signals to pneumatic outputs. The small size is ideal for stand alone (with #10-32 UNF-2B ports) or multiple valves mounted on one manifold. Air and other common gases – filtration recommended – 30 microns or less.

- May be used to “pilot” larger valves.
- Ideal for micro electronic production equipment.
- Great for medical and chemical analytical applications.
- Can operate directly from most programmable controllers.
- High quality engineering.

OPERATING CONDITIONS

Media: Air and other common gases – filtration recommended – 30 microns or less.

Valve Temperature Range: Standard Valves – 5°F (-15°C) to 122°F (50°C) ambient; media.

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 1500 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 14 to 220V AC 60 HZ. and 13 to 202V AC 50 HZ. – 3.0 to 150V DC

Nominal Power: AC – 3.5 Watts, DC – 3.5 Watts

Coil Construction: Molded Class A with lead wires and Micro DIN.

Typical Response Time on Air: AC – 3 to 9 Milliseconds, DC – 9 Milliseconds

Operating Speed: Up to 1000 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Polyester Plastic (Std.), Round Brass or Stainless Steel (Opt.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: #10-32 UNF-2B

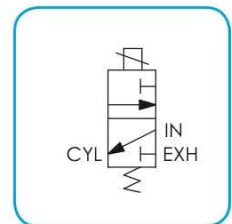
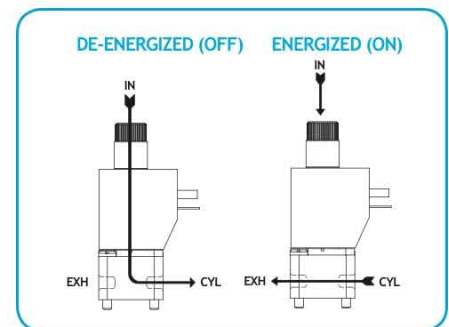
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

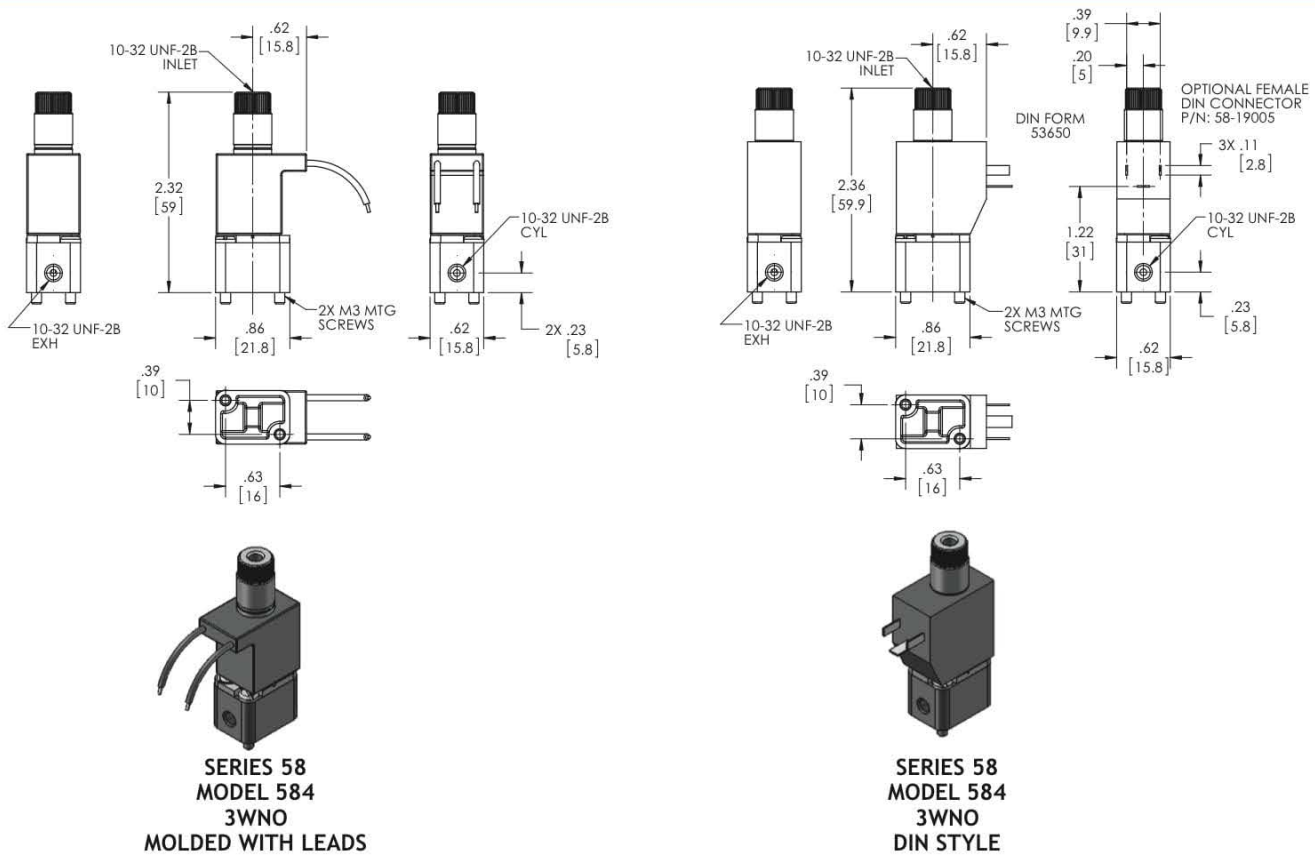
Valve Weight: 0.13 lbs

Repair Packs: See table on proceeding page.

Options: Round Stainless Steel or Brass Body, Male Stud Mount, Manual Override, M5 Ports and Manifold Mount.*

* Consult representative or factory for options and specifications.





**SERIES 58
MODEL 584
3WNO
MOLDED WITH LEADS**

**SERIES 58
MODEL 584
3WNO
DIN STYLE**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		ORIFICE SIZE		CV FACTOR		VALVE NUMBER	
AC	DC	N.O.	N.C.	N.O.	N.C.	LEAD WIRE	MICRO DIN
145	145	0.6 mm	0.6 mm	.010	.010	584AA19PGM	584AA195PE
100	100	0.8 mm	0.8 mm	.020	.020	584FF19PGM	584FF19PE
50	50	1.0 mm	1.0 mm	.030	.030	584MM19PGM	584MM19PE
40	40	1.2 mm	1.2 mm	.034	.034	584WW19PGM	584WW19PE

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. FOR EXAMPLES: VALVE (584MM19PGM 120/60) REPAIR PACK (K584MM19D AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (O584MMDPGM 120/60)



Note: This valve also available as an operator. Refer to following page.

Series 58 >> Model 585

Low Watt – 3-Way Directional Control Valve

Easily interfaced with circuit boards and miniaturized components. The versatility is for connecting electronic signals to pneumatic outputs. The small size is ideal for stand alone (with #10-32 UNF-2B ports) or multiple valves mounted on one manifold. Air and other common gases – filtration recommended – 30 microns or less.

- May be used to “pilot” larger valves.
- Ideal for micro electronic production equipment.
- Great for medical and chemical analytical applications.
- Can operate directly from most programmable controllers.
- High quality engineering.

OPERATING CONDITIONS

Media: Air and other common gases – filtration recommended – 30 microns or less.

Valve Temperature Range: Standard Valves – 5°F (-15°C) to 122°F (50°C) ambient; media.

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 1500 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 14 to 220V AC 60 HZ. and 13 to 202V AC 50 HZ. – 3.0 to 150V DC

Nominal Power: AC – 3.5 Watts, DC – 3.5 Watts

Coil Construction: Molded Class A with lead wires and Micro DIN.

Typical Response Time on Air: AC – 3 to 9 Milliseconds, DC – 9 Milliseconds

Operating Speed: Up to 1000 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Polyester Plastic (Std.), Round Brass or Stainless Steel (Opt.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: #10-32 UNF-2B

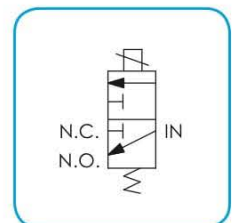
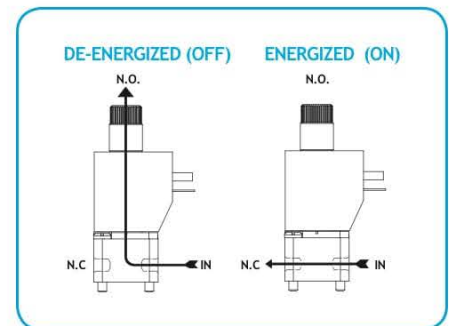
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

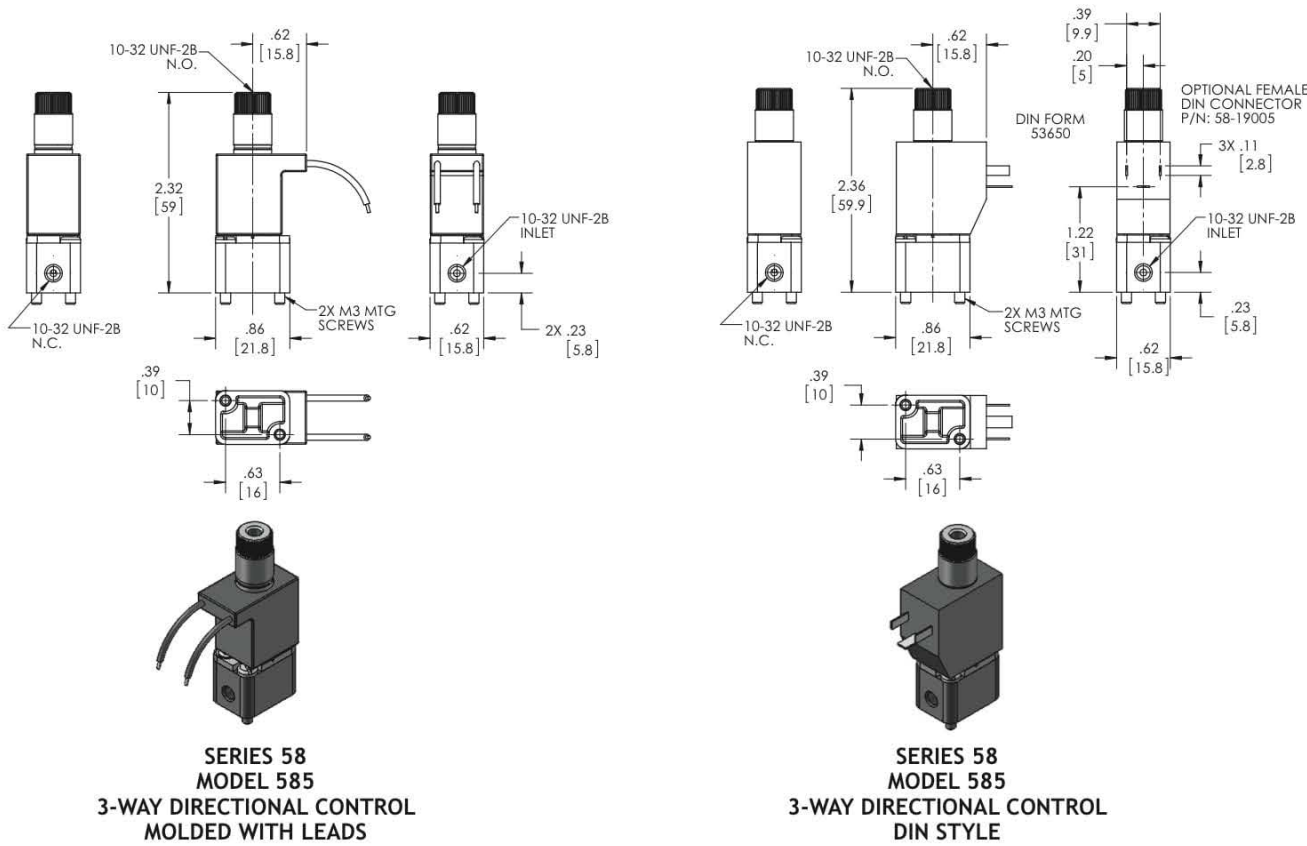
Valve Weight: 0.13 lbs

Repair Packs: See table on proceeding page.

Options: Round Stainless Steel or Brass Body, Male Stud Mount, Manual Override, M5 Ports and Manifold Mount.*

* Consult representative or factory for options and specifications.





**SERIES 58
MODEL 585
3-WAY DIRECTIONAL CONTROL
MOLDED WITH LEADS**

**SERIES 58
MODEL 585
3-WAY DIRECTIONAL CONTROL
DIN STYLE**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		ORIFICE SIZE		CV FACTOR		VALVE NUMBER	
AC	DC	N.C.	N.O.	N.C.	N.O.	LEAD WIRE	MICRO DIN
300	300	0.6 mm	0.6 mm	.010	.010	585AA19PGM	585AA19PE
200	200	0.8 mm	0.8 mm	.020	.020	585FF19PGM	585FF19PE
50	50	1.0 mm	1.0 mm	.030	.030	585MM19PGM	585MM19PE
35	35	1.2 mm	1.2 mm	.034	.034	585WW19PGM	585WW19PE

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. FOR EXAMPLES: VALVE (585MM19PGM 120/60) REPAIR PACK (K585MM19 AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (O585MMDPGM 120/60)

GENERAL PURPOSE VALVES



Note: This valve also available as an operator. Refer to following page.

Series 58 >> Model 586

Low Watt – 3-Way Multi-Purpose Valve

Easily interfaced with circuit boards and miniaturized components. The versatility is for connecting electronic signals to pneumatic outputs. The small size is ideal for stand alone (with #10-32 UNF-2B ports) or multiple valves mounted on one manifold. Air and other common gases – filtration recommended – 30 microns or less.

- May be used to “pilot” larger valves.
- Ideal for micro electronic production equipment.
- Great for medical and chemical analytical applications.
- Can operate directly from most programmable controllers.
- High quality engineering.

OPERATING CONDITIONS

Media: Air and other common gases – filtration recommended – 30 microns or less.

Valve Temperature Range: Standard Valves – 5°F (-15°C) to 122°F (50°C) ambient; media.

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 1500 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 14 to 220V AC 60 HZ. and 13 to 202V AC 50 HZ. – 3.0 to 150V DC

Nominal Power: AC – 3.5 Watts, DC – 3.5 Watts

Coil Construction: Molded Class A with lead wires and Micro DIN.

Typical Response Time on Air: AC – 3 to 9 Milliseconds, DC – 9 Milliseconds

Operating Speed: Up to 1000 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Polyester Plastic (Std.), Round Brass or Stainless Steel (Opt.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: #10-32 UNF-2B

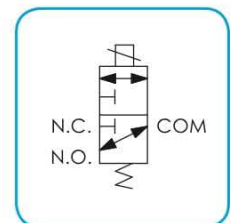
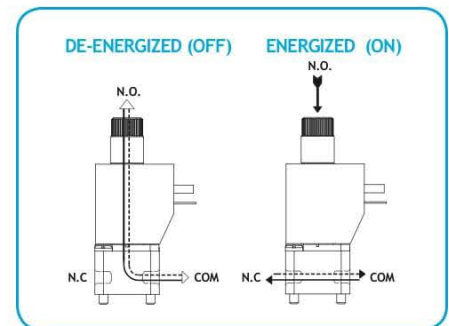
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

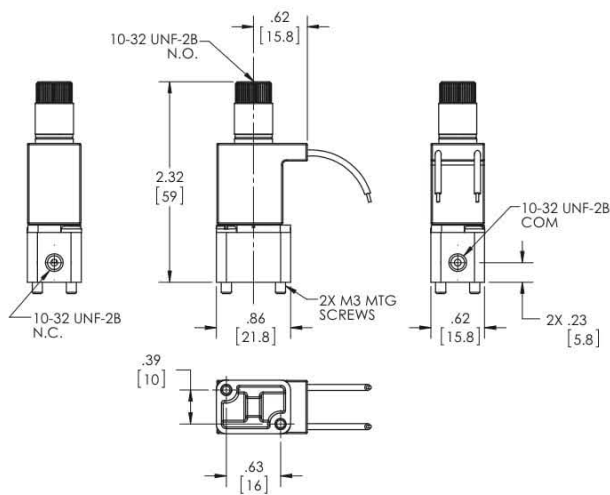
Valve Weight: 0.13 lbs

Repair Packs: See table on proceeding page.

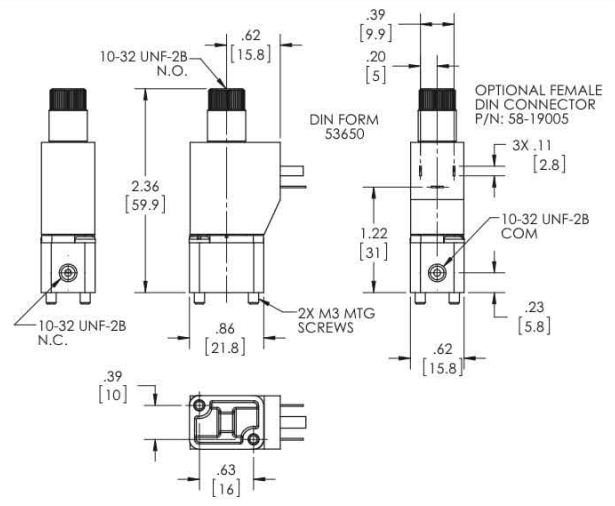
Options: Round Stainless Steel or Brass Body, Male Stud Mount, Manual Override, M5 Ports and Manifold Mount.*

* Consult representative or factory for options and specifications.





**SERIES 58
MODEL 586
3-WAY MULTI-PURPOSE
MOLDED WITH LEADS**



**SERIES 58
MODEL 586
3-WAY MULTI-PURPOSE
DIN STYLE**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		ORIFICE SIZE		CV FACTOR		VALVE NUMBER	
AC	DC	N.C.	N.O.	N.C.	N.O.	LEAD WIRE	MICRO DIN
145	145	0.6 mm	0.6 mm	.010	.010	586AA19PGM	586AA19PE
100	100	0.8 mm	0.8 mm	.020	.020	586FF19PGM	586FF19PE
50	50	1.0 mm	1.0 mm	.030	.030	586MM19PGM	586MM19PE
20	20	1.2 mm	1.2 mm	.034	.034	586WW19PGM	586WW19PE

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. FOR EXAMPLES: VALVE (586MM19PGM 120/60) REPAIR PACK (K586MM19 AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (O586MMDPGM 120/60)

GENERAL PURPOSE VALVES



Note: This valve also available as an operator. Refer to following page.

Series 15 >> Model 151

2-Way Normally Open Valve

The little black box – magnetic components encased in epoxy for durability and reliability. Interior parts are stainless steel and anodized aluminum. The valves may be used with air, inert gas and liquid media at pressures from vacuum to 400 psi – depending upon orifice size and configuration. For those who require extra heat resistance and media compatibility, FKM and other elastomers are available.

- **Small, lightweight and economical.**
- **Operating pressures from vacuum to 400 psi.**
- **Quality design and construction.**

OPERATING CONDITIONS

Media: Air, water, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, and many oils require special seal materials. (Series 15 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5,000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 4.8 to 277V AC 60 HZ. and 4.4 to 255V AC 50 HZ. – 3.0 to 180V DC

Nominal Power: AC – 8.5 Watts, DC – 10.5 Watts

Coil Construction: Molded Class F. (155°C)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Anodized Aluminum (Std.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: 1/8" NPT (Std.)

Housing: Lead wires, 1/2" NPT Conduit and DIN Style Connector

Listings: Most valves are UL and CSA listed.*

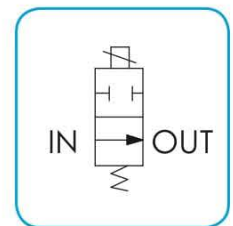
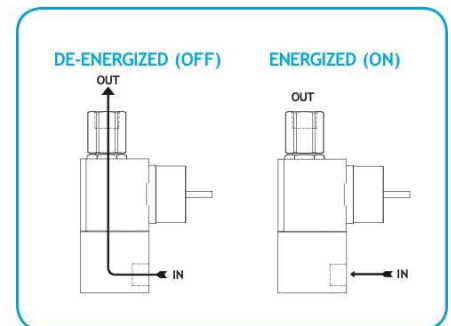
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

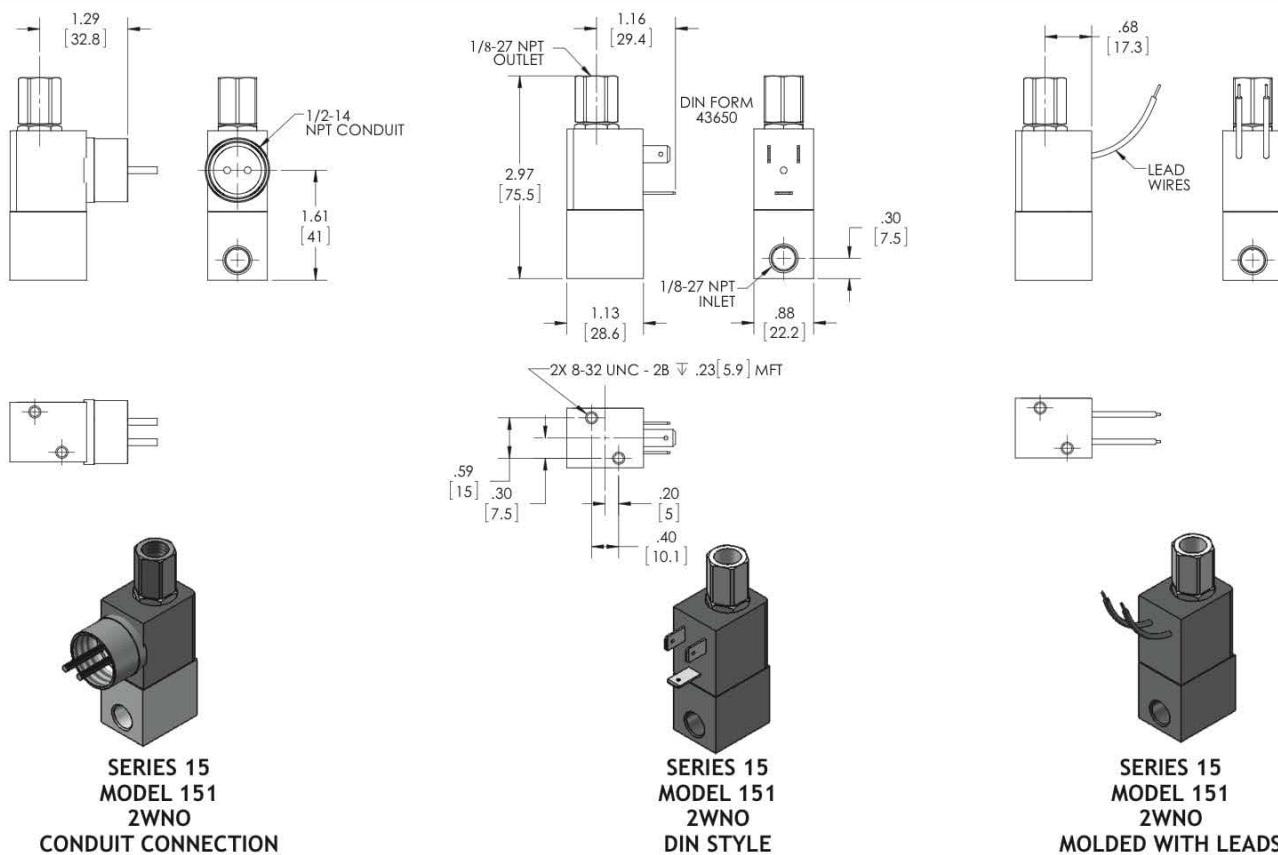
Valve Weight: 0.27 lb to 0.30 lb depending on model and housing style.

Repair Packs: See table on proceeding page.

Options: Round Brass or Stainless Steel Body, Stackable Construction, Alternate Elastomers and Magnetic Latching Coil. Female DIN Style Connector Part Number 50-17029 *

* Consult representative or factory for options and specifications.





VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		ORIFICE SIZE	CV FACTOR	LEAD WIRE	VALVE NUMBER	
AC	DC	N.O.	N.O.		DIN STYLE	CONDUIT HOUSING
400	400	1/32	.020	151G2XGM	151G2XEM	151G2XCM
200	200	3/64	.048	151H2XGM	151H2XEM	151H2XCM
125	125	1/16	.075	151J2XGM	151J2XEM	151J2XCM
40	40	3/32	.130	151K2XGM	151K2XEM	151K2XCM

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. FOR EXAMPLES: VALVE (151J2XGM 120/60) REPAIR PACK (K151JX AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (O151JD \underline{X} GM 120/60)

GENERAL PURPOSE VALVES



Note: This valve also available as an operator. Refer to following page.

Series 15 >> Model 152

2-Way Normally Closed Valve

The little black box – magnetic components encased in epoxy for durability and reliability. Interior parts are stainless steel and anodized aluminum. The valves may be used with air, inert gas and liquid media at pressures from vacuum to 500 psi – depending upon orifice size and configuration. For those who require extra heat resistance and media compatibility, FKM and other elastomers are available.

- **Small, lightweight and economical.**
- **Operating pressures from vacuum to 500 psi.**
- **Quality design and construction.**

OPERATING CONDITIONS

Media: Air, water, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, and many oils require special seal materials. (Series 15 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5,000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 4.8 to 277V AC 60 HZ. and 4.4 to 255V AC 50 HZ. – 3.0 to 180V DC

Nominal Power: AC – 7.0 Watts, DC – 10.5 Watts

Coil Construction: Molded Class F. (155°C)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Anodized Aluminum (Std.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: 1/8" NPT (Std.)

Housing: Lead wires, 1/2" NPT Conduit and DIN Style Connector.

Listings: Most valves are UL and CSA listed.*

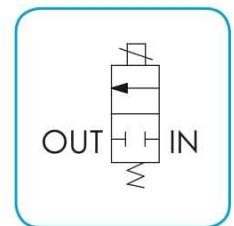
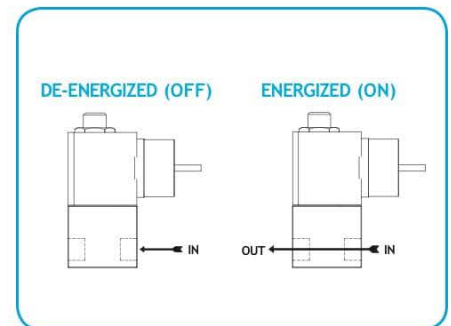
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

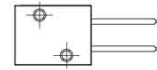
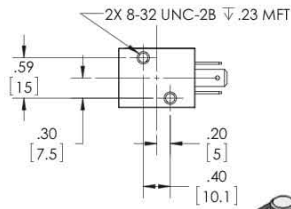
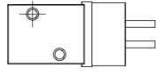
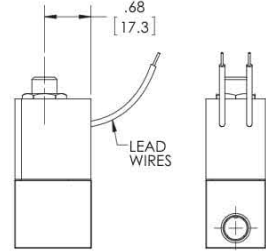
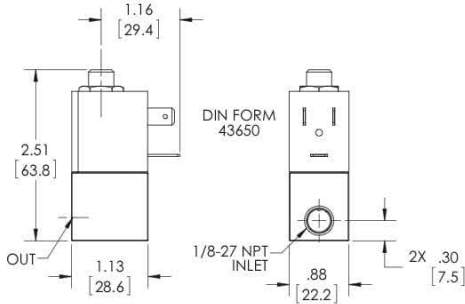
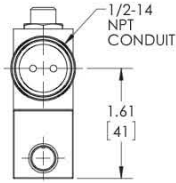
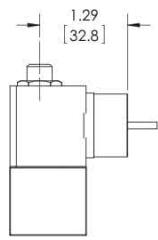
Valve Weight: 0.27 lb to 0.30 lb depending on model and housing style.

Repair Packs: See table on proceeding page.

Options: Round Brass or Stainless Steel Body, Stackable Construction, Alternate Elastomers and Magnetic Latching Coil. Female DIN Style Connector Part Number 50-17029 *

* Consult representative or factory for options and specifications.





**SERIES 15
MODEL 152
2WNC
CONDUIT CONNECTION**

**SERIES 15
MODEL 152
2WNC
DIN STYLE**

**SERIES 15
MODEL 152
2WNC
MOLDED WITH LEADS**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		ORIFICE SIZE	CV FACTOR	LEAD WIRE	VALVE NUMBER	CONDUIT HOUSING
AC	DC	N.C.	N.C.		DIN STYLE	
500	500	1/32	.022	152G2DGM	152G2DEM	152G2DCM
400	400	3/64	.055	152H2DGM	152H2DEM	152H2DCM
200	200	1/16	.075	152J2DGM	152J2DEM	152J2DCM
150	100	3/32	.130	152K2DGM	152K2DEM	152K2DCM

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (152J2DGM 120/60) REPAIR PACK (K152JD AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (O152JDDGM 120/60)

GENERAL PURPOSE VALVES



Note: This valve also available as an operator. Refer to following page.

Series 15 >> Model 153

3-Way Normally Closed Valve – Exhaust to Atmosphere

The little black box – magnetic components encased in epoxy for durability and reliability. Interior parts are stainless steel and anodized aluminum. The valves may be used with air, inert gas and liquid media at pressures from vacuum to 200 psi – depending upon orifice size and configuration. For those who require extra heat resistance and media compatibility, FKM and other elastomers are available.

- **Small, lightweight and economical.**
- **Operating pressures from vacuum to 200 psi.**
- **Quality design and construction.**

OPERATING CONDITIONS

Media: Air, water, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, and many oils require special seal materials. (Series 15 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5,000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 4.8 to 277V AC 60 HZ. and 4.4 to 255V AC 50 HZ. – 3.0 to 180V DC

Nominal Power: AC – 8.5 Watts, DC – 10.5 Watts

Coil Construction: Molded Class F. (155°C)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Anodized Aluminum (Std.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: 1/8" NPT (Std.)

Housing: Lead wires, 1/2" NPT Conduit and DIN Style Connector.

Listings: Most valves are UL and CSA listed.*

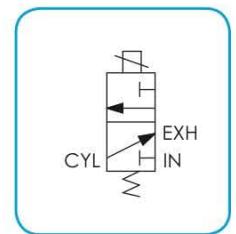
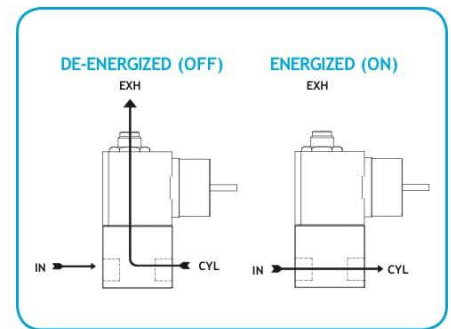
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

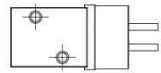
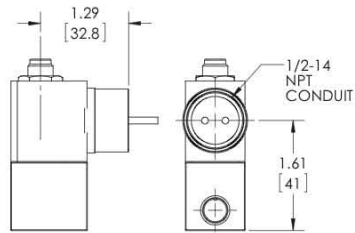
Valve Weight: 0.27 lb to 0.30 lb depending on model and housing style.

Repair Packs: See table on proceeding page.

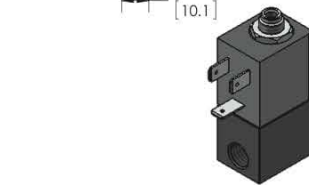
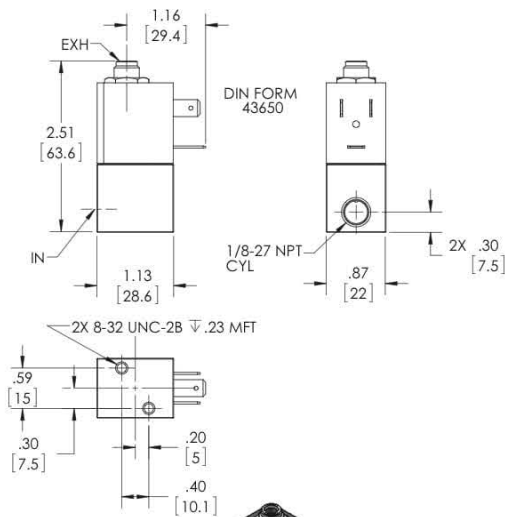
Options: Round Brass or Stainless Steel Body, Stackable Construction, Alternate Elastomers and Magnetic Latching Coil. Female DIN Style Connector Part Number 50-17029 *

* Consult representative or factory for options and specifications.

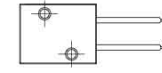
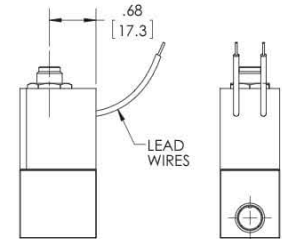




**SERIES 15
MODEL 153
3WNC EXHAUST TO ATMOSPHERE
CONDUIT CONNECTION**



**SERIES 15
MODEL 153
3WNC EXHAUST TO ATMOSPHERE
DIN STYLE**



**SERIES 15
MODEL 153
3WNC EXHAUST TO ATMOSPHERE
MOLDED WITH LEADS**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		ORIFICE SIZE		CV FACTOR		LEAD WIRE	VALVE NUMBER	
AC	DC	N.C.	N.O.	N.C.	N.O.		DIN STYLE	CONDUIT HOUSING
200	200	1/32	1/32	.022	.020	153GG2DGM	153GG2DEM	153GG2DCM
150	150	3/64	3/64	.055	.048	153HH2DGM	153HH2DEM	153HH2DCM
150	150	3/64	1/16	.055	.075	153HJ2DGM	153HJ2DEM	153HJ2DCM
100	100	1/16	1/16	.075	.075	153JJ2DGM	153JJ2DEM	153JJ2DCM
60	60	3/32	1/16	.130	.075	153KJ2DGM	153KJ2DEM	153KJ2DCM
50	50	3/32	3/32	.130	.130	153KK2DGM	153KK2DEM	153KK2DCM

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (153JJ2DGM 120/60) REPAIR PACK (K153JD AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (O153JJDDGM 120/60)

GENERAL PURPOSE VALVES



Note: This valve also available as an operator. Refer to following page.

Series 15 >> Model 153

3-Way Normally Closed Valve – Piped Exhaust

The little black box – magnetic components encased in epoxy for durability and reliability. Interior parts are stainless steel and anodized aluminum. The valves may be used with air, inert gas and liquid media at pressures from vacuum to 200 psi – depending upon orifice size and configuration. For those who require extra heat resistance and media compatibility, FKM and other elastomers are available.

- **Small, lightweight and economical.**
- **Operating pressures from vacuum to 200 psi.**
- **Quality design and construction.**

OPERATING CONDITIONS

Media: Air, water, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, and many oils require special seal materials. (Series 15 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5,000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 4.8 to 277V AC 60 HZ. and 4.4 to 255V AC 50 HZ. – 3.0 to 180V DC

Nominal Power: AC – 8.5 Watts, DC – 10.5 Watts

Coil Construction: Molded Class F. (155°C)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Anodized Aluminum (Std.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: 1/8" NPT (Std.)

Housing: Lead wires, 1/2" NPT Conduit and DIN Style Connector.

Listings: Most valves are UL and CSA listed.*

Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

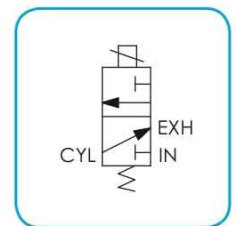
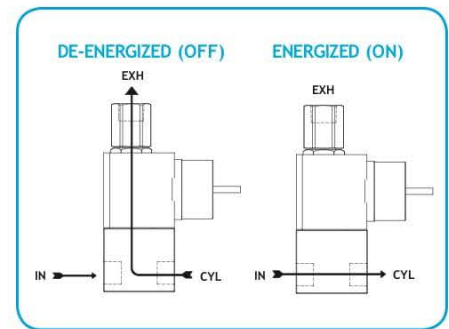
Valve Weight: 0.27 lb to 0.30 lb depending on model and housing style.

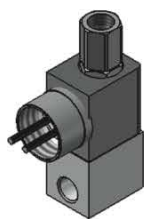
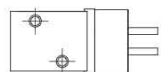
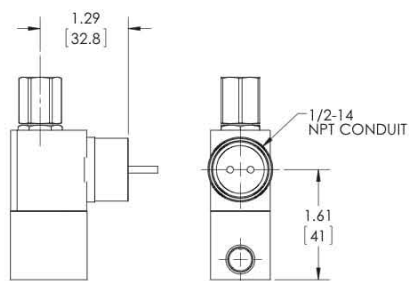
Repair Packs: See table on proceeding page.

Options: Round Brass or Stainless Steel Body, Stackable Construction, Alternate Elastomers and Magnetic Latching Coil.

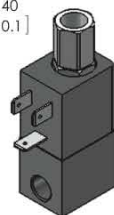
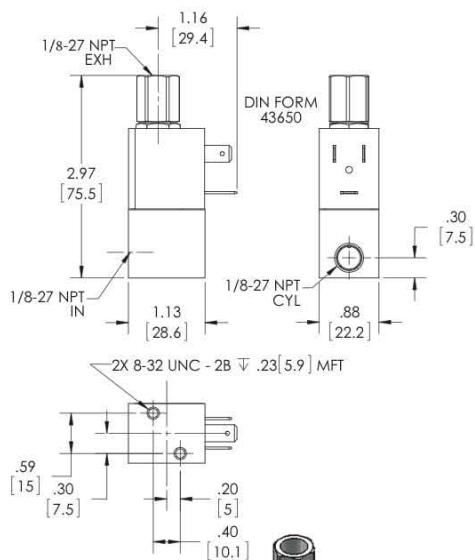
Female DIN Style Connector Part Number 50-17029 *

* Consult representative or factory for options and specifications.

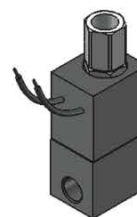
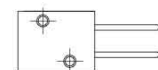
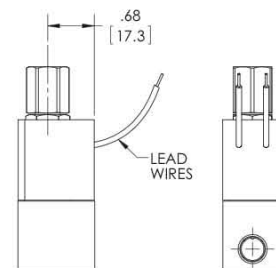




**SERIES 15
MODEL 153
3WNC PIPED EXHAUST
CONDUIT CONNECTION**



**SERIES 15
MODEL 153
3WNC PIPED EXHAUST
DIN STYLE**



**SERIES 15
MODEL 153
3WNC PIPED EXHAUST
MOLDED WITH LEADS**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		ORIFICE SIZE		CV FACTOR		LEAD WIRE	VALVE NUMBER	
AC	DC	N.C.	N.O.	N.C.	N.O.		DIN STYLE	CONDUIT HOUSING
200	200	1/32	1/32	.022	.020	153GG2XGM	153GG2XEM	153GG2XCM
150	150	3/64	3/64	.055	.048	153HH2XGM	153HH2XEM	153HH2XCM
150	150	3/64	1/16	.055	.075	153HJ2XGM	153HJ2XEM	153HJ2XCM
100	100	1/16	1/16	.075	.075	153JJ2XGM	153JJ2XEM	153JJ2XCM
60	60	3/32	1/16	.130	.075	153KJ2XGM	153KJ2XEM	153KJ2XCM
50	50	3/32	3/32	.130	.130	153KK2XGM	153KK2XEM	153KK2XCM

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (153JJ2XGM 120/60) REPAIR PACK (K153JX AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (Q153JJDXGM 120/60)

GENERAL PURPOSE VALVES



Note: This valve also available as an operator. Refer to following page.

Series 15 >> Model 154

3-Way Normally Open Valve

The little black box – magnetic components encased in epoxy for durability and reliability. Interior parts are stainless steel and anodized aluminum. The valves may be used with air, inert gas and liquid media at pressures from vacuum to 150 psi – depending upon orifice size and configuration. For those who require extra heat resistance and media compatibility, FKM and other elastomers are available.

- **Small, lightweight and economical.**
- **Operating pressures from vacuum to 150 psi.**
- **Quality design and construction.**

OPERATING CONDITIONS

Media: Air, water, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, and many oils require special seal materials. (Series 15 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5,000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 4.8 to 277V AC 60 HZ. and 4.4 to 255V AC 50 HZ. – 3.0 to 180V DC

Nominal Power: AC – 7.0 Watts, DC – 10.5 Watts

Coil Construction: Molded Class F. (155°C)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Anodized Aluminum (Std.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: 1/8" NPT (Std.)

Housing: Lead wires, 1/2" NPT Conduit and DIN Style Connector.

Listings: Most valves are UL and CSA listed.*

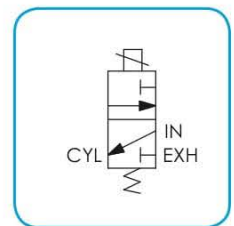
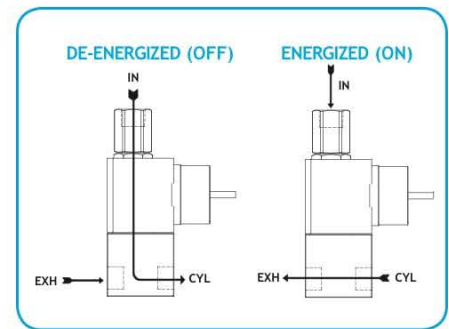
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

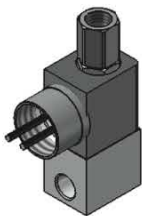
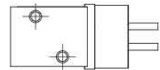
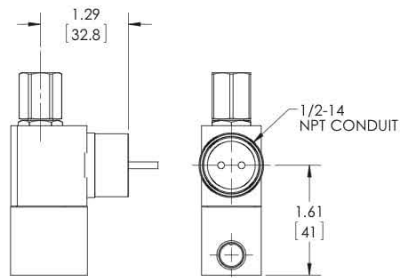
Valve Weight: 0.27 lb to 0.30 lb depending on model and housing style.

Repair Packs: See table on proceeding page.

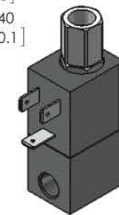
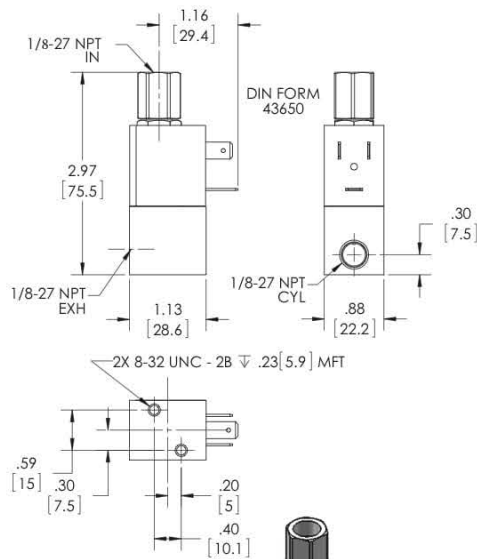
Options: Round Brass or Stainless Steel Body, Stackable Construction, Alternate Elastomers and Magnetic Latching Coil. Female DIN Style Connector Part Number 50-17029 *

* Consult representative or factory for options and specifications.

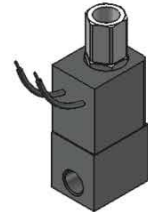
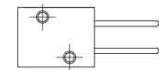
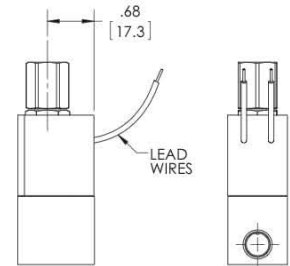




**SERIES 15
MODEL 154
3WNO
CONDUIT CONNECTION**



**SERIES 15
MODEL 154
3WNO
DIN STYLE**



**SERIES 15
MODEL 154
3WNO
MOLDED WITH LEADS**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		ORIFICE SIZE		CV FACTOR		LEAD WIRE	VALVE NUMBER	
AC	DC	N.O.	N.C.	N.O.	N.C.		DIN STYLE	CONDUIT HOUSING
150	150	1/32	1/32	.020	.022	154GG2XGM	154GG2XEM	154GG2XCM
125	125	3/64	3/64	.048	.055	154HH2XGM	154HH2XEM	154HH2XCM
100	100	1/16	1/16	.075	.075	154JJ2XGM	154JJ2XEM	154JJ2XCM
75	75	1/16	3/32	.075	.130	154JK2XGM	154JK2XEM	154JK2XCM
50	50	3/32	3/32	.130	.130	154KK2XGM	154KK2XEM	154KK2XCM

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (154JJ2XGM 120/60) REPAIR PACK (K154JX AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (O154JJDXGM 120/60)

GENERAL PURPOSE VALVES



Note: This valve also available as an operator. Refer to following page.

Series 15 >> Model 155

3-Way Directional Control Valve

The little black box – magnetic components encased in epoxy for durability and reliability. Interior parts are stainless steel and anodized aluminum. The valves may be used with air, inert gas and liquid media at pressures from vacuum to 300 psi AC, 200 psi DC – depending upon orifice size and configuration. For those who require extra heat resistance and media compatibility, FKM and other elastomers are available.

- **Small, lightweight and economical.**
- **Operating pressures from vacuum to 300 psi AC, 200 psi DC.**
- **Quality design and construction.**

OPERATING CONDITIONS

Media: Air, water, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, and many oils require special seal materials. (Series 15 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5,000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 4.8 to 277V AC 60 HZ. and 4.4 to 255V AC 50 HZ. – 3.0 to 180V DC

Nominal Power: AC – 8.5 Watts, DC – 10.5 Watts

Coil Construction: Molded Class F. (155°C)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Anodized Aluminum (Std.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: 1/8" NPT (Std.)

Housing: Lead wires, 1/2" NPT Conduit and DIN Style Connector.

Listings: Most valves are UL and CSA listed.*

Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

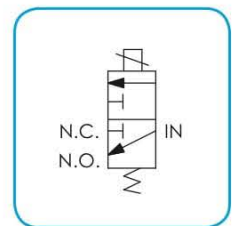
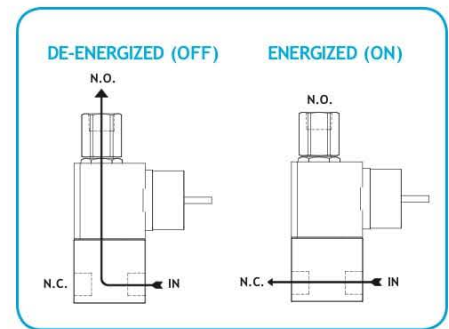
Valve Weight: 0.27 lb to 0.30 lb depending on model and housing style.

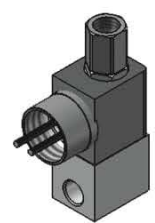
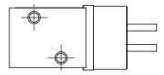
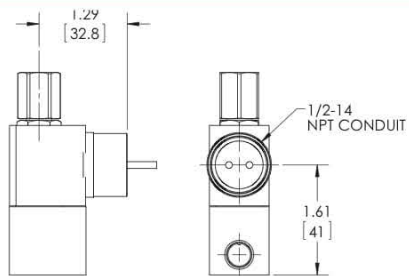
Repair Packs: See table on proceeding page.

Options: Round Brass or Stainless Steel Body, Stackable Construction, Alternate Elastomers and Magnetic Latching Coil.

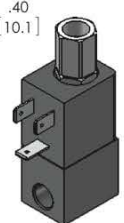
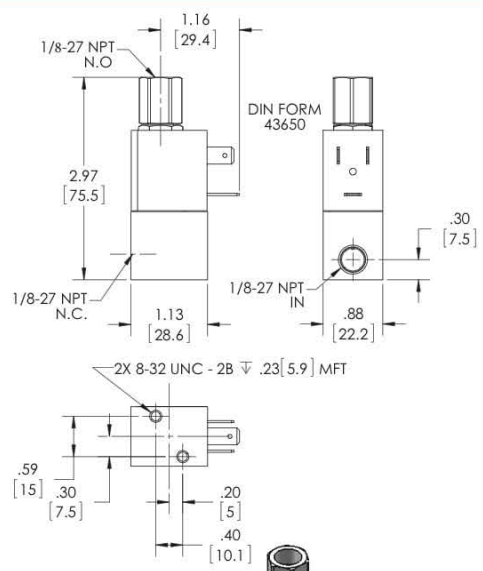
Female DIN Style Connector Part Number 50-17029 *

* Consult representative or factory for options and specifications.

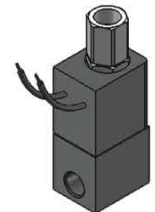
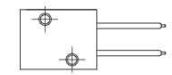
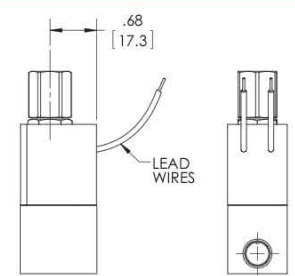




**SERIES 15
MODEL 155
3-WAY DIRECTIONAL CONTROL
CONDUIT CONNECTION**



**SERIES 15
MODEL 155
3-WAY DIRECTIONAL CONTROL
DIN STYLE**



**SERIES 15
MODEL 155
3-WAY DIRECTIONAL CONTROL
MOLDED WITH LEADS**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		ORIFICE SIZE		CV FACTOR		LEAD WIRE	VALVE NUMBER		CONDUIT HOUSING
AC	DC	N.C.	N.O.	N.C.	N.O.		DIN STYLE		
300	200	1/32	1/32	.022	.020	155GG2XGM	155GG2XEM	155GG2XCM	
200	150	3/64	3/64	.055	.048	155HH2XGM	155HH2XEM	155HH2XCM	
100	75	1/16	1/16	.075	.075	155JJ2XGM	155JJ2XEM	155JJ2XCM	
75	40	3/32	1/16	.130	.075	155KJ2XGM	155KJ2XEM	155KJ2XCM	
75	40	3/32	3/32	.130	.130	155KK2XGM	155KK2XEM	155KK2XCM	

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (155HH2XGM 120/60) REPAIR PACK (K155HX AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (Q155HH2DGM 120/60)



Note: This valve also available as an operator. Refer to following page.

Series 15 >> Model 156

3-Way Multi-Purpose Valve

The little black box – magnetic components encased in epoxy for durability and reliability. Interior parts are stainless steel and anodized aluminum. The valves may be used with air, inert gas and liquid media at pressures from vacuum to 125 psi – depending upon orifice size and configuration. For those who require extra heat resistance and media compatibility, FKM and other elastomers are available.

- **Small, lightweight and economical.**
- **Operating pressures from vacuum to 125 psi.**
- **Quality design and construction.**

OPERATING CONDITIONS

Media: Air, water, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, and many oils require special seal materials. (Series 15 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5,000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 4.8 to 277V AC 60 HZ. and 4.4 to 255V AC 50 HZ. – 3.0 to 180V DC

Nominal Power: AC – 8.5 Watts, DC – 10.5 Watts

Coil Construction: Molded Class F. (155°C)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Anodized Aluminum (Std.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: 1/8" NPT (Std.)

Housing: Lead wires, 1/2" NPT Conduit and DIN Style Connector.

Listings: Most valves are UL and CSA listed.*

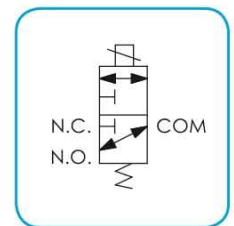
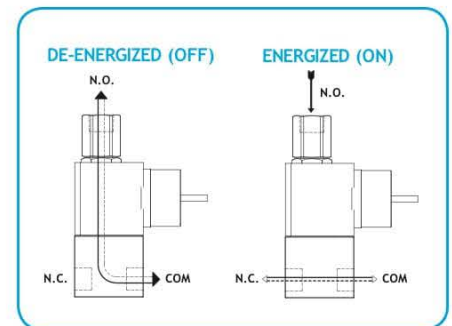
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

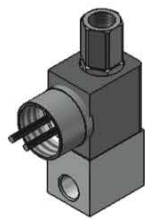
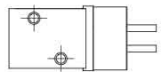
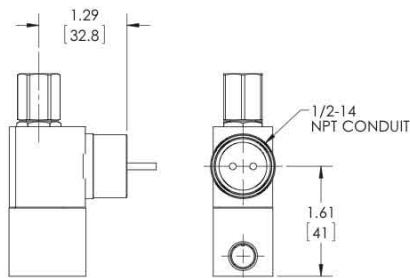
Valve Weight: 0.27 lb to 0.30 lb depending on model and housing style.

Repair Packs: See table on proceeding page.

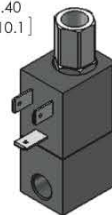
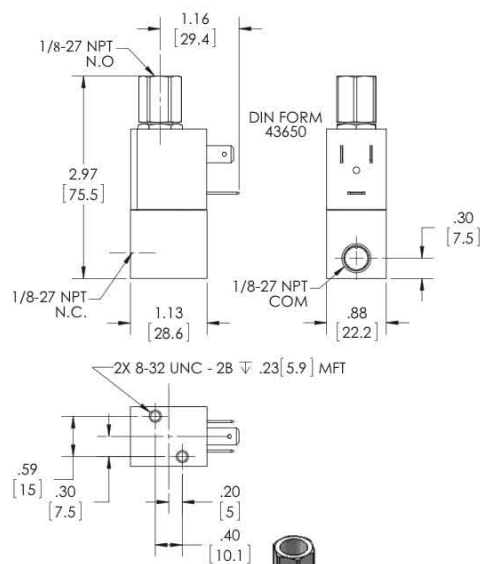
Options: Round Brass or Stainless Steel Body, Stackable Construction, Alternate Elastomers and Magnetic Latching Coil.
Female DIN Style Connector Part Number 50-17029 *

* Consult representative or factory for options and specifications.

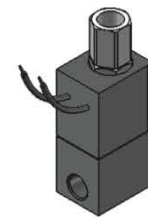
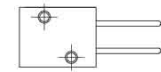
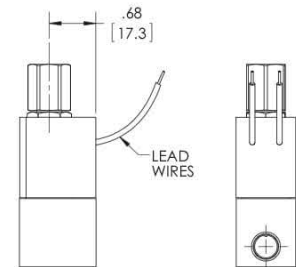




**SERIES 15
MODEL 156
3-WAY MULTI-PURPOSE
CONDUIT CONNECTION**



**SERIES 15
MODEL 156
3-WAY MULTI-PURPOSE
DIN STYLE**



**SERIES 15
MODEL 156
3-WAY MULTI-PURPOSE
MOLDED WITH LEADS**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		ORIFICE SIZE		CV FACTOR		LEAD WIRE	VALVE NUMBER	
AC	DC	N.C.	N.O.	N.C.	N.O.		DIN STYLE	CONDUIT HOUSING
125	125	1/32	1/32	.022	.020	156GG2XGM	156GG2XEM	156GG2XCM
100	100	3/64	3/64	.055	.048	156HH2XGM	156HH2XEM	156HH2XCM
65	50	1/16	1/16	.075	.075	156JJ2XGM	156JJ2XEM	156JJ2XCM
25	25	3/32	3/32	.130	.130	156KJ2XGM	156KJ2XEM	156KJ2XCM

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (156JJ2XEM 120/60) REPAIR PACK (K156JX AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (O156JJ2DEM 120/60)

GENERAL PURPOSE VALVES



Series 50 >> Model 51

2-Way Normally Open Valve

Our original mini – engineered for space economy without sacrificing performance. Typical applications include medical, analytical instrumentation. Air, water, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, and many oils require special seal materials.

- Tough with options to use in hazardous location environments or low watt applications.
- High quality engineering.

Note: This valve also available as an operator. Refer to following page.

OPERATING CONDITIONS

Media: Air, water, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, and many oils require special seal materials. (Series 50 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 6.0 to 575V AC 60 HZ. and 5.4 to 515V AC 50 HZ. – 3.0 to 300V DC

Nominal Power: AC – 6.0 Watts, DC – 7.0 Watts

Coil Construction: Molded and potted Class F. (Class H optional)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.), Brass (Opt.) or Aluminum (Opt.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: Standard 1/8" NPT (other ports available).*

Housing: Grommet and 1/2" NPT conduit - many options available.*

Listings: Most valves are UL and CSA listed.*

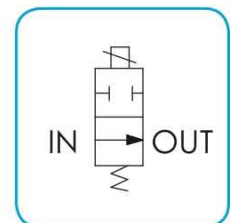
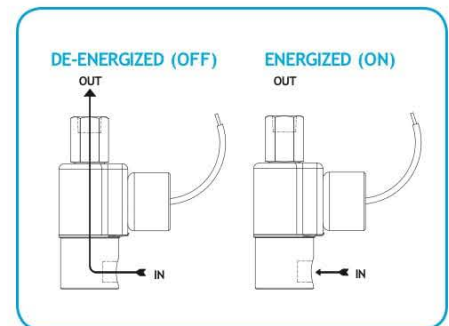
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

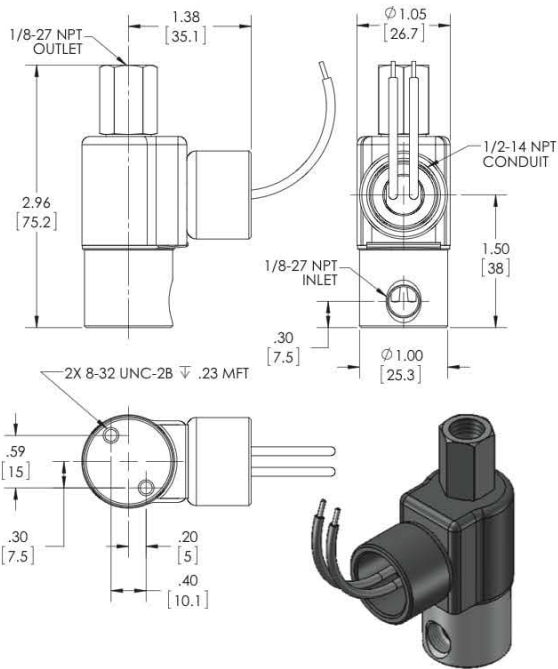
Valve Weight: Grommet Valve: 0.38 lb Conduit Valve: 0.44 lb

Repair Packs: See table on proceeding page.

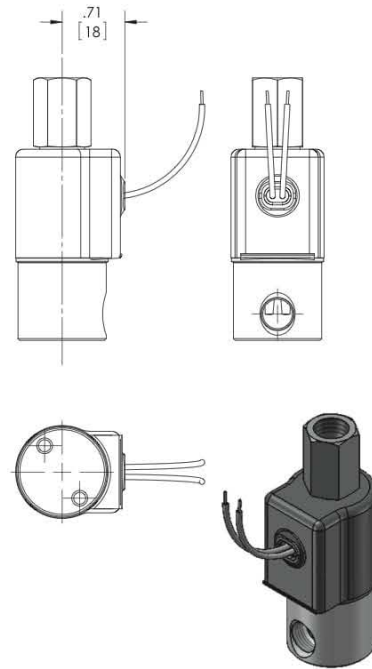
Options: Alternate Port Locations, Metering, Alternate Elastomers, Low Wattage, Spade Terminal Coil and Explosion Proof

* Consult representative or factory for options and specifications.





**SERIES 50
MODEL 51
2WNO
CONDUIT CONNECTION**



**SERIES 50
MODEL 51
2WNO
GROMMET HOUSING WITH LEADS**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		ORIFICE SIZE N.O.	CV FACTOR N.O.	VALVE NUMBER	
AC	DC			GROMMET HOUSING 1/8 NPT PORTS	CONDUIT HOUSING 1/8 NPT PORTS
400	200	1/32	.020	51G8XGM	51G8XCM
200	100	3/64	.048	51H8XGM	51H8XCM
125	60	1/16	.075	51J8XGM	51J8XCM
40	40	3/32	.150	51K8XGM	51K8XCM

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (51J8XGM 120/60) REPAIR PACK (K51JDX AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (O51J8DGM 120/60)

GENERAL PURPOSE VALVES



Series 50 >> Model 52

2-Way Normally Closed Valve

Our original mini – engineered for space economy without sacrificing performance. Typical applications include medical, analytical instrumentation. Air, water, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, and many oils require special seal materials.

- **Tough with options to use in hazardous location environments or low watt applications.**
- **High quality engineering.**

Note: This valve also available as an operator. Refer to following page.

OPERATING CONDITIONS

Media: Air, water, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, and many oils require special seal materials. (Series 50 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 6.0 to 575V AC 60 HZ. and 5.4 to 515V AC 50 HZ. – 3.0 to 300V DC

Nominal Power: AC – 6.0 Watts, DC – 7.0 Watts

Coil Construction: Molded and potted Class F. (Class H optional)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.), Brass (Opt.) or Aluminum (Opt.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: Standard 1/8" NPT (other ports available).*

Housing: Grommet and 1/2" NPT conduit - many options available.*

Listings: Most valves are UL and CSA listed.*

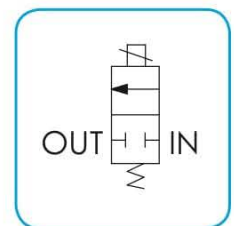
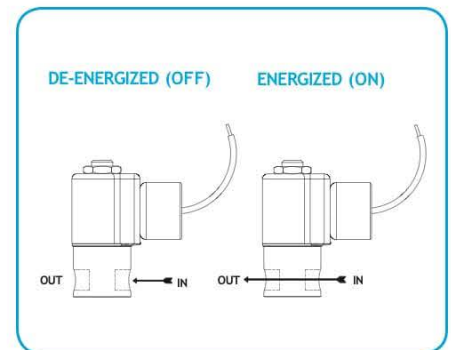
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

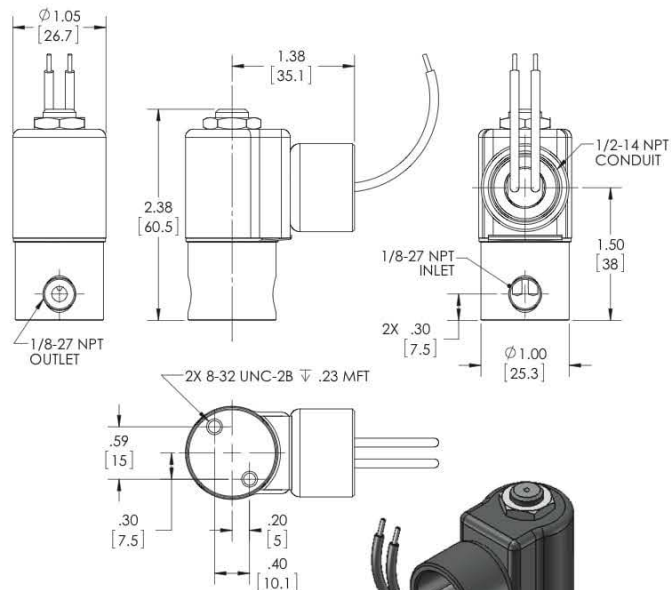
Valve Weight: Grommet Valve: 0.38 lb Conduit Valve: 0.44 lb

Repair Packs: See table on proceeding page.

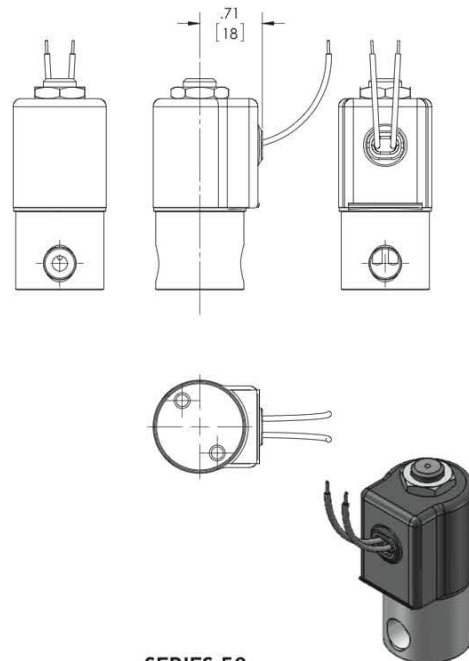
Options: Alternate Port Locations, Metering, Alternate Elastomers, Low Wattage, Spade Terminal Coil and Explosion Proof

* Consult representative or factory for options and specifications.





**SERIES 50
MODEL 52
2WNC
CONDUIT CONNECTION**



**SERIES 50
MODEL 52
2WNC
GROMMET HOUSING WITH LEADS**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		ORIFICE SIZE	CV FACTOR	VALVE NUMBER	
AC	DC			GROMMET HOUSING 1/8 NPT PORTS	CONDUIT HOUSING 1/8 NPT PORTS
500 (1000)*	250 (1000)*	1/32	.022	52G8DGM	52G8DCM
400 (700)*	150 (450)	3/64	.055	52H8DGM	52H8DCM
200 (470)	100 (325)	1/16	.075	52J8DGM	52J8DCM
150 (270)	75 (210)	5/64	.134	52V8DGM	52V8DCM
100 (260)	45 (175)	3/32	.156	52K8DGM	52K8DCM
75 (135)	25 (100)	1/8	.230	52N8DGM	52N8DCM
40 (50)	10 (20)	5/32	.292	52O8DGM	52O8DCM

* FKM seals not recommended for pressure ratings above 500 PSI.

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (52J8DGM 120/60) REPAIR PACK (K52JDD AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (O52J8DGM 120/60)

GENERAL PURPOSE VALVES



Series 50 >> Model 53

3-Way Normally Closed Valve – Exhaust to Atmosphere

Our original mini – engineered for space economy without sacrificing performance. Typical applications include medical, analytical instrumentation. Air, water, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, and many oils require special seal materials.

- Tough with options to use in hazardous location environments or low watt applications.
- High quality engineering.

Note: This valve also available as an operator. Refer to following page.

OPERATING CONDITIONS

Media: Air, water, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, and many oils require special seal materials. (Series 50 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 6.0 to 575V AC 60 HZ. and 5.4 to 515V AC 50 HZ. – 3.0 to 300V DC

Nominal Power: AC – 6.0 Watts, DC – 7.0 Watts

Coil Construction: Molded and potted Class F. (Class H optional)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.), Brass (Opt.) or Aluminum (Opt.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: Standard 1/8" NPT (other ports available).*

Housing: Grommet and 1/2" NPT conduit - many options available.*

Listings: Most valves are UL and CSA listed.*

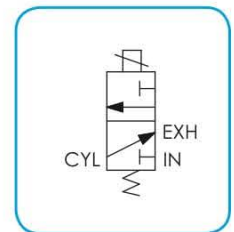
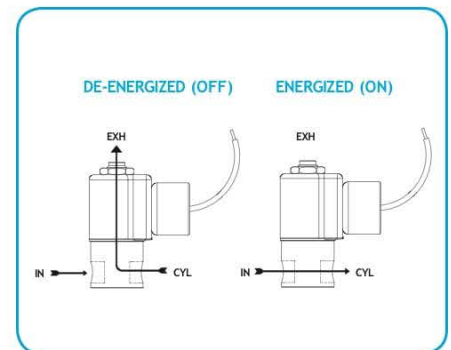
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

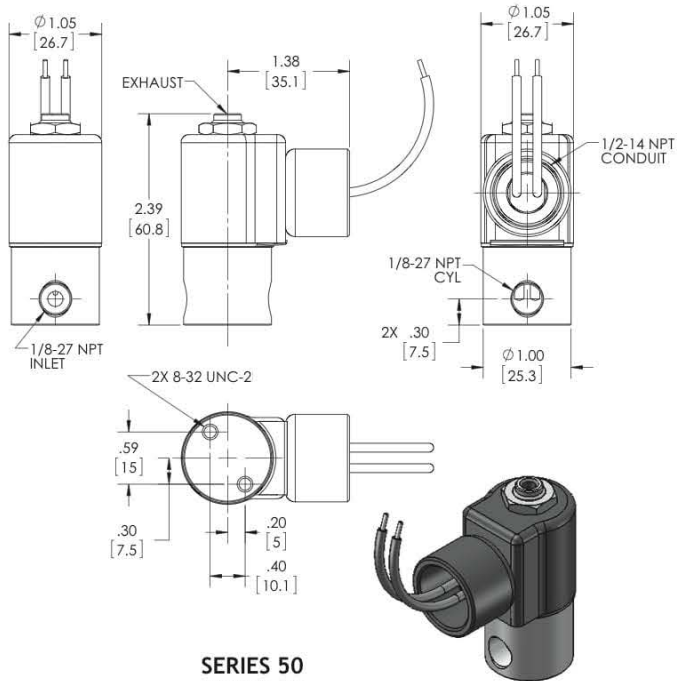
Valve Weight: Grommet Valve: 0.38 lb Conduit Valve: 0.44 lb

Repair Packs: See table on proceeding page.

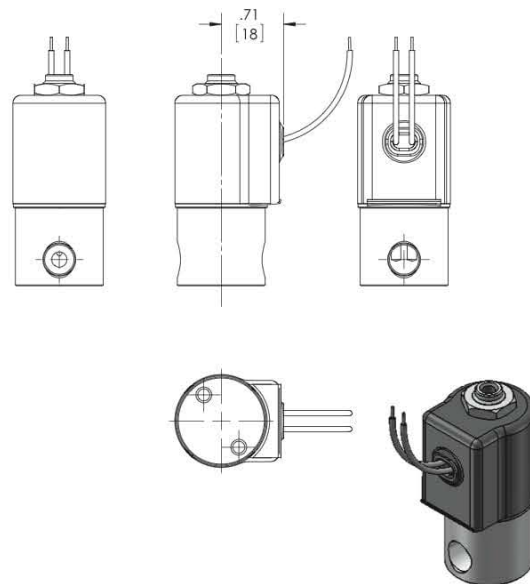
Options: Alternate Port Locations, Metering, Alternate Elastomers, Low Wattage, Spade Terminal Coil and Explosion Proof

* Consult representative or factory for options and specifications.





**SERIES 50
MODEL 53
3WNC EXHAUST TO ATMOSPHERE
CONDUIT CONNECTION**



**SERIES 50
MODEL 53
3WNC EXHAUST TO ATMOSPHERE
GROMMET HOUSING WITH LEADS**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		ORIFICE SIZE		CV FACTOR		VALVE NUMBER	
AC	DC	N.C.	N.O.	N.C.	N.O.	GROMMET HOUSING 1/8 NPT PORTS	CONDUIT HOUSING 1/8 NPT PORTS
200	200	1/32	1/32	.022	.020	53GG8DGM	53GG8DCM
150	150	3/64	3/64	.055	.048	53HH8DGM	53HH8DCM
150	150	3/64	1/16	.055	.075	53HJ8DGM	53HJ8DCM
100	100	1/16	1/16	.075	.075	53JJ8DGM	53JJ8DCM
60	60	3/32	1/16	.156	.075	53KJ8DGM	53KJ8DCM
50	50	3/32	3/32	.156	.150	53KK8DGM	53KK8DCM
30	30	1/8	1/16	.230	.075	53NJ8DGM	53NJ8DCM
30	30	1/8	3/32	.230	.150	53NK8DGM	53NK8DCM

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (53JJ8DGM 120/60) REPAIR PACK (K53JJD AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (O53JJ8DGM 120/60)

GENERAL PURPOSE VALVES



Note: This valve also available as an operator. Refer to following page.

Series 50 >> Model 53

3-Way Normally Closed Valve – Piped Exhaust

Our original mini – engineered for space economy without sacrificing performance. Typical applications include medical, analytical instrumentation. Air, water, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, and many oils require special seal materials.

- **Tough with options to use in hazardous location environments or low watt applications.**
- **High quality engineering.**

OPERATING CONDITIONS

Media: Air, water, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, and many oils require special seal materials. (Series 50 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 6.0 to 575V AC 60 HZ. and 5.4 to 515V AC 50 HZ. – 3.0 to 300V DC

Nominal Power: AC – 6.0 Watts, DC – 7.0 Watts

Coil Construction: Molded and potted Class F. (Class H optional)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.), Brass (Opt.) or Aluminum (Opt.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: Standard 1/8" NPT (other ports available).*

Housing: Grommet and 1/2" NPT conduit - many options available.*

Listings: Most valves are UL and CSA listed.*

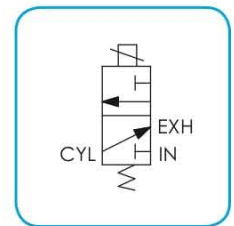
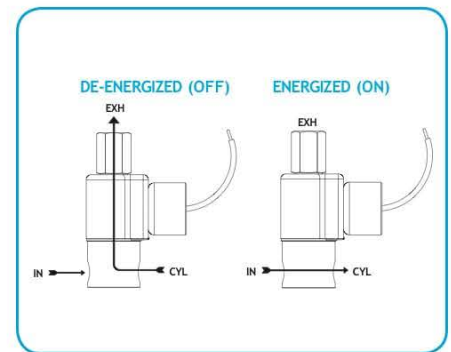
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

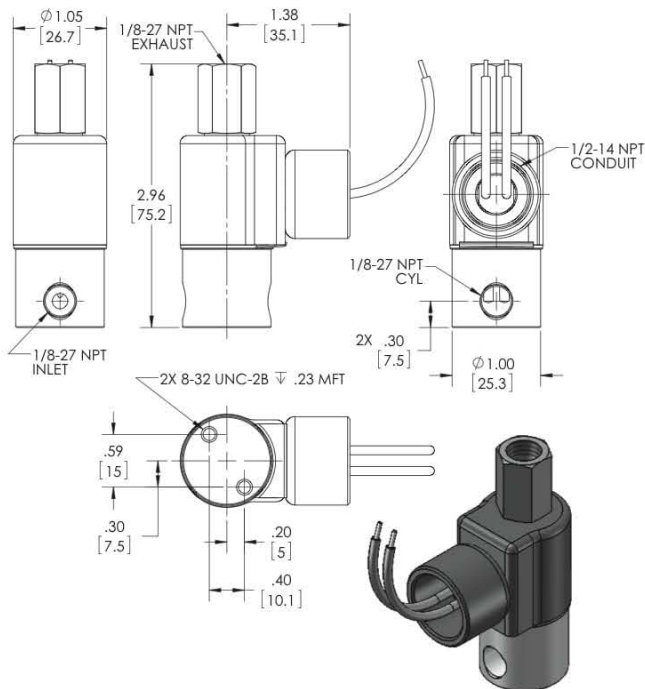
Valve Weight: Grommet Valve: 0.38 lb Conduit Valve: 0.44 lb

Repair Packs: See table on proceeding page.

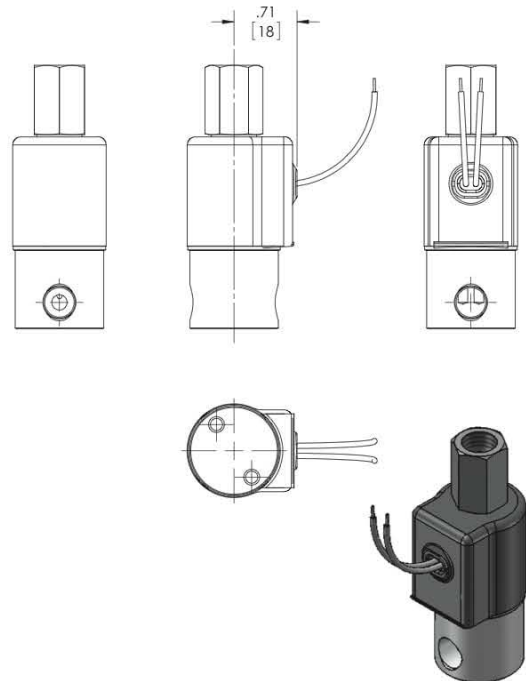
Options: Alternate Port Locations, Metering, Alternate Elastomers, Low Wattage, Spade Terminal Coil and Explosion Proof

* Consult representative or factory for options and specifications.





**SERIES 50
MODEL 53
3WNC PIPED EXHAUST
CONDUIT CONNECTION**



**SERIES 50
MODEL 53
3WNC PIPED EXHAUST
GROMMET HOUSING WITH LEADS**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		ORIFICE SIZE		CV FACTOR		VALVE NUMBER	
AC	DC	N.C.	N.O.	N.C.	N.O.	GROMMET HOUSING 1/8 NPT PORTS	CONDUIT HOUSING 1/8 NPT PORTS
200	200	1/32	1/32	.022	.020	53GG8XGM	53GG8XCM
150	150	3/64	3/64	.055	.048	53HH8XGM	53HH8XCM
150	150	3/64	1/16	.055	.075	53HJ8XGM	53HJ8XCM
100	100	1/16	1/16	.075	.075	53JJ8XGM	53JJ8XCM
60	60	3/32	1/16	.156	.075	53KJ8XGM	53KJ8XCM
50	50	3/32	3/32	.156	.150	53KK8XGM	53KK8XCM
30	30	1/8	1/16	.230	.075	53NJ8XGM	53NJ8XCM
30	30	1/8	3/32	.230	.150	53NK8XGM	53NK8XCM

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (53JJ8XGM 120/60) REPAIR PACK (K53JJX AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (Q53JJ8DGM 120/60)

GENERAL PURPOSE VALVES



Series 50 >> Model 54

3-Way Normally Open Valve

Our original mini – engineered for space economy without sacrificing performance. Typical applications include medical, analytical instrumentation. Air, water, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, and many oils require special seal materials.

- **Tough with options to use in hazardous location environments or low watt applications.**
- **High quality engineering.**

Note: This valve also available as an operator. Refer to following page.

OPERATING CONDITIONS

Media: Air, water, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, and many oils require special seal materials. (Series 50 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 6.0 to 575V AC 60 HZ. and 5.4 to 515V AC 50 HZ. – 3.0 to 300V DC

Nominal Power: AC – 8.5 Watts, DC – 7.0 Watts

Coil Construction: Molded and potted Class F. (Class H optional)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.), Brass (Opt.) or Aluminum (Opt.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: Standard 1/8" NPT (other ports available).*

Housing: Grommet and 1/2" NPT conduit - many options available.*

Listings: Most valves are UL and CSA listed.*

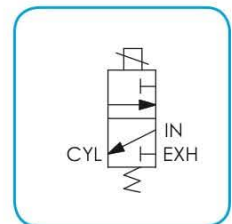
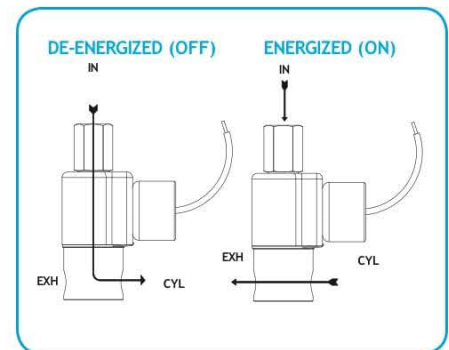
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

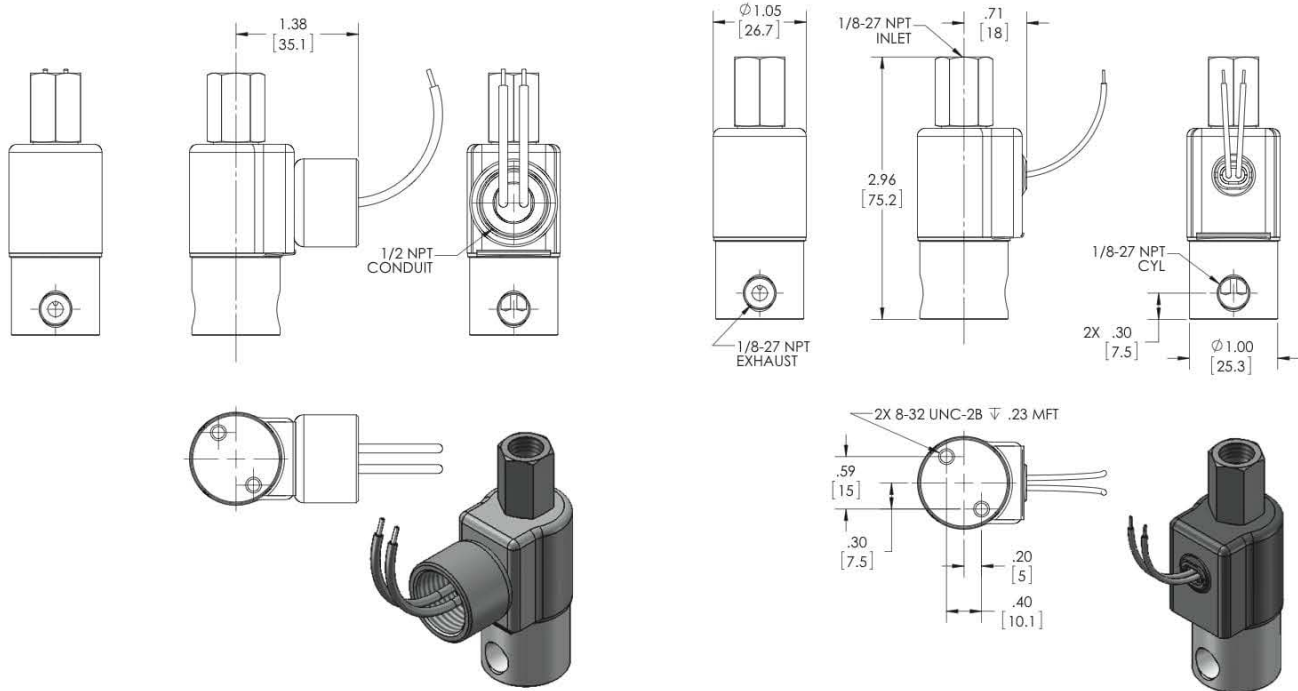
Valve Weight: Grommet Valve: 0.38 lb Conduit Valve: 0.44 lb

Repair Packs: See table on proceeding page.

Options: Alternate Port Locations, Metering, Alternate Elastomers, Low Wattage, Spade Terminal Coil and Explosion Proof

* Consult representative or factory for options and specifications.





**SERIES 50
MODEL 54
3WNO
CONDUIT CONNECTION**

**SERIES 50
MODEL 54
3WNO
GROMMET HOUSING WITH LEADS**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		ORIFICE SIZE		CV FACTOR		VALVE NUMBER	
AC	DC	N.O.	N.C.	N.O.	N.C.	GROMMET HOUSING 1/8 NPT PORTS	CONDUIT HOUSING 1/8 NPT PORTS
150	150	1/32	1/32	.020	.022	54GG8XGM	54GG8XCM
125	125	3/64	3/64	.048	.055	54HH8XGM	54HH8XCM
100	75	1/16	1/16	.075	.075	54JJ8XGM	54JJ8XCM
75	45	1/16	3/32	.075	.156	54KJ8XGM	54KJ8XCM
50	50	3/32	3/32	.150	.156	54KK8XGM	54KK8XCM
40	25	3/32	1/8	.150	.230	54NK8XGM	54NK8XCM

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (54HH8XGM 120/60) REPAIR PACK (K54HHX AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (Q54HH8XGM 120/60)

GENERAL PURPOSE VALVES



Series 50 >> Model 55

3-Way Directional Control Valve

Our original mini – engineered for space economy without sacrificing performance. Typical applications include medical, analytical instrumentation. Air, water, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, and many oils require special seal materials.

- **Tough with options to use in hazardous location environments or low watt applications.**
- **High quality engineering.**

Note: This valve also available as an operator. Refer to following page.

OPERATING CONDITIONS

Media: Air, water, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, and many oils require special seal materials. (Series 50 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 6.0 to 575V AC 60 HZ. and 5.4 to 515V AC 50 HZ. – 3.0 to 300V DC

Nominal Power: AC – 6.0 Watts, DC – 7.0 Watts

Coil Construction: Molded and potted Class F. (Class H optional)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.), Brass (Opt.) or Aluminum (Opt.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: Standard 1/8" NPT (other ports available).*

Housing: Grommet and 1/2" NPT conduit - many options available.*

Listings: Most valves are UL and CSA listed.*

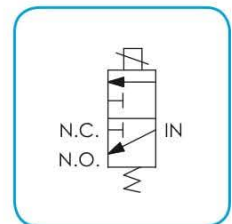
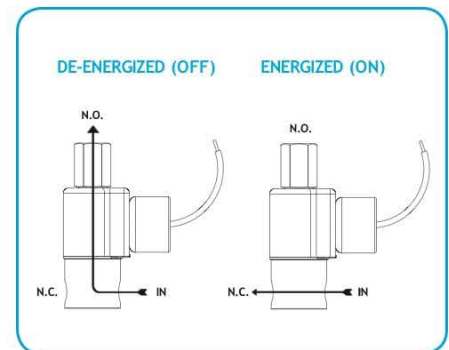
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

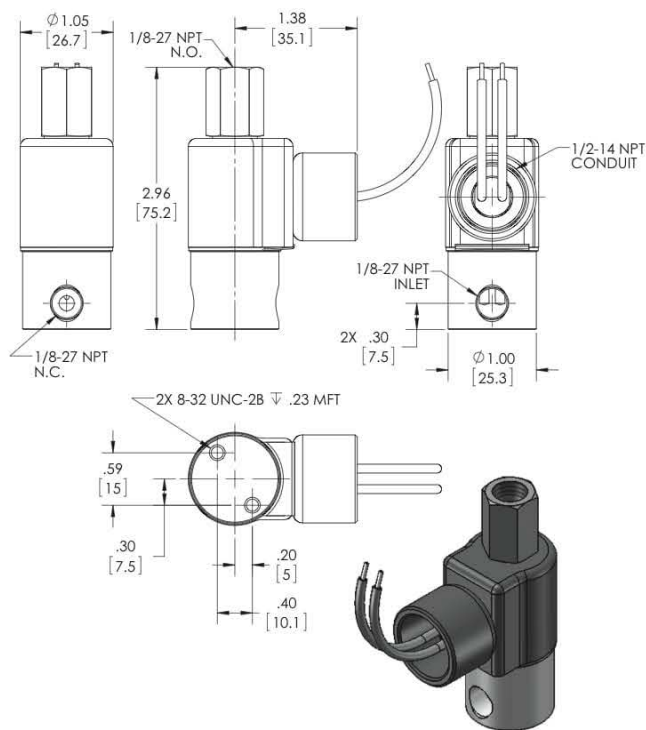
Valve Weight: Grommet Valve: 0.38 lb Conduit Valve: 0.44 lb

Repair Packs: See table on proceeding page.

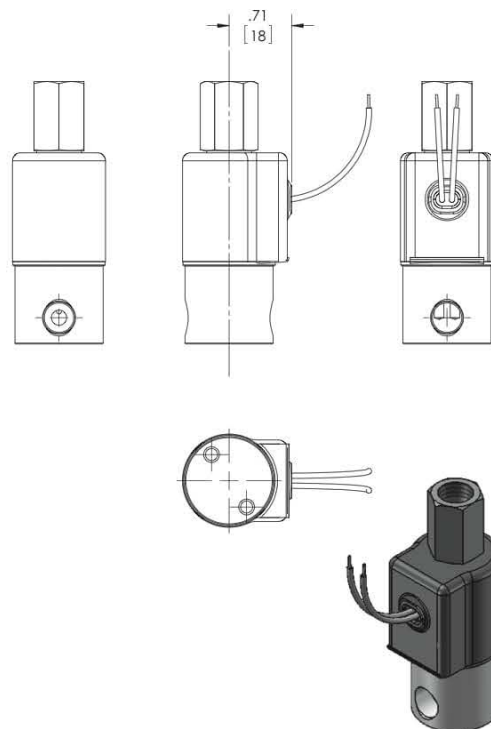
Options: Alternate Port Locations, Metering, Alternate Elastomers, Low Wattage, Spade Terminal Coil and Explosion Proof

* Consult representative or factory for options and specifications.





**SERIES 50
MODEL 55
3-WAY DIRECTIONAL CONTROL
CONDUIT CONNECTION**



**SERIES 50
MODEL 55
3-WAY DIRECTIONAL CONTROL
GROMMET HOUSING WITH LEADS**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		ORIFICE SIZE		CV FACTOR		VALVE NUMBER	
AC	DC	N.C.	N.O.	N.C.	N.O.	GROMMET HOUSING 1/8 NPT PORTS	CONDUIT HOUSING 1/8 NPT PORTS
300	200	1/32	1/32	.022	.020	55GG8XGM	55GG8XCM
200	100	3/64	3/64	.055	.048	55HH8XGM	55HH8XCM
100	50	1/16	1/16	.075	.075	55JJ8XGM	55JJ8XCM
75	25	3/32	1/16	.156	.075	55KJ8XGM	55KJ8XCM
75	40	3/32	3/32	.156	.150	55KK8XGM	55KK8XCM
45	25	1/8	3/32	.230	.150	55NK8XGM	55NK8XCM

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (55JJ8XGM 120/60) REPAIR PACK (K55JJX AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (Q55JJ8DGM 120/60)

GENERAL PURPOSE VALVES



Series 50 >> Model 56

3-Way Multi-Purpose Valve

Our original mini – engineered for space economy without sacrificing performance. Typical applications include medical, analytical instrumentation. Air, water, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, and many oils require special seal materials.

- Tough with options to use in hazardous location environments or low watt applications.
- High quality engineering.

Note: This valve also available as an operator. Refer to following page.

OPERATING CONDITIONS

Media: Air, water, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, and many oils require special seal materials. (Series 50 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 6.0 to 575V AC 60 HZ. and 5.4 to 515V AC 50 HZ. – 3.0 to 300V DC

Nominal Power: AC – 6.0 Watts, DC – 7.0 Watts

Coil Construction: Molded and potted Class F. (Class H optional)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.), Brass (Opt.) or Aluminum (Opt.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: Standard 1/8" NPT (other ports available).*

Housing: Grommet and 1/2" NPT conduit - many options available.*

Listings: Most valves are UL and CSA listed.*

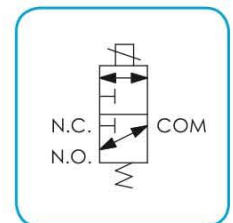
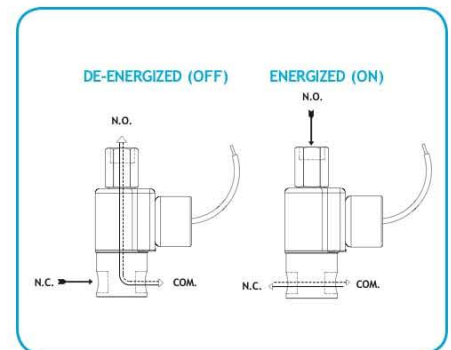
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

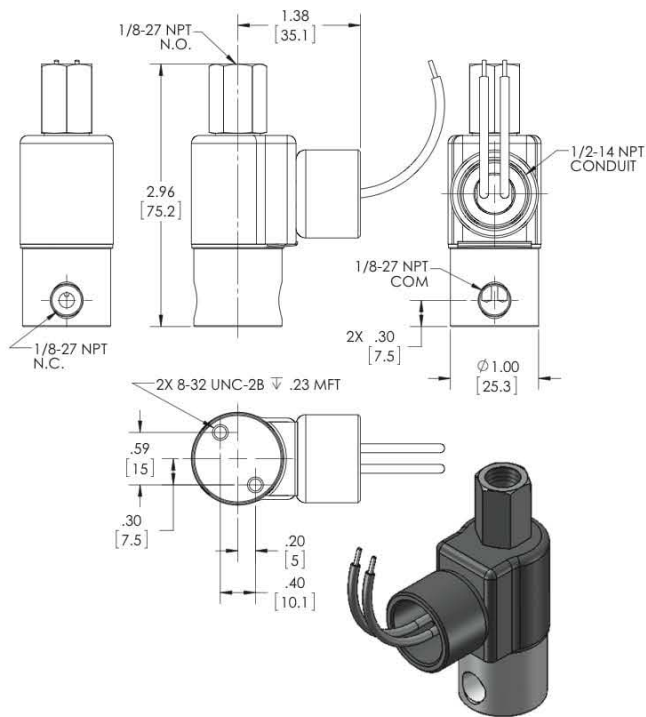
Valve Weight: Grommet Valve: 0.38 lb Conduit Valve: 0.44 lb

Repair Packs: See table on proceeding page.

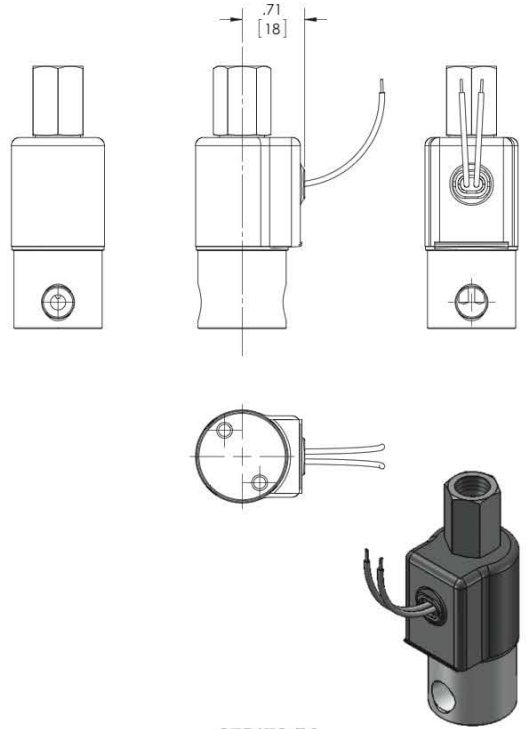
Options: Alternate Port Locations, Metering, Alternate Elastomers, Low Wattage, Spade Terminal Coil and Explosion Proof

* Consult representative or factory for options and specifications.





**SERIES 50
MODEL 56
3-WAY MULTI-PURPOSE
CONDUIT CONNECTION**



**SERIES 50
MODEL 56
3-WAY MULTI-PURPOSE
GROMMET HOUSING WITH LEADS**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		ORIFICE SIZE		CV FACTOR		VALVE NUMBER	
AC	DC	N.C.	N.O.	N.C.	N.O.	GROMMET HOUSING 1/8 NPT PORTS	CONDUIT HOUSING 1/8 NPT PORTS
125	125	1/32	1/32	.022	.020	56GG8XGM	56GG8XCM
100	100	3/64	3/64	.055	.048	56HH8XGM	56HH8XCM
65	50	1/16	1/16	.075	.075	56JJ8XGM	56JJ8XCM
25	25	3/32	3/32	.156	.150	56KK8XGM	56KK8XCM

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (56JJ8XGM 120/60) REPAIR PACK (K56JDX AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (O56JJ8DGM 120/60)

GENERAL PURPOSE VALVES



Series 30 >> Model 31

2-Way Normally Open Valve

Complete range of valves particularly suitable when cost and size are major factors. The bodies are constructed of brass (stainless steel is optional). Air, water, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, and many oils require special seal materials.

- Brass body with stainless steel internal construction.
- A smaller, cost effective alternative to any industry standard.

Note: This valve also available as an operator. Refer to following page.

OPERATING CONDITIONS

Media: Air, water, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, and many oils require special seal materials. (Series 30 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 6.0 to 650V AC 60 HZ. and 5.2 to 560V AC 50 HZ. – 2.0 to 240V DC

Nominal Power: AC – 8.0 Watts, DC – 8.0 Watts

Coil Construction: Molded (Std.), Non-molded Class A and potted Class F. (Class H optional)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Brass (Std.) or Stainless Steel (Opt.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: Standard 1/8" NPT (other ports available).*

Housing: Grommet and 1/2" NPT conduit - many options available.*

Listings: Most valves are UL and CSA listed.*

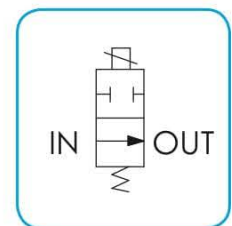
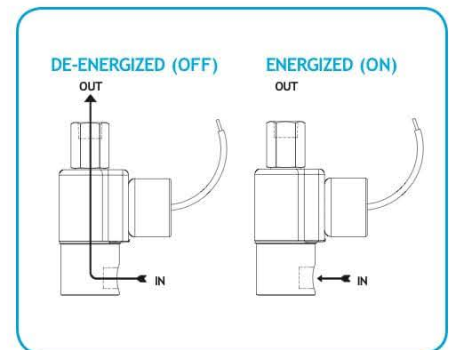
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

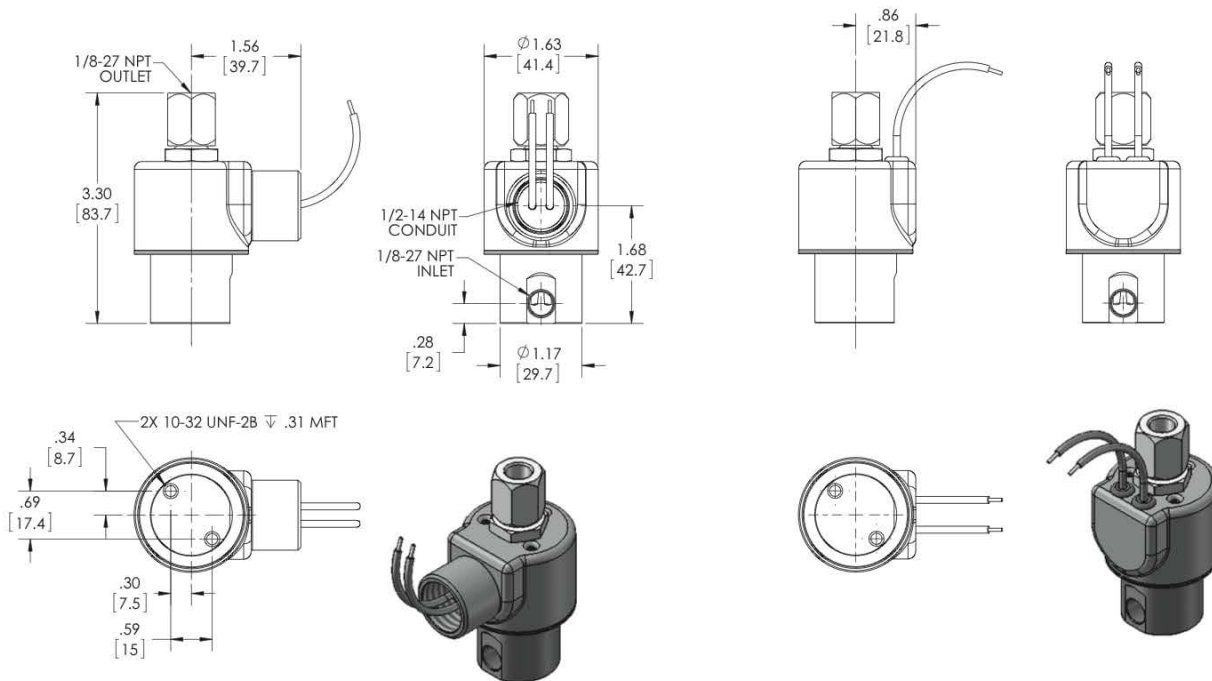
Valve Weight: Grommet Valve: 0.75 lb Conduit Valve: 0.81 lb

Repair Packs: See table on proceeding page.

Options: Alternate Port Locations, Metering, Manual Override, Alternate Elastomers, Spade Terminal Coil

* Consult representative or factory for options and specifications.





**SERIES 30
MODEL 31
2WNO
CONDUIT CONNECTION**

**SERIES 30
MODEL 31
2WNO
GROMMET HOUSING WITH LEADS**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		ORIFICE SIZE N.O.	CV FACTOR N.O.	VALVE NUMBER	
AC	DC			GROMMET HOUSING 1/8 NPT PORTS	CONDUIT HOUSING 1/8 NPT PORTS
300	300	1/32	.024	31G5XGM	31G5XCM
175	175	3/64	.052	31H5XGM	31H5XCM
125	125	1/16	.095	31J5XGM	31J5XCM
75	75	3/32	.160	31K5XGM	31K5XCM

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (31K5XGM 120/60) REPAIR PACK (K31KDX AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (O31K5DGM 120/60)

GENERAL PURPOSE VALVES



Series 30 >> Model 32

2-Way Normally Closed Valve

Complete range of valves particularly suitable when cost and size are major factors. The bodies are constructed of brass (stainless steel is optional). Air, water, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, and many oils require special seal materials.

- Brass body with stainless steel internal construction.
- A smaller, cost effective alternative to any industry standard.

Note: This valve also available as an operator. Refer to following page.

OPERATING CONDITIONS

Media: Air, water, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, and many oils require special seal materials. (Series 30 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 6.0 to 650V AC 60 HZ. and 5.2 to 560V AC 50 HZ. – 2.0 to 240V DC

Nominal Power: AC – 7.0 Watts, DC – 8.0 Watts

Coil Construction: Molded (Std.), Non-molded Class A and potted Class F. (Class H optional)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Brass (Std.) or Stainless Steel (Opt.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: Standard 1/8" NPT (other ports available).*

Housing: Grommet and 1/2" NPT conduit - many options available.*

Listings: Most valves are UL and CSA listed.*

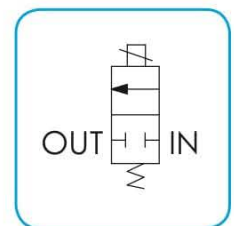
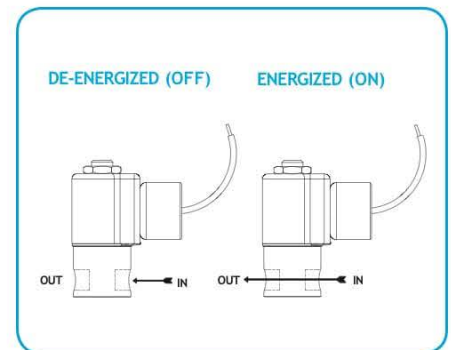
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

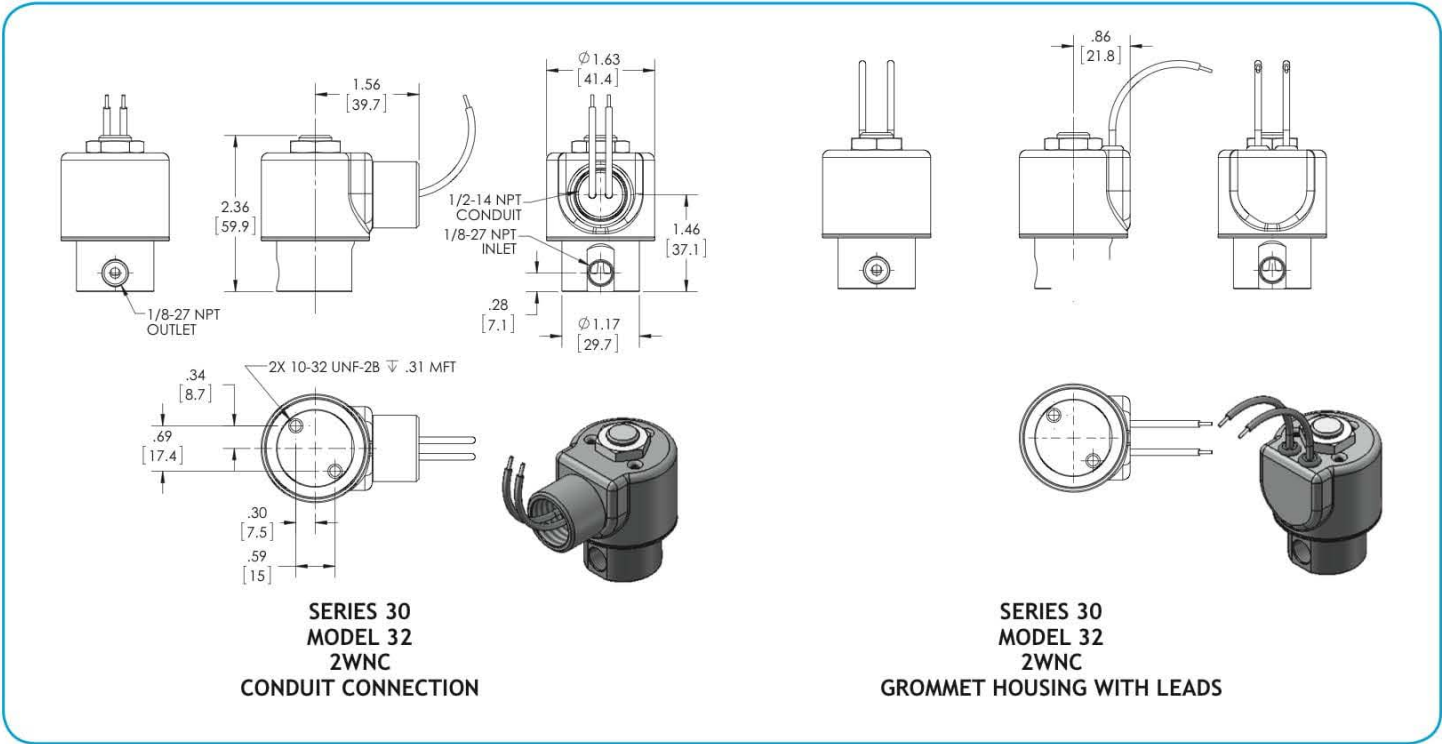
Valve Weight: Grommet Valve: 0.75 lb Conduit Valve: 0.81 lb

Repair Packs: See table on proceeding page.

Options: Alternate Port Locations, Metering, Manual Override, Alternate Elastomers, Spade Terminal Coil

* Consult representative or factory for options and specifications.





VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.+		ORIFICE SIZE N.C.	CV FACTOR N.C.	VALVE NUMBER			
AC	DC			GROMMET HOUSING		CONDUIT HOUSING	
				1/8 NPT PORTS BRASS	1/8 NPT PORTS STAINLESS STEEL	1/8 NPT PORTS BRASS	1/8 NPT PORTS STAINLESS STEEL
375 (650)*	375 (650)*	1/32	.024	32G5DGM	—	32G5DCM	—
280 (650)*	280 (650)*	3/64	.055	32H5DGM	32H8DGM	32H5DCM	32H8DCM
275	250	1/16	.105	32J5DGM	32J8DGM	32J5DCM	32J8DCM
180	100	3/32	.195	32K5DGM	32K8DGM	32K5DCM	32K8DCM
130	80	7/64	.220	32L5DGM	32L8DGM	32L5DCM	32L8DCM
90	50	1/8	.275	32N5DGM	32N8DGM	32N5DCM	32N8DCM
60	25	5/32	.360	32O5DGM	32O8DGM	32O5DCM	32O8DCM
40	15	3/16	.400	32P5DGM	32P8DGM	32P5DCM	32P8DCM

* FKM seals not recommended for pressure above 500 psi.
 + Ratings in brackets are optional extended ratings; consult factory

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (32N5DGM 120/60) REPAIR PACK (K32NDD AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (O32N5DGM 120/60)

GENERAL PURPOSE VALVES



Series 30 >> Model 33

3-Way Normally Closed Valve – Exhaust to Atmosphere

Complete range of valves particularly suitable when cost and size are major factors. The bodies are constructed of brass (stainless steel is optional). Air, water, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, and many oils require special seal materials.

- Brass body with stainless steel internal construction.
- A smaller, cost effective alternative to any industry standard.

Note: This valve also available as an operator. Refer to following page.

OPERATING CONDITIONS

Media: Air, water, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, and many oils require special seal materials. (Series 30 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 6.0 to 650V AC 60 HZ. and 5.2 to 560V AC 50 HZ. – 2.0 to 240V DC

Nominal Power: AC – 8.0 Watts, DC – 8.0 Watts

Coil Construction: Molded (Std.), Non-molded Class A and potted Class F. (Class H optional)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Brass (Std.) or Stainless Steel (Opt.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: Standard 1/8" NPT (other ports available).*

Housing: Grommet and 1/2" NPT conduit - many options available.*

Listings: Most valves are UL and CSA listed.*

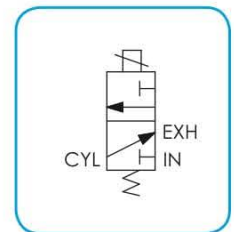
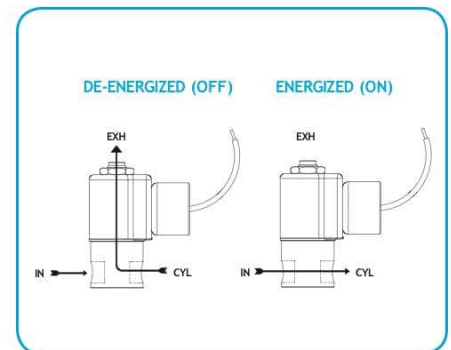
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

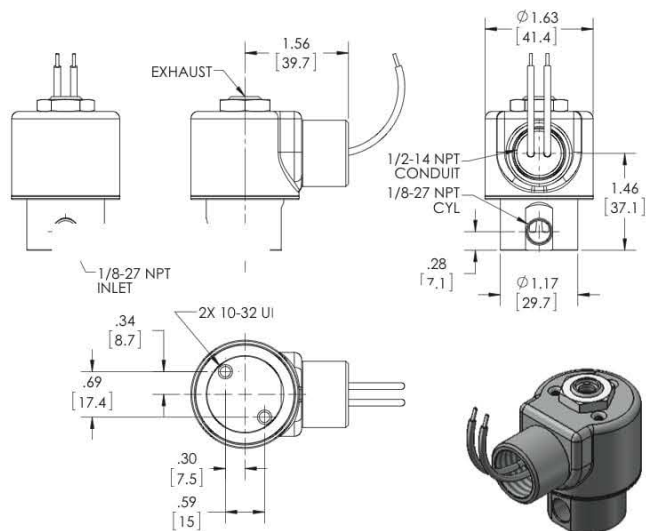
Valve Weight: Grommet Valve: 0.75 lb Conduit Valve: 0.81 lb

Repair Packs: See table on proceeding page.

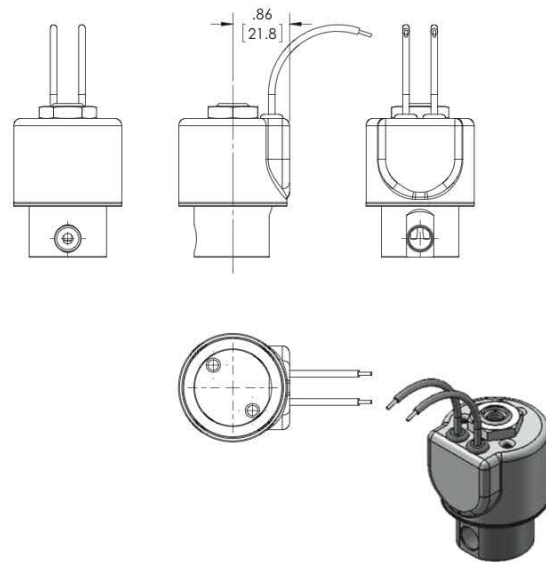
Options: Alternate Port Locations, Metering, Manual Override, Alternate Elastomers, Spade Terminal Coil

* Consult representative or factory for options and specifications.





**SERIES 30
MODEL 33
3WNC EXHAUST TO ATMOSPHERE
CONDUIT CONNECTION**



**SERIES 30
MODEL 33
3WNC EXHAUST TO ATMOSPHERE
GROMMET HOUSING WITH LEADS**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		ORIFICE SIZE		CV FACTOR		VALVE NUMBER	
AC	DC	N.C.	N.O.	N.C.	N.O.	GROMMET HOUSING 1/8 NPT PORTS	CONDUIT HOUSING 1/8 NPT PORTS
300	300	1/32	1/32	.024	.024	33GG5DGM	33GG5DCM
175	175	3/64	1/16	.052	.095	33HJ5DGM	33HJ5DCM
125	125	1/16	1/16	.095	.095	33JJ5DGM	33JJ5DCM
75	75	3/32	3/32	.160	.160	33KK5DGM	33KK5DCM
50	50	1/8	3/32	.275	.160	33NK5DGM	33NK5DCM

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (33JJ5DCM 120/60) REPAIR PACK (K33JJD AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (O33JJ5DCM 120/60)

GENERAL PURPOSE VALVES



Series 30 >> Model 33

3-Way Normally Closed Valve – Piped Exhaust

Complete range of valves particularly suitable when cost and size are major factors. The bodies are constructed of brass (stainless steel is optional). Air, water, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, and many oils require special seal materials.

- Brass body with stainless steel internal construction.
- A smaller, cost effective alternative to any industry standard.

Note: This valve also available as an operator. Refer to following page.

OPERATING CONDITIONS

Media: Air, water, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, and many oils require special seal materials. (Series 30 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 6.0 to 650V AC 60 HZ. and 5.2 to 560V AC 50 HZ. – 2.0 to 240V DC

Nominal Power: AC – 8.0 Watts, DC – 8.0 Watts

Coil Construction: Molded (Std.), Non-molded Class A and potted Class F. (Class H optional)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Brass (Std.) or Stainless Steel (Opt.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: Standard 1/8" NPT (other ports available).*

Housing: Grommet and 1/2" NPT conduit - many options available.*

Listings: Most valves are UL and CSA listed.*

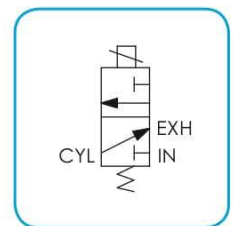
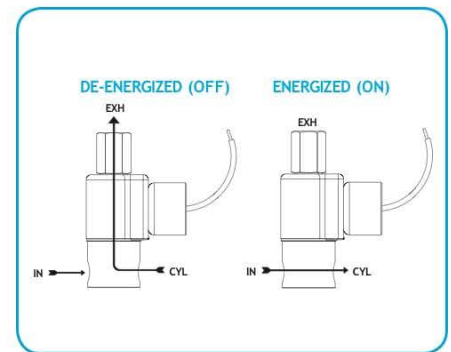
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

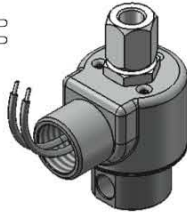
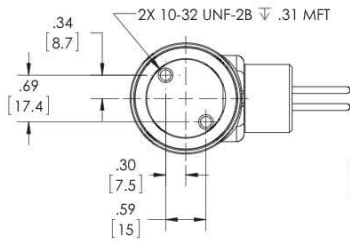
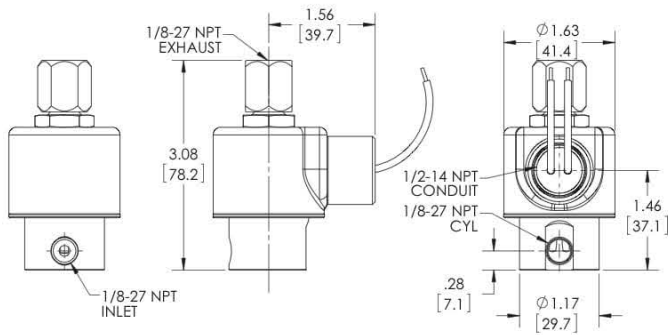
Valve Weight: Grommet Valve: 0.75 lb Conduit Valve: 0.81 lb

Repair Packs: See table on proceeding page.

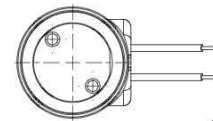
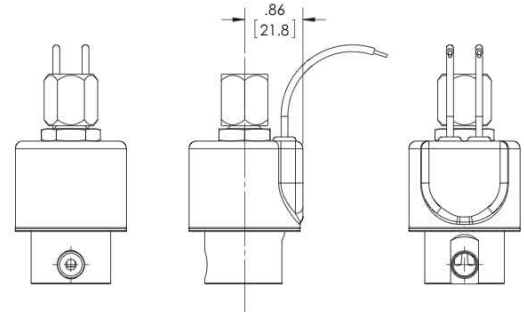
Options: Alternate Port Locations, Metering, Manual Override, Alternate Elastomers, Spade Terminal Coil

* Consult representative or factory for options and specifications.





**SERIES 30
MODEL 33
3WNC PIPED EXHAUST
CONDUIT CONNECTION**



**SERIES 30
MODEL 33
3WNC PIPED EXHAUST
GROMMET HOUSING WITH LEADS**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		ORIFICE SIZE		CV FACTOR		VALVE NUMBER	
AC	DC	N.C.	N.O.	N.C.	N.O.	GROMMET HOUSING 1/8 NPT PORTS	CONDUIT HOUSING 1/8 NPT PORTS
300	300	1/32	1/32	.024	.024	33GG5XGM	33GG5XCM
175	175	3/64	1/16	.052	.095	33HJ5XGM	33HJ5XCM
125	125	1/16	1/16	.095	.095	33JJ5XGM	33JJ5XCM
75	75	3/32	3/32	.160	.160	33KK5XGM	33KK5XCM
50	50	1/8	3/32	.275	.160	33NK5XGM	33NK5XCM

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (33JJ5XCM 120/60) REPAIR PACK (K33JJX AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (O33JJ5DCM 120/60)

GENERAL PURPOSE VALVES



Series 30 >> Model 34

3-Way Normally Open Valve

Complete range of valves particularly suitable when cost and size are major factors. The bodies are constructed of brass (stainless steel is optional). Air, water, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, and many oils require special seal materials.

- Brass body with stainless steel internal construction.
- A smaller, cost effective alternative to any industry standard.

Note: This valve also available as an operator. Refer to following page.

OPERATING CONDITIONS

Media: Air, water, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, and many oils require special seal materials. (Series 30 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 6.0 to 650V AC 60 HZ. and 5.2 to 560V AC 50 HZ. – 2.0 to 240V DC

Nominal Power: AC – 8.0 Watts, DC – 8.0 Watts

Coil Construction: Molded (Std.), Non-molded Class A and potted Class F. (Class H optional)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Brass (Std.) or Stainless Steel (Opt.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: Standard 1/8" NPT (other ports available).*

Housing: Grommet and 1/2" NPT conduit - many options available.*

Listings: Most valves are UL and CSA listed.*

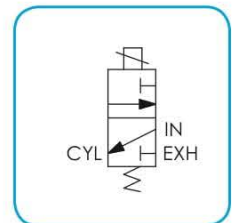
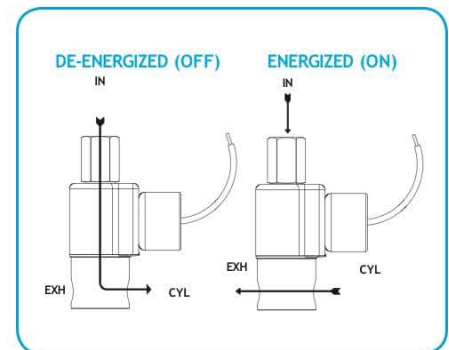
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

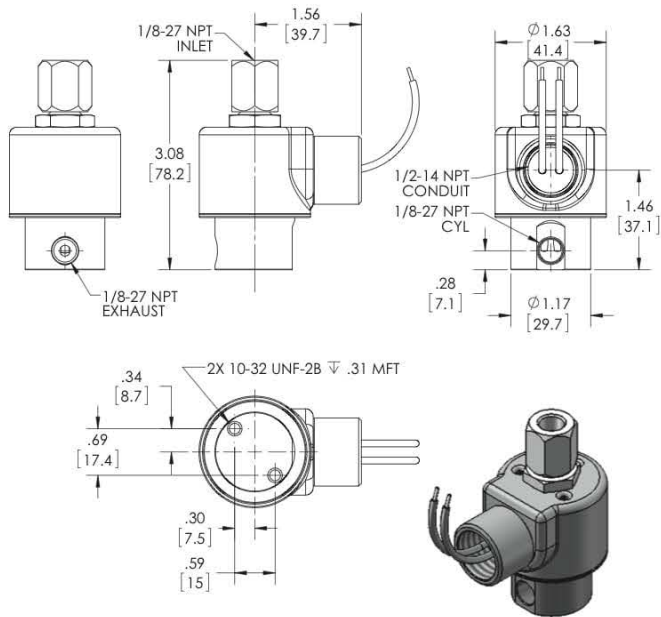
Valve Weight: Grommet Valve: 0.75 lb Conduit Valve: 0.81 lb

Repair Packs: See table on proceeding page.

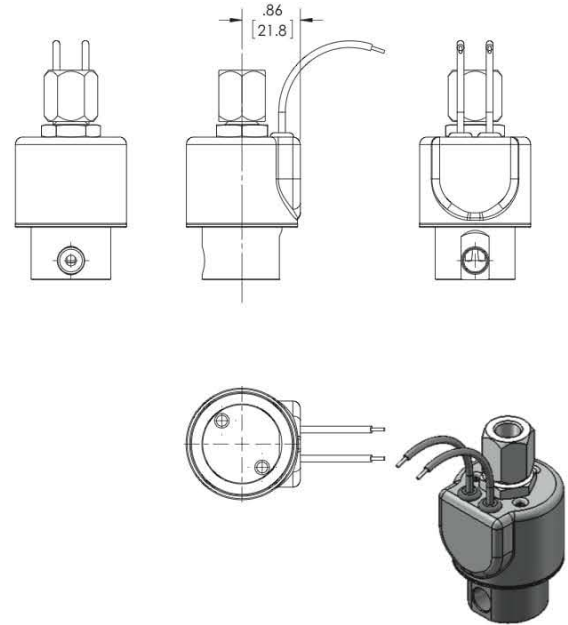
Options: Alternate Port Locations, Metering, Manual Override, Alternate Elastomers, Spade Terminal Coil

* Consult representative or factory for options and specifications.





**SERIES 30
MODEL 34
3WNO
CONDUIT CONNECTION**



**SERIES 30
MODEL 34
3WNO
GROMMET HOUSING WITH LEADS**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		ORIFICE SIZE		CV FACTOR		VALVE NUMBER	
AC	DC	N.O.	N.C.	N.O.	N.C.	GROMMET HOUSING 1/8 NPT PORTS	CONDUIT HOUSING 1/8 NPT PORTS
300	300	1/32	1/32	.024	.024	34GG5XGM	34GG5XCM
175	175	3/64	1/16	.052	.095	34HJ5XGM	34HJ5XCM
100	100	1/16	3/32	.095	.160	34JK5XGM	34JK5XCM
60	60	3/32	1/8	.160	.275	34KN5XGM	34KN5XCM

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (34HJ5XCM 120/60) REPAIR PACK (K34HJX AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (O34HJ5DCM 120/60)

GENERAL PURPOSE VALVES



Series 30 >> Model 35

3-Way Directional Control Valve

Complete range of valves particularly suitable when cost and size are major factors. The bodies are constructed of brass (stainless steel is optional). Air, water, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, and many oils require special seal materials.

- Brass body with stainless steel internal construction.
- A smaller, cost effective alternative to any industry standard.

Note: This valve also available as an operator. Refer to following page.

OPERATING CONDITIONS

Media: Air, water, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, and many oils require special seal materials. (Series 30 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 6.0 to 650V AC 60 HZ. and 5.2 to 560V AC 50 HZ. – 2.0 to 240V DC

Nominal Power: AC – 8.0 Watts, DC – 8.0 Watts

Coil Construction: Molded (Std.), Non-molded Class A and potted Class F. (Class H optional)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Brass (Std.) or Stainless Steel (Opt.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: Standard 1/8" NPT (other ports available).*

Housing: Grommet and 1/2" NPT conduit - many options available.*

Listings: Most valves are UL and CSA listed.*

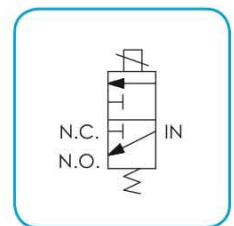
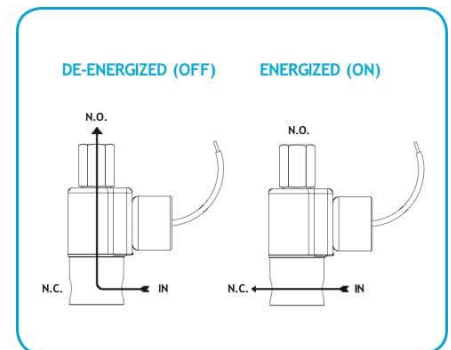
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

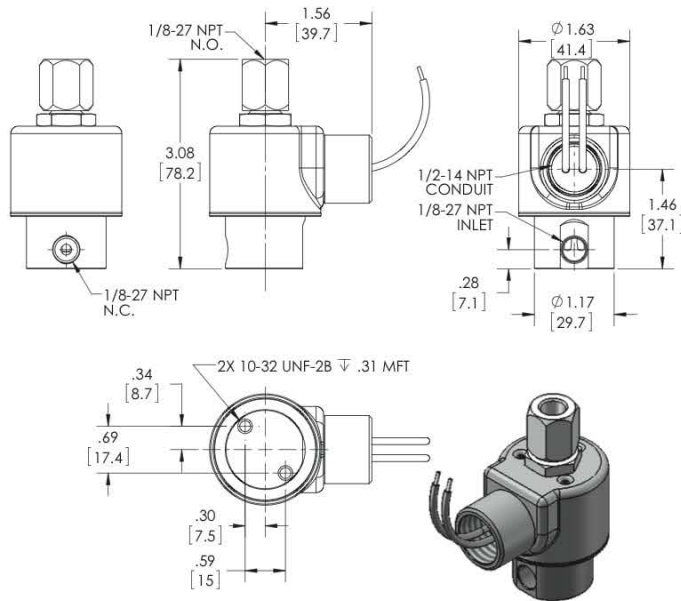
Valve Weight: Grommet Valve: 0.75 lb Conduit Valve: 0.81 lb

Repair Packs: See table on proceeding page.

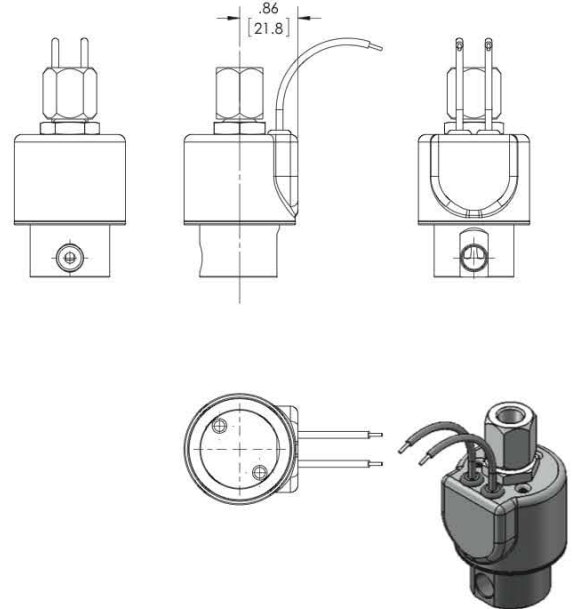
Options: Alternate Port Locations, Metering, Manual Override, Alternate Elastomers, Spade Terminal Coil

* Consult representative or factory for options and specifications.





**SERIES 30
MODEL 35
3-WAY DIRECTIONAL CONTROL
CONDUIT CONNECTION**



**SERIES 30
MODEL 35
3-WAY DIRECTIONAL CONTROL
GROMMET HOUSING WITH LEADS**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		ORIFICE SIZE		CV FACTOR		VALVE NUMBER	CONDUIT HOUSING
AC	DC	N.C.	N.O.	N.C.	N.O.	GROMMET HOUSING 1/8 NPT PORTS	1/8 NPT PORTS
300	300	1/32	1/32	.024	.024	35GG5XGM	35GG5XCM
175	175	3/64	1/16	.052	.095	35HJ5XGM	35HJ5XCM
125	125	1/16	1/16	.095	.095	35JJ5XGM	35JJ5XCM
75	75	3/32	3/32	.160	.160	35KK5XGM	35KK5XCM
50	50	1/8	3/32	.275	.160	35NK5XGM	35NK5XCM

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (35HJ5XGM 120/60) REPAIR PACK (K35HJX AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (Q35HJ5DGM 120/60)

GENERAL PURPOSE VALVES



Series 30 >> Model 36

3-Way Multi-Purpose Valve

Complete range of valves particularly suitable when cost and size are major factors. The bodies are constructed of brass (stainless steel is optional). Air, water, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, and many oils require special seal materials.

- Brass body with stainless steel internal construction.
- A smaller, cost effective alternative to any industry standard.

Note: This valve also available as an operator. Refer to following page.

OPERATING CONDITIONS

Media: Air, water, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, and many oils require special seal materials. (Series 30 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 6.0 to 650V AC 60 HZ. and 5.2 to 560V AC 50 HZ. – 2.0 to 240V DC

Nominal Power: AC – 8.0 Watts, DC – 8.0 Watts

Coil Construction: Molded (Std.), Non-molded Class A and potted Class F. (Class H optional)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Brass (Std.) or Stainless Steel (Opt.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: Standard 1/8" NPT (other ports available).*

Housing: Grommet and 1/2" NPT conduit - many options available.*

Listings: Most valves are UL and CSA listed.*

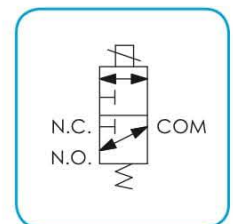
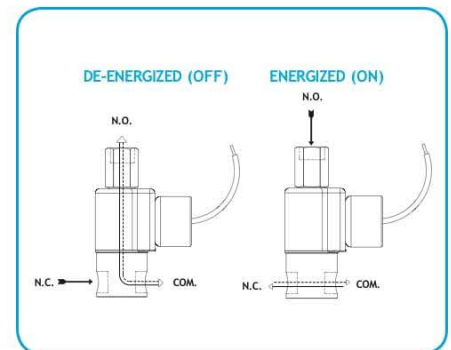
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

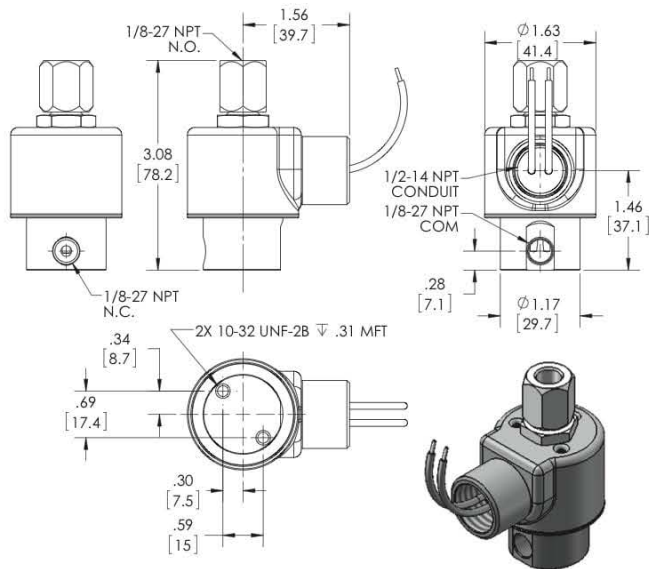
Valve Weight: Grommet Valve: 0.75 lb Conduit Valve: 0.81 lb

Repair Packs: See table on proceeding page.

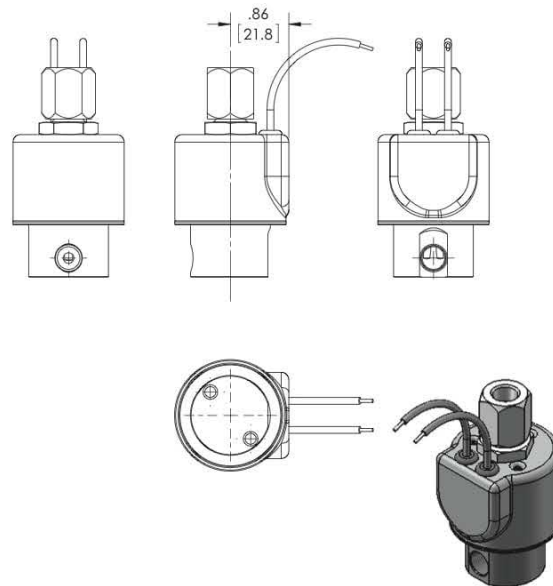
Options: Alternate Port Locations, Metering, Manual Override, Alternate Elastomers, Spade Terminal Coil

* Consult representative or factory for options and specifications.





**SERIES 30
MODEL 36
3-WAY MULTI-PURPOSE
CONDUIT CONNECTION**



**SERIES 30
MODEL 36
3-WAY MULTI-PURPOSE
GROMMET HOUSING WITH LEADS**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		ORIFICE SIZE		CV FACTOR		VALVE NUMBER	
AC	DC	N.C.	N.O.	N.C.	N.O.	GROMMET HOUSING 1/8 NPT PORTS	CONDUIT HOUSING 1/8 NPT PORTS
300	300	1/32	1/32	.024	.024	36GG5XGM	36GG5XCM
150	150	3/64	3/64	.052	.052	36HH5XGM	36HH5XCM
75	75	1/16	1/16	.095	.095	36JJ5XGM	36JJ5XCM
50	30	3/32	3/32	.160	.160	36KK5XGM	36KK5XCM

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (36HH5XCV 120/60) REPAIR PACK (K36HHX AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (O36HH5DCV 120/60)

GENERAL PURPOSE VALVES



Series 40 >> Model 42

All-Plastic – 2-Way Normally Closed

General purpose valve engineered for economical applications. Engineered for competitive cost and reliable service. The valves can be used with air, inert gas and liquid media.

- **Cost competitive.**
- **Molded plastic exterior with internal stainless steel parts.**
- **Engineered with proven performance and reliable service.**
- **Also available with a forged brass body and integral mounting bracket.**
- **Great for humidifiers, pneumatic actuation systems, beverage dispensers and other equipment.**

OPERATING CONDITIONS

Media: Air, inert gases and liquid media. (Series 40 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures. Do NOT allow water to freeze when using plastic body.

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 1000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 12 to 252V AC 60 HZ. and 10.5 to 221V AC 50 HZ. – 4.7 to 100V DC

Nominal Power: AC – 3.3 Watts DC – 5.0 Watts

Coil Construction: Encapsulated Molded Class B with 24" leads

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Polyester Plastic (Std.) or Forged Brass (Opt.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: 1/8" NPT

Housing: Grommet

Listings: Most valves are UL and CSA listed.*

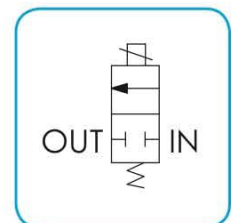
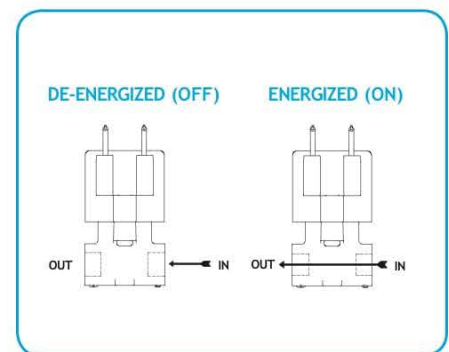
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

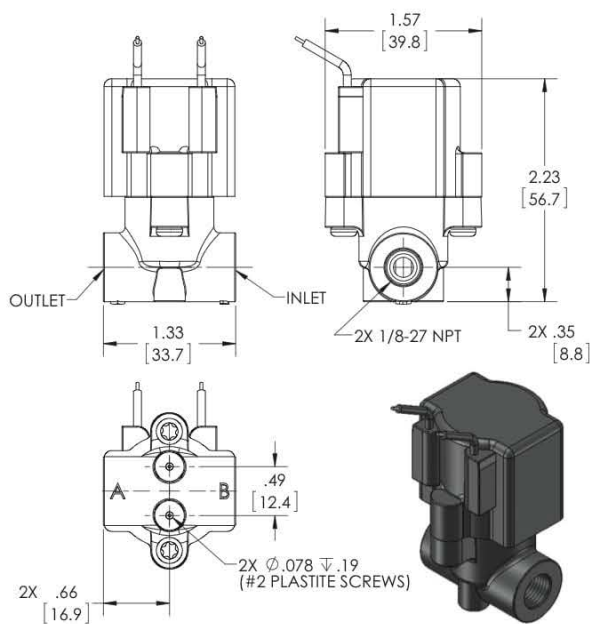
Valve Weight: 0.27 lbs average (with plastic body)

Repair Packs: See table on proceeding page.

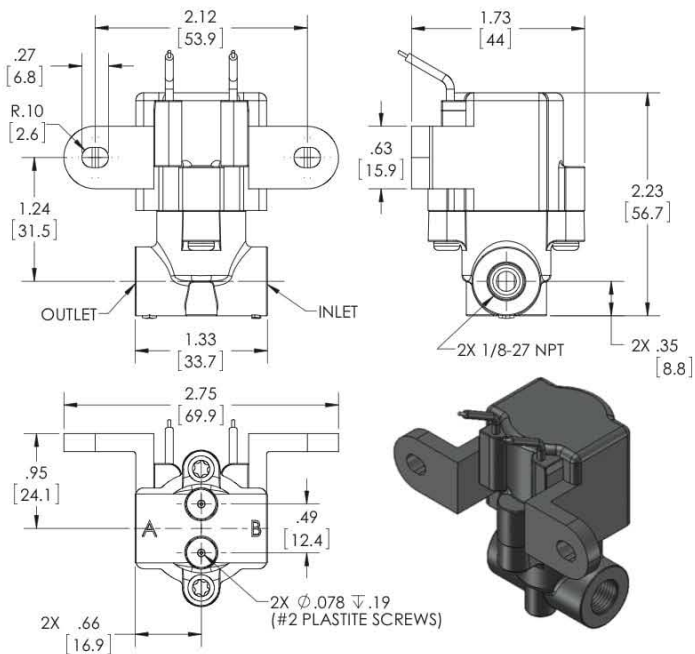
Options: Forged brass body in various porting styles.*

* Consult representative or factory for options and specifications.





**SERIES 40
MODEL 42 (NO BRACKET)
2WNC
MOLDED WITH LEADS**



**SERIES 40
MODEL 42 (WITH BRACKET)
2WNC
MOLDED WITH LEADS**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		ORIFICE SIZE N.C.	CV FACTOR N.C.	VALVE NUMBER	
AC	DC			WITHOUT BRACKET	WITH BRACKET
300	300	1/32	.022	42G15DGM	42G15DBGM
300	150	3/64	.055	42H15DGM	42H15DBGM
300	100	1/16	.090	42J15DGM	42J15DBGM
250	60	3/32	.145	42K15DGM	42K15DBGM
125	30	1/8	.200	42N15DGM	42N15DBGM

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (42J15DGM 120/60) REPAIR PACK (K42JD AC)

NO OPERATOR AVAILABLE

GENERAL PURPOSE VALVES



Series 40 >> Model 43

All-Plastic – 3-Way Normally Closed – Exhaust to Atmosphere

General purpose valve engineered for economical applications. Engineered for competitive cost and reliable service. The valves can be used with air, inert gas and liquid media.

- **Cost competitive.**
- **Molded plastic exterior with internal stainless steel parts.**
- **Engineered with proven performance and reliable service.**
- **Also available with a forged brass body and integral mounting bracket.**
- **Great for humidifiers, pneumatic actuation systems, beverage dispensers and other equipment.**

OPERATING CONDITIONS

Media: Air, inert gases and liquid media. (Series 40 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures. Do NOT allow water to freeze when using plastic body.

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 1000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 12 to 252V AC 60 HZ. and 10.5 to 221V AC 50 HZ. – 4.7 to 100V DC

Nominal Power: AC – 3.3 Watts DC – 5.0 Watts

Coil Construction: Encapsulated Molded Class B with 24" leads

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Polyester Plastic (Std.) or Forged Brass (Opt.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: 1/8" NPT

Housing: Grommet

Listings: Most valves are UL and CSA listed.*

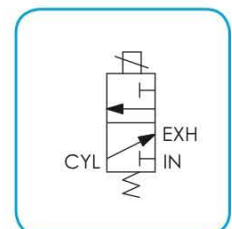
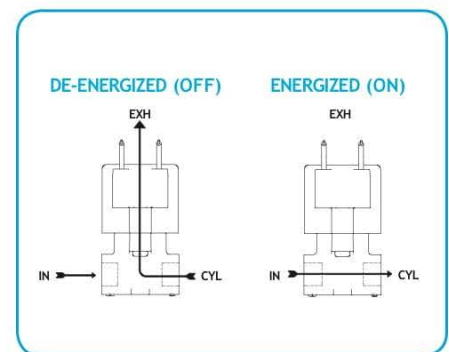
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

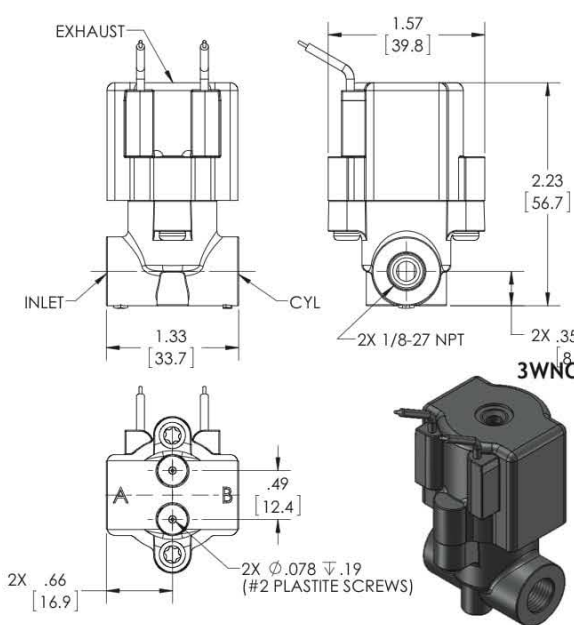
Valve Weight: 0.27 lbs average (with plastic body)

Repair Packs: See table on proceeding page.

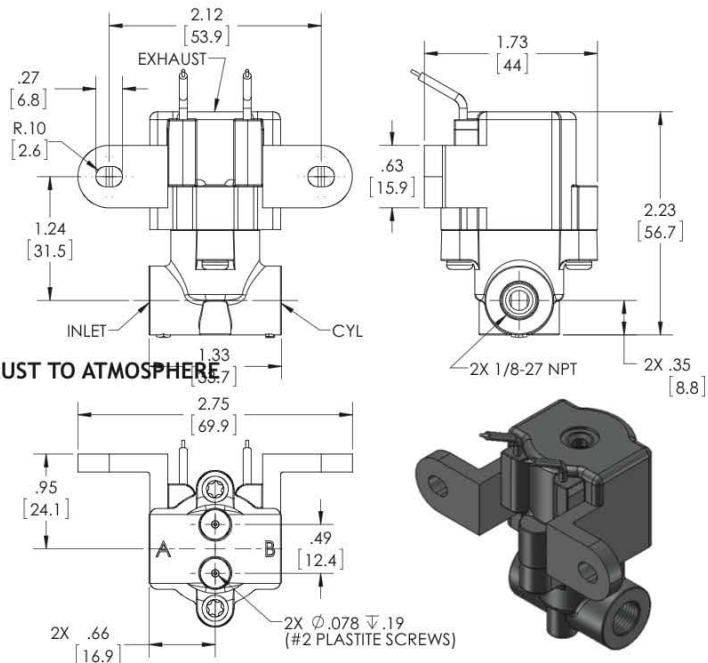
Options: Forged brass body in various porting styles.*

* Consult representative or factory for options and specifications.





**SERIES 40
MODEL 43 (NO BRACKET)
3WNC EXHAUST TO ATMOSPHERE
MOLDED WITH LEADS**



**SERIES 40
MODEL 43 (WITH BRACKET)
3WNC EXHAUST TO ATMOSPHERE
MOLDED WITH LEADS**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		ORIFICE SIZE		CV FACTOR		VALVE NUMBER	
AC	DC	N.C.	N.O.	N.C.	N.O.	WITHOUT BRACKET	WITH BRACKET
150	150	1/16	1/16	.090	.075	43JJ15DGM	43JJ15DBGM
60	60	3/32	3/32	.145	.145	43KK15DGM	43KK15DBGM
30	30	1/8	3/32	.200	.145	43NK15DGM	43NK15DBGM

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (43JJ15DGM 120/60) REPAIR PACK (K43JJD AC)

NO OPERATOR AVAILABLE

GENERAL PURPOSE VALVES



Series 40 >> Model 43

All-Plastic – 3-Way Normally Closed Valve – Piped Exhaust

General purpose valve engineered for economical applications. Engineered for competitive cost and reliable service. The valves can be used with air, inert gas and liquid media.

- **Cost competitive.**
- **Molded plastic exterior with internal stainless steel parts.**
- **Engineered with proven performance and reliable service.**
- **Also available with a forged brass body and integral mounting bracket.**
- **Great for humidifiers, pneumatic actuation systems, beverage dispensers and other equipment.**

OPERATING CONDITIONS

Media: Air, inert gases and liquid media. (Series 40 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures. Do NOT allow water to freeze when using plastic body.

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 1000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 12 to 252V AC 60 HZ. and 10.5 to 221V AC 50 HZ. – 4.7 to 100V DC

Nominal Power: AC – 3.3 Watts DC – 5.0 Watts

Coil Construction: Encapsulated Molded Class B with 24" leads

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Polyester Plastic (Std.) or Forged Brass (Opt.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: 1/8" NPT

Housing: Grommet

Listings: Most valves are UL and CSA listed.*

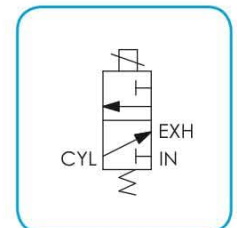
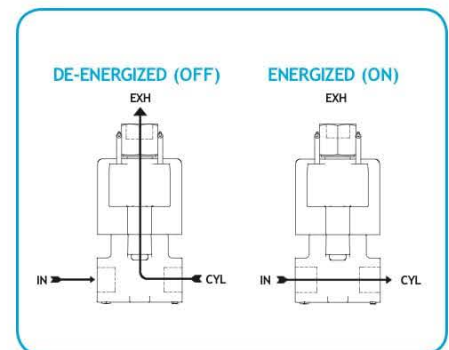
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

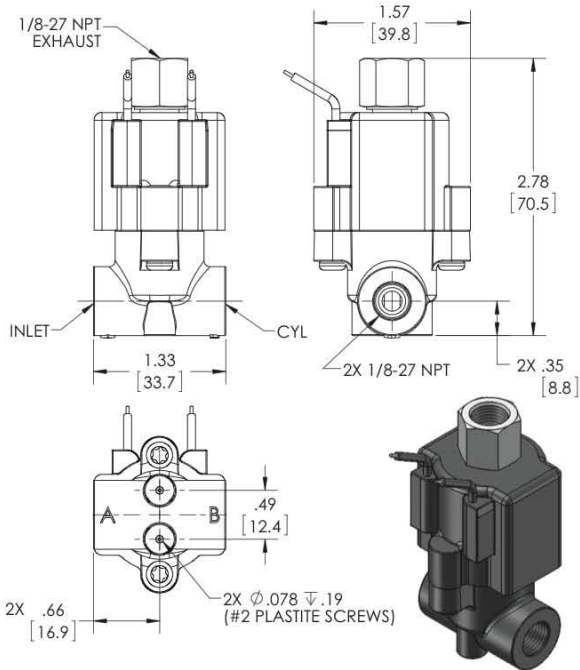
Valve Weight: 0.27 lbs average (with plastic body)

Repair Packs: See table on proceeding page.

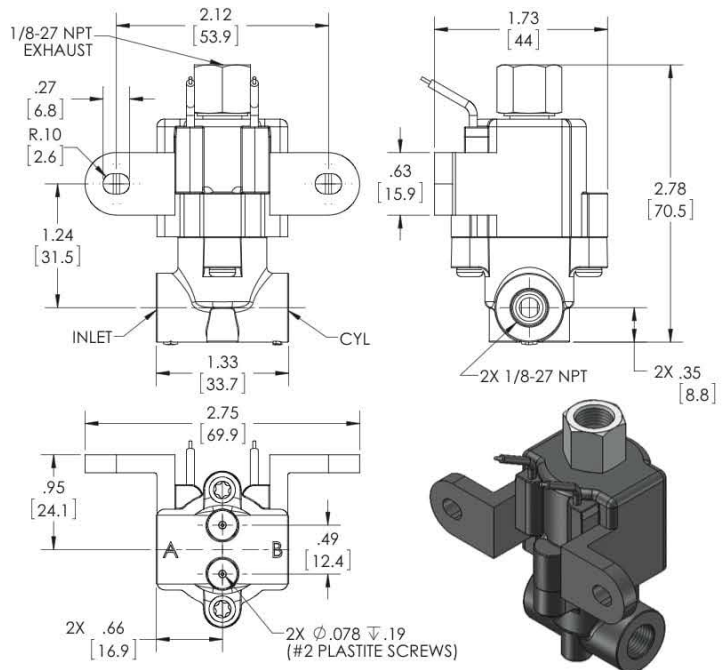
Options: Forged brass body in various porting styles.*

* Consult representative or factory for options and specifications.





**SERIES 40
MODEL 43 (NO BRACKET)
3WNC PIPED EXHAUST
MOLDED WITH LEADS**



**SERIES 40
MODEL 43 (WITH BRACKET)
3WNC PIPED EXHAUST
MOLDED WITH LEADS**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		ORIFICE SIZE		CV FACTOR		VALVE NUMBER	
AC	DC	N.C.	N.O.	N.C.	N.O.	WITHOUT BRACKET	WITH BRACKET
150	150	1/16	1/16	.090	.075	43JJ15XGM	43JJ15XBGM
60	60	3/32	3/32	.145	.145	43KK15XGM	43KK15XBGM
30	30	1/8	3/32	.200	.145	43NK15XGM	43NK15XBGM

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (43JJ15XGM 120/60) REPAIR PACK (K43JJX AC)

NO OPERATOR AVAILABLE

GENERAL PURPOSE VALVES



Note: This valve also available as an operator. Refer to following page.

Series 20 >> Model 21

2-Way Normally Open Valve

A complete line of valves with a great selection of options and exceptional proven performance. The standard in the field. Air, water, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, and many oils require special seal materials.

- The flagship valve initially created for fluid power industry.
- Heavy duty and made of stainless steel.
- A real workhorse with proven performance.
- It has the greatest amount of options available of all the valves.
- Wide range of orifice sizes from 1/32" to 1/8".

OPERATING CONDITIONS

Media: Air, water, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, and many oils require special seal materials. (Series 20 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 6 to 825V AC 60 HZ. and 5 to 720V AC 50 HZ. — 1.8 to 265V DC

Nominal Power: AC — 8.7 Watts DC — 9.5 Watts

Coil Construction: Molded (Std.), Non-molded Class A and potted Class F (Class H optional)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.) or Brass (Opt.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: Standard 1/8" and 1/4" NPT (other ports available).*

Housing: Grommet and 1/2" NPT conduit - many options available.*

Listings: Most valves are UL and CSA listed.*

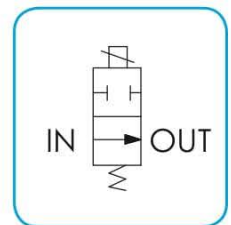
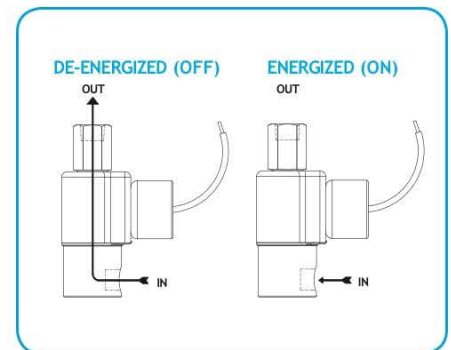
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

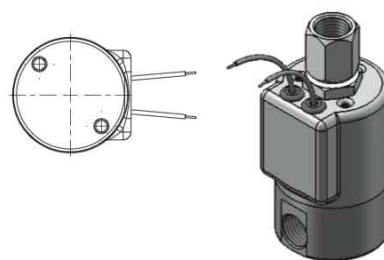
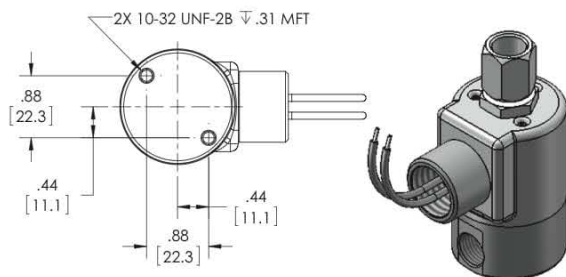
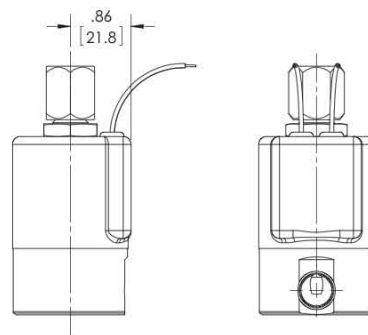
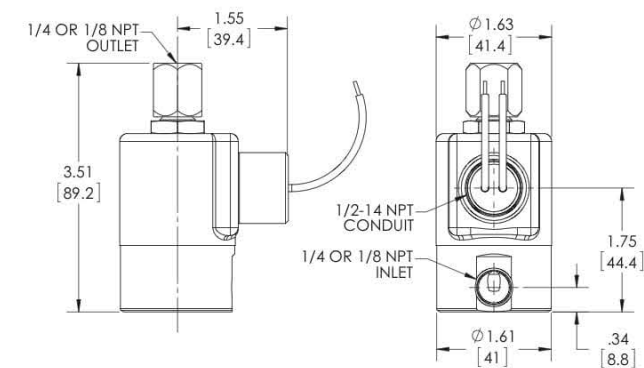
Valve Weight: Grommet Valve: 1.13 lb Conduit Valve: 1.19 lb

Repair Packs: See table on proceeding page.

Options: Alternate Port Locations, Metering, Manual Override, Alternate Elastomers, Spade Terminal Coil, European Style DIN, Explosion Proof and Magnetic Latching Coil

* Consult representative or factory for options and specifications.





**SERIES 20
MODEL 21
2WNO
CONDUIT CONNECTION**

**SERIES 20
MODEL 21
2WNO
GROMMET HOUSING WITH LEADS**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF. +		ORIFICE SIZE N.O.	CV FACTOR N.O.	VALVE NUMBER			
AC	DC			GROMMET HOUSING		CONDUIT HOUSING	
				1/8 NPT PORTS	1/4 NPT PORTS	1/8 NPT PORTS	1/4 NPT PORTS
400 (700)*	400 (700)*	1/32	.024	21G7XGM	21G9ZGM	21G7XCM	21G9ZCM
235 (500)	235 (500)	3/64	.053	21H7XGM	21H9ZGM	21H7XCM	21H9ZCM
150 (350)	150 (350)	1/16	.095	21J7XGM	21J9ZGM	21J7XCM	21J9ZCM
100 (150)	100 (150)	3/32	.156	21K7XGM	21K9ZGM	21K7XCM	21K9ZCM
35 (40)	35 (40)	1/8	.201	21N7XGM [^]	21N9ZGM [^]	21N7XCM [^]	21N9ZCM [^]

[^] VALVES WITH 1/8 N.O. ORIFICE ARE UL LISTED ONLY

* FKM seals not recommended for pressure ratings above 500 PSI.

+ Ratings in brackets are optional extended ratings; consult factory.

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (21J9ZGM 120/60) REPAIR PACK (K21JDX AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (Q21J9DGM 120/60)

GENERAL PURPOSE VALVES



Series 20 >> Model BP21 (Body Ported)

2-Way Normally Open Valve – All Porting in the Body

A complete line of valves with a great selection of options and exceptional proven performance. The standard in the field. For use with air, water, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, and many oils require special seal materials.

- 2-Way Normally Open with all ports in body.
- Heavy duty and made of stainless steel.
- Wide range of orifice sizes from 1/32" to 1/8".

Note: This valve also available as an operator. Refer to following page.

OPERATING CONDITIONS

Media: Air, water, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, and many oils require special seal materials. (Series 20 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 6 to 825V AC 60 HZ. and 5 to 720V AC 50 HZ. – 1.8 to 265V DC

Nominal Power: AC – 7.7 Watts DC – 9.5 Watts

Coil Construction: Non-molded Class A (Std.), Molded and Potted Class F or Class H (Opt.)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.) or Brass (Opt.)

Internal Components: Stainless Steel and Brass

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: See table above.

Housing: Grommet and 1/2" NPT conduit - many options available.*

Listings: Most valves are UL and CSA listed.*

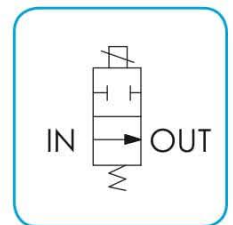
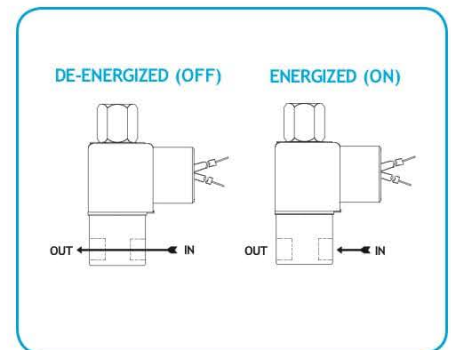
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

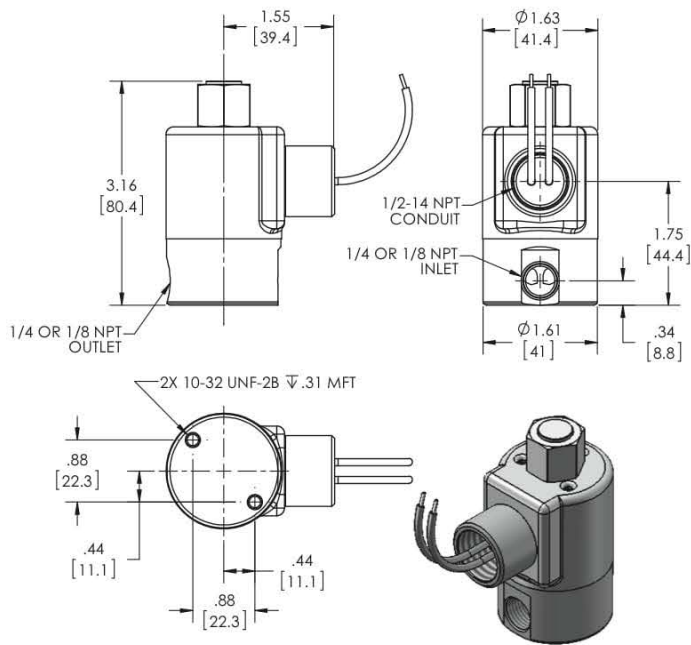
Valve Weight: Grommet Valve: 1.13 lb Conduit Valve: 1.19 lb

Repair Packs: See table on proceeding page.

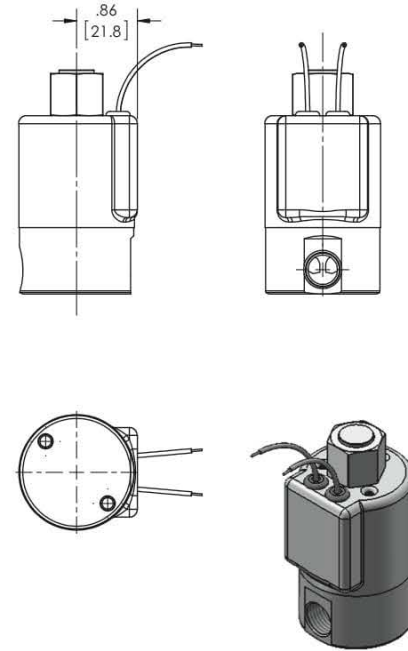
Options: Alternate Port Locations, Metering, Alternate Elastomers

* Consult representative or factory for options and specifications.





**SERIES 20
MODEL BP21
2WNO BODY PORTS
CONDUIT CONNECTION**



**SERIES 20
MODEL BP21
2WNO BODY PORTS
GROMMET HOUSING WITH LEADS**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.	ORIFICE SIZE	CV FACTOR	VALVE NUMBER		CONDUIT HOUSING	
			GROMMET HOUSING 1/8 NPT PORTS	1/4 NPT PORTS	1/8 NPT PORTS	1/4 NPT PORTS
DC	N.O.	N.O.				
1750*	1/32	.024	BP21G7DGM	BP21G9DGM	BP21G7DCM	BP21G9DCM
650*	3/64	.053	BP21H7DGM	BP21H9DGM	BP21H7DCM	BP21H9DCM
350	1/16	.095	BP21J7DGM	BP21J9DGM	BP21J7DCM	BP21J9DCM
200	3/32	.156	BP21K7DGM	BP21K9DGM	BP21K7DCM	BP21K9DCM
100	1/8	.201	BP21N7DGM	BP21N9DGM	BP21N7DCM	BP21N9DCM

* FKM seals not recommended for pressure above 500 psi.

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (BP21K9DGM 120/60) REPAIR PACK (KBP21KDD-DC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (OBP21K9DGM 120/60)

GENERAL PURPOSE VALVES



Note: This valve also available as an operator. Refer to following page.

Series 20 >> Model 22

2-Way Normally Closed Valve

A complete line of valves with a great selection of options and exceptional proven performance. The standard in the field. Air, water, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, and many oils require special seal materials.

- The flagship valve initially created for fluid power industry.
- Heavy duty and made of stainless steel.
- A real workhorse with proven performance.
- It has the greatest amount of options available of all the valves.
- Wide range of orifice sizes from 1/32" to 5/16".

OPERATING CONDITIONS

Media: Air, water, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, and many oils require special seal materials. (Series 20 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 6 to 825V AC 60 HZ. and 5 to 720V AC 50 HZ. — 1.8 to 265V DC

Nominal Power: AC — 7.7 Watts DC — 9.5 Watts

Coil Construction: Molded (Std.), Non-molded Class A and potted Class F (Class H optional)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.) or Brass (Opt.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: Standard 1/8" and 1/4" NPT (other ports available).*

Housing: Grommet and 1/2" NPT conduit - many options available.*

Listings: Most valves are UL and CSA listed.*

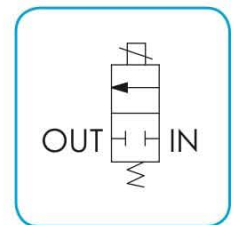
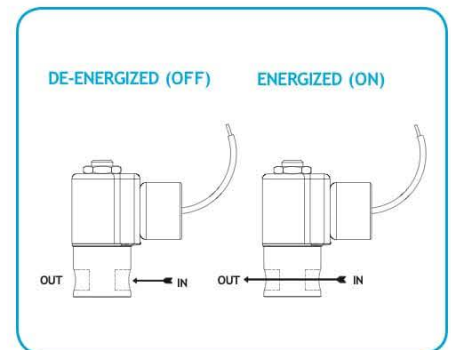
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

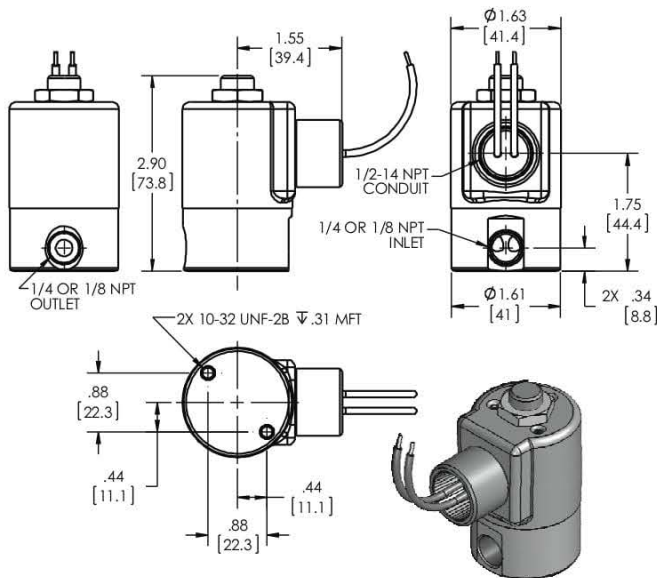
Valve Weight: Grommet Valve: 1.06 lb Conduit Valve: 1.13 lb

Repair Packs: See table on proceeding page.

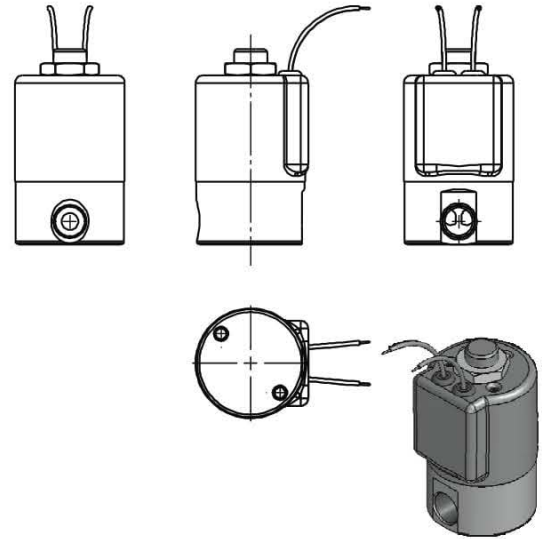
Options: Alternate Port Locations, Metering, Manual Override, Alternate Elastomers, Spade Terminal Coil, European Style DIN, Explosion Proof and Magnetic Latching Coil

* Consult representative or factory for options and specifications.





SERIES 20
MODEL 22
2WNC
CONDUIT CONNECTION



SERIES 20
MODEL 22
2WNC
GROMMET HOUSING WITH LEADS

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.+				VALVE NUMBER			
ORIFICE SIZE		CV FACTOR		GROMMET HOUSING		CONDUIT HOUSING	
AC	DC	N.C.	N.C.	1/8 NPT PORTS	1/4 NPT PORTS	1/8 NPT PORTS	1/4 NPT PORTS
500	500	1/32	.024	22G7DGM	22G9DGM	22G7DCM	22G9DCM
250 (500)	250 (500)	3/64	.052	22H7DGM	22H9DGM	22H7DCM	22H9DCM
200 (400)	200 (400)	1/16	.095	22J7DGM	22J9DGM	22J7DCM	22J9DCM
125 (300)	125 (250)	3/32	.156	22K7DGM	22K9DGM	22K7DCM	22K9DCM
100 (200)	100 (200)	1/8	.284	22N7DGM	22N9DGM	22N7DCM	22N9DCM
75	50	5/32	.404	22O7DGM	22O9DGM	22O7DCM	22O9DCM
50	25	3/16	.500	22P7DGM	22P9DGM	22P7DCM	22P9DCM
20	5	1/4	.700	22R7DGM	22R9DGM	22R7DCM	22R9DCM
15	—	5/16	1.000	—	22S9DGM	—	22S9DCM

* FKM seals not recommended for pressure ratings above 500 PSI.
+ Ratings in brackets are optional extended ratings; consult factory.

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (22N9DCM 120/60) REPAIR PACK (K22NDD AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (O22N9DCM 120/60)

GENERAL PURPOSE VALVES



Note: This valve also available as an operator. Refer to following page.

Series 20 >> Model 23

3-Way Normally Closed – Exhaust to Atmosphere

A complete line of valves with a great selection of options and exceptional proven performance. The standard in the field. Air, water, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, and many oils require special seal materials.

- The flagship valve initially created for fluid power industry.
- Heavy duty and made of stainless steel.
- A real workhorse with proven performance.
- It has the greatest amount of options available of all the valves.
- Wide range of orifice sizes from 1/32" to 1/4".

OPERATING CONDITIONS

Media: Air, water, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, and many oils require special seal materials. (Series 20 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 6 to 825V AC 60 HZ. and 5 to 720V AC 50 HZ. – 1.8 to 265V DC

Nominal Power: AC – 8.7 Watts DC – 9.5 Watts

Coil Construction: Molded (Std.), Non-molded Class A and potted Class F (Class H optional)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.) or Brass (Opt.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: Standard 1/8" and 1/4" NPT (other ports available).*

Housing: Grommet and 1/2" NPT conduit - many options available.*

Listings: Most valves are UL and CSA listed.*

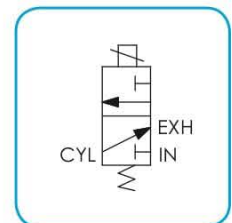
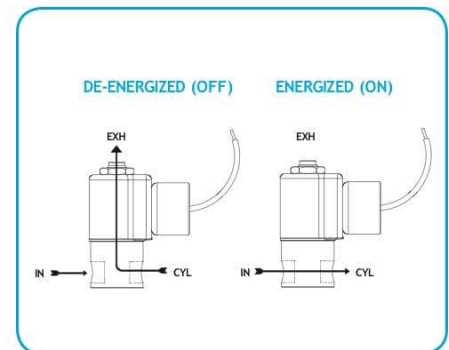
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

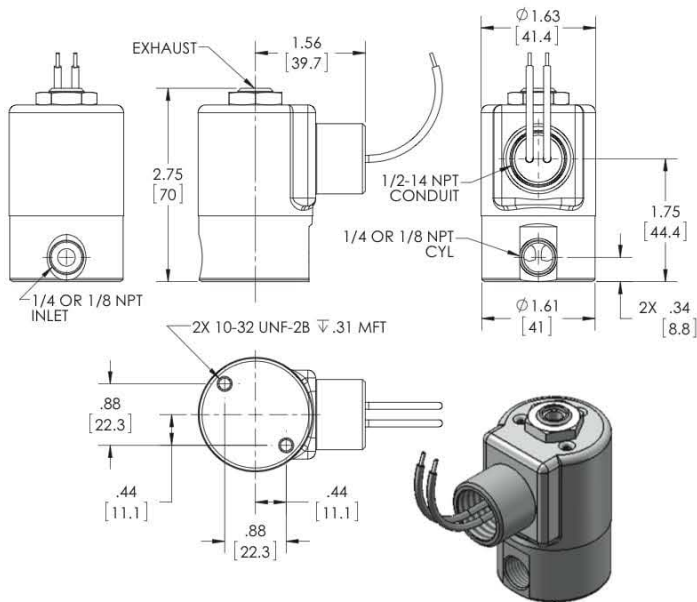
Valve Weight: Grommet Valve: 1.06 lb Conduit Valve: 1.13 lb

Repair Packs: See table on proceeding page.

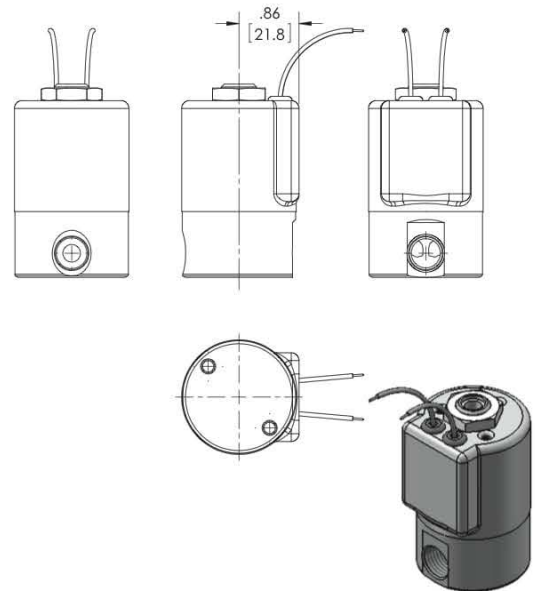
Options: Alternate Port Locations, Metering, Manual Override, Alternate Elastomers, Spade Terminal Coil, European Style DIN, Explosion Proof and Magnetic Latching Coil

* Consult representative or factory for options and specifications.





**SERIES 20
MODEL 23
3WNC EXHAUST TO ATMOSPHERE
CONDUIT CONNECTION**



**SERIES 20
MODEL 23
3WNC EXHAUST TO ATMOSPHERE
GROMMET HOUSING WITH LEADS**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.+		ORIFICE SIZE		CV FACTOR		VALVE NUMBER			
AC	DC	N.C.	N.O.	N.C.	N.O.	GROMMET HOUSING		CONDUIT HOUSING	
						1/8 NPT PORTS	1/4 NPT PORTS	1/8 NPT PORTS	1/4 NPT PORTS
400	400	1/32	1/32	.024	.024	23GG7DGM	23GG9DGM	23GG7DCM	23GG9DCM
150 (200)	150 (200)	3/64	1/16	.052	.095	23HJ7DGM	23HJ9DGM	23HJ7DCM	23HJ9DCM
100 (135)	100 (135)	1/16	1/16	.095	.095	23JJ7DGM	23JJ9DGM	23JJ7DCM	23JJ9DCM
100 (135)	100 (135)	1/16	3/32	.095	.156	23JK7DGM	23JK9DGM	23JK7DCM	23JK9DCM
75 (100)	75 (100)	3/32	3/32	.156	.156	23KK7DGM	23KK9DGM	23KK7DCM	23KK9DCM
50 (70)	50 (70)	1/8	3/32	.284	.156	23NK7DGM	23NK9DGM	23NK7DCM	23NK9DCM
35 (40)	35 (40)	1/8	1/8	.284	.201	23NN7DGM [^]	23NN9DGM [^]	23NN7DCM [^]	23NN9DCM [^]
20	20	3/16	3/32	.500	.156	23PK7DGM	23PK9DGM	23PK7DCM	23PK9DCM
20	20	3/16	1/8	.500	.201	23PN7DGM [^]	23PN9DGM [^]	23PN7DCM [^]	23PN9DCM [^]
15	—	1/4	3/32	.700	.156	23RK7DGM	23RK9DGM	23RK7DCM	23RK9DCM
15	—	1/4	1/8	.700	.201	23RN7DGM [^]	23RN9DGM [^]	23RN7DCM [^]	23RN9DCM [^]

[^] VALVES WITH 1/8 N.O. ORIFICE ARE UL LISTED ONLY

+ Ratings in brackets are optional extended ratings; consult factory.

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (23JK9DGV 120/60) REPAIR PACK (K23JKD AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (O23JK9DGV 120/60)

GENERAL PURPOSE VALVES



Note: This valve also available as an operator. Refer to following page.

Series 20 >> Model 23

3-Way Normally Closed – Piped Exhaust

A complete line of valves with a great selection of options and exceptional proven performance. The standard in the field. Air, water, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, and many oils require special seal materials.

- The flagship valve initially created for fluid power industry.
- Heavy duty and made of stainless steel.
- A real workhorse with proven performance.
- It has the greatest amount of options available of all the valves.
- Wide range of orifice sizes from 1/32" to 1/4".

OPERATING CONDITIONS

Media: Air, water, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, and many oils require special seal materials. (Series 20 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 6 to 825V AC 60 HZ. and 5 to 720V AC 50 HZ. — 1.8 to 265V DC

Nominal Power: AC — 8.7 Watts DC — 9.5 Watts

Coil Construction: Molded (Std.), Non-molded Class A and potted Class F (Class H optional)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.) or Brass (Opt.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: Standard 1/8" and 1/4" NPT (other ports available).*

Housing: Grommet and 1/2" NPT conduit - many options available.*

Listings: Most valves are UL and CSA listed.*

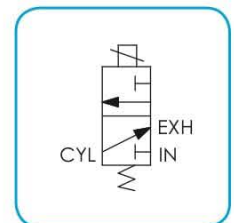
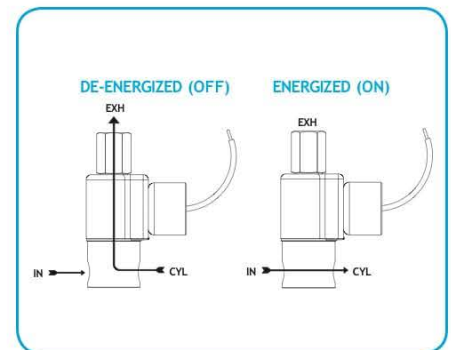
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

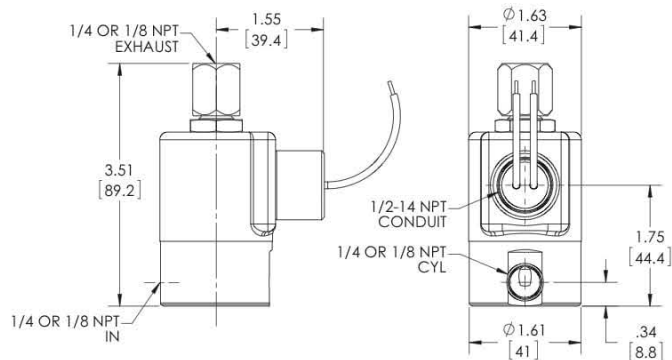
Valve Weight: Grommet Valve: 1.13 lb Conduit Valve: 1.19 lb

Repair Packs: See table on proceeding page.

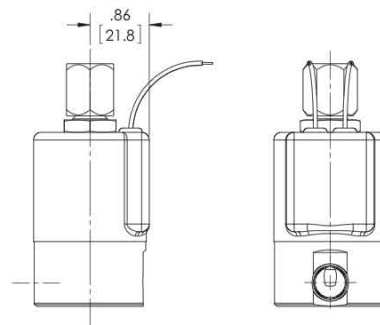
Options: Alternate Port Locations, Metering, Manual Override, Alternate Elastomers, Spade Terminal Coil, European Style DIN, Explosion Proof and Magnetic Latching Coil

* Consult representative or factory for options and specifications.





**SERIES 20
MODEL 23
3WNC PIPED EXHAUST
CONDUIT CONNECTION**



**SERIES 20
MODEL 23
3WNC PIPED EXHAUST
GROMMET HOUSING WITH LEADS**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.+		ORIFICE SIZE		CV FACTOR		VALVE NUMBER			
AC	DC	N.C.	N.O.	N.C.	N.O.	GROMMET HOUSING		CONDUIT HOUSING	
						1/8 NPT PORTS	1/4 NPT PORTS	1/8 NPT PORTS	1/4 NPT PORTS
400	400	1/32	1/32	.024	.024	23GG7XGM	23GG9ZGM	23GG7XCM	23GG9ZCM
150 (200)	150 (200)	3/64	1/16	.052	.095	23HJ7XGM	23HJ9ZGM	23HJ7XCM	23HJ9ZCM
100 (135)	100 (135)	1/16	1/16	.095	.095	23JJ7XGM	23JJ9ZGM	23JJ7XCM	23JJ9ZCM
100 (135)	100 (135)	1/16	3/32	.095	.156	23JK7XGM	23JK9ZGM	23JK7XCM	23JK9ZCM
75 (100)	75 (100)	3/32	3/32	.156	.156	23KK7XGM	23KK9ZGM	23KK7XCM	23KK9ZCM
50 (70)	50 (70)	1/8	3/32	.284	.156	23NK7XGM	23NK9ZGM	23NK7XCM	23NK9ZCM
35 (40)	35 (40)	1/8	1/8	.284	.201	23NN7XGM [^]	23NN9ZGM [^]	23NN7XCM [^]	23NN9ZCM [^]
20	20	3/16	3/32	.500	.156	23PK7XGM	23PK9ZGM	23PK7XCM	23PK9ZCM
20	20	3/16	1/8	.500	.201	23PN7XGM [^]	23PN9ZGM [^]	23PN7XCM [^]	23PN9ZCM
15	—	1/4	3/32	.700	.156	23RK7XGM	23RK9ZGM	23RK7XCM	23RK9ZCM
15	—	1/4	1/8	.700	.201	23RN7XGM [^]	23RN9ZGM [^]	23RN7XCM [^]	23RN9ZCM [^]

[^] VALVES WITH 1/8 N.O. ORIFICE ARE UL LISTED ONLY

+ Ratings in brackets are optional extended ratings; consult factory.

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (23JK9ZGM 120/60) REPAIR PACK (K23JKX AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (O23JK9DGM 120/60)

GENERAL PURPOSE VALVES



Note: This valve also available as an operator. Refer to following page.

Series 20 >> Model 24

3-Way Normally Open Valve

A complete line of valves with a great selection of options and exceptional proven performance. The standard in the field. Air, water, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, and many oils require special seal materials.

- The flagship valve initially created for fluid power industry.
- Heavy duty and made of stainless steel.
- A real workhorse with proven performance.
- It has the greatest amount of options available of all the valves.
- Wide range of orifice sizes from 1/32" to 1/8".

OPERATING CONDITIONS

Media: Air, water, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, and many oils require special seal materials. (Series 20 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 6 to 825V AC 60 HZ. and 5 to 720V AC 50 HZ. — 1.8 to 265V DC

Nominal Power: AC — 8.7 Watts DC — 9.5 Watts

Coil Construction: Molded (Std.), Non-molded Class A and potted Class F (Class H optional)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.) or Brass (Opt.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: Standard 1/8" and 1/4" NPT (other ports available).*

Housing: Grommet and 1/2" NPT conduit - many options available.*

Listings: Most valves are UL and CSA listed.*

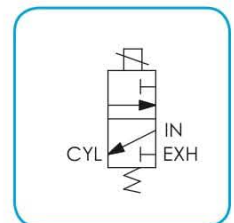
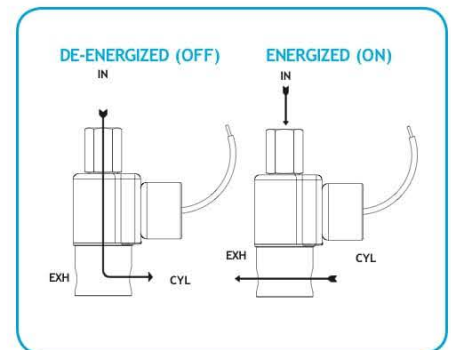
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

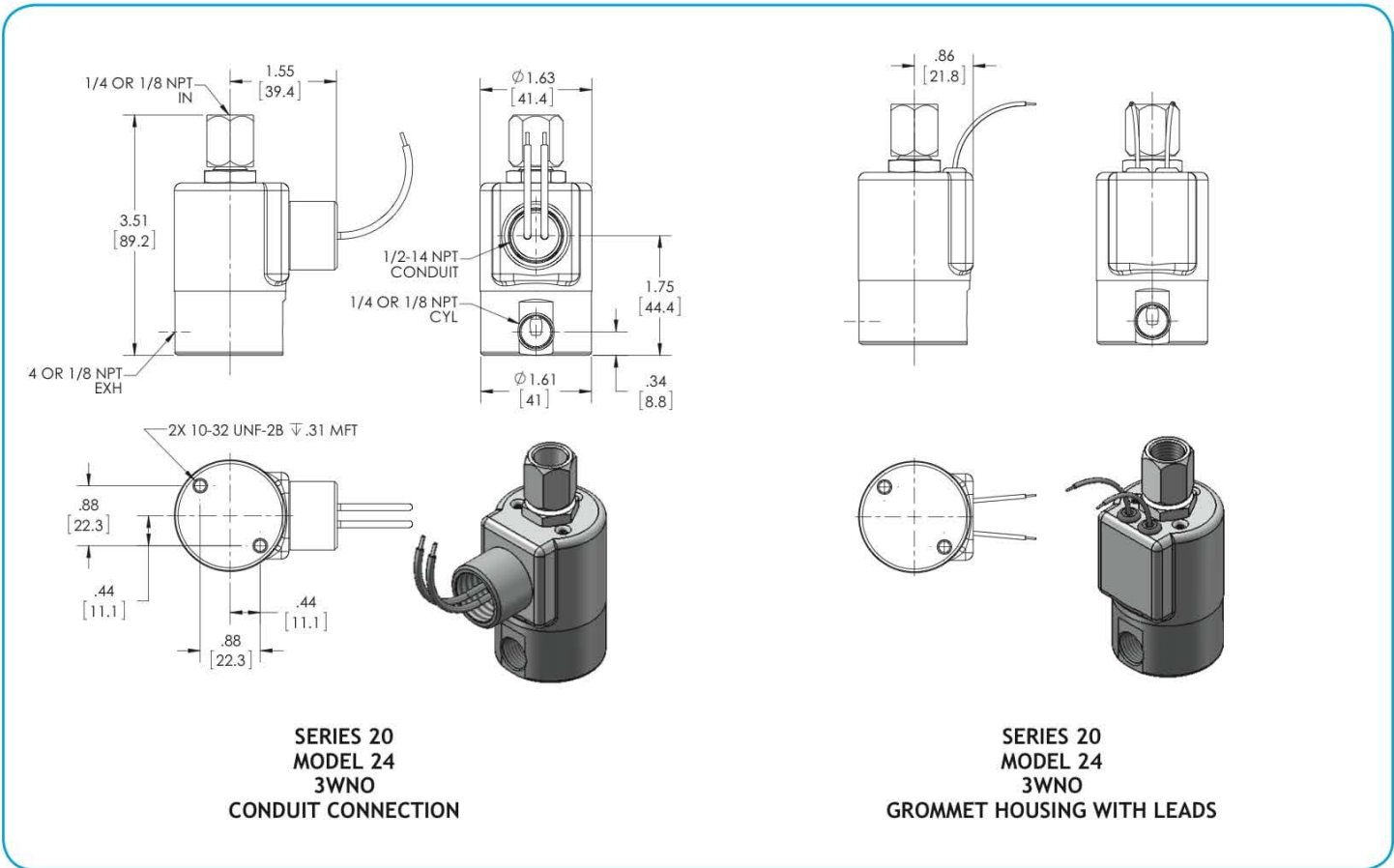
Valve Weight: Grommet Valve: 1.13 lb Conduit Valve: 1.19 lb

Repair Packs: See table on proceeding page.

Options: Alternate Port Locations, Metering, Manual Override, Alternate Elastomers, Spade Terminal Coil, European Style DIN, Explosion Proof and Magnetic Latching Coil

* Consult representative or factory for options and specifications.





VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF. +		ORIFICE SIZE		CV FACTOR		VALVE NUMBER GROMMET HOUSING		CONDUIT HOUSING	
AC	DC	N.O.	N.C.	N.O.	N.C.	1/8 NPT PORTS	1/4 NPT PORTS	1/8 NPT PORTS	1/4 NPT PORTS
400	400	1/32	1/32	.024	.024	24GG7XGM	24GG9ZGM	24GG7XCM	24GG9ZCM
150 (225)	150	3/64	1/16	.052	.095	24HJ7XGM	24HJ9ZGM	24HJ7XCM	24HJ9ZCM
100 (150)	100	1/16	1/16	.095	.095	24JJ7XGM	24JJ9ZGM	24JJ7XCM	24JJ9ZCM
100 (150)	100	1/16	3/32	.095	.156	24JK7XGM	24JK9ZGM	24JK7XCM	24JK9ZCM
100 (125)	100	1/16	1/8	.095	.284	24JN7XGM	24JN9ZGM	24JN7XCM	24JN9ZCM
75 (90)	75	3/32	1/8	.156	.284	24KN7XGM	24KN9ZGM	24KN7XCM	24KN9ZCM
30	30	1/8	1/8	.201	.284	24NN7XGM	24NN9ZGM	24NN7XCM	24NN9ZCM

^ VALVES WITH 1/8 N.O. ORIFICE ARE UL LISTED ONLY

+ Ratings in brackets are optional extended ratings; consult factory.

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (24JK9ZGM 120/60) REPAIR PACK (K24JKX AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (O24JK9DGM 120/60)

GENERAL PURPOSE VALVES



Note: This valve also available as an operator. Refer to following page.

Series 20 >> Model 25

3-Way Directional Control Valve

A complete line of valves with a great selection of options and exceptional proven performance. The standard in the field. Air, water, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, and many oils require special seal materials.

- The flagship valve initially created for fluid power industry.
- Heavy duty and made of stainless steel.
- A real workhorse with proven performance.
- It has the greatest amount of options available of all the valves.
- Wide range of orifice sizes from 1/32" to 1/8".

OPERATING CONDITIONS

Media: Air, water, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, and many oils require special seal materials. (Series 20 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 6 to 825V AC 60 HZ. and 5 to 720V AC 50 HZ. – 1.8 to 265V DC

Nominal Power: AC – 8.7 Watts DC – 9.5 Watts

Coil Construction: Molded (Std.), Non-molded Class A and potted Class F (Class H optional)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.) or Brass (Opt.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: Standard 1/8" and 1/4" NPT (other ports available).*

Housing: Grommet and 1/2" NPT conduit - many options available.*

Listings: Most valves are UL and CSA listed.*

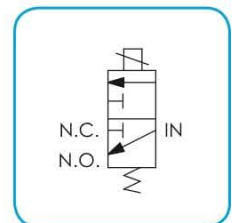
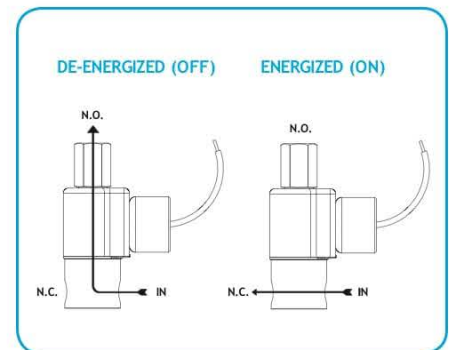
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

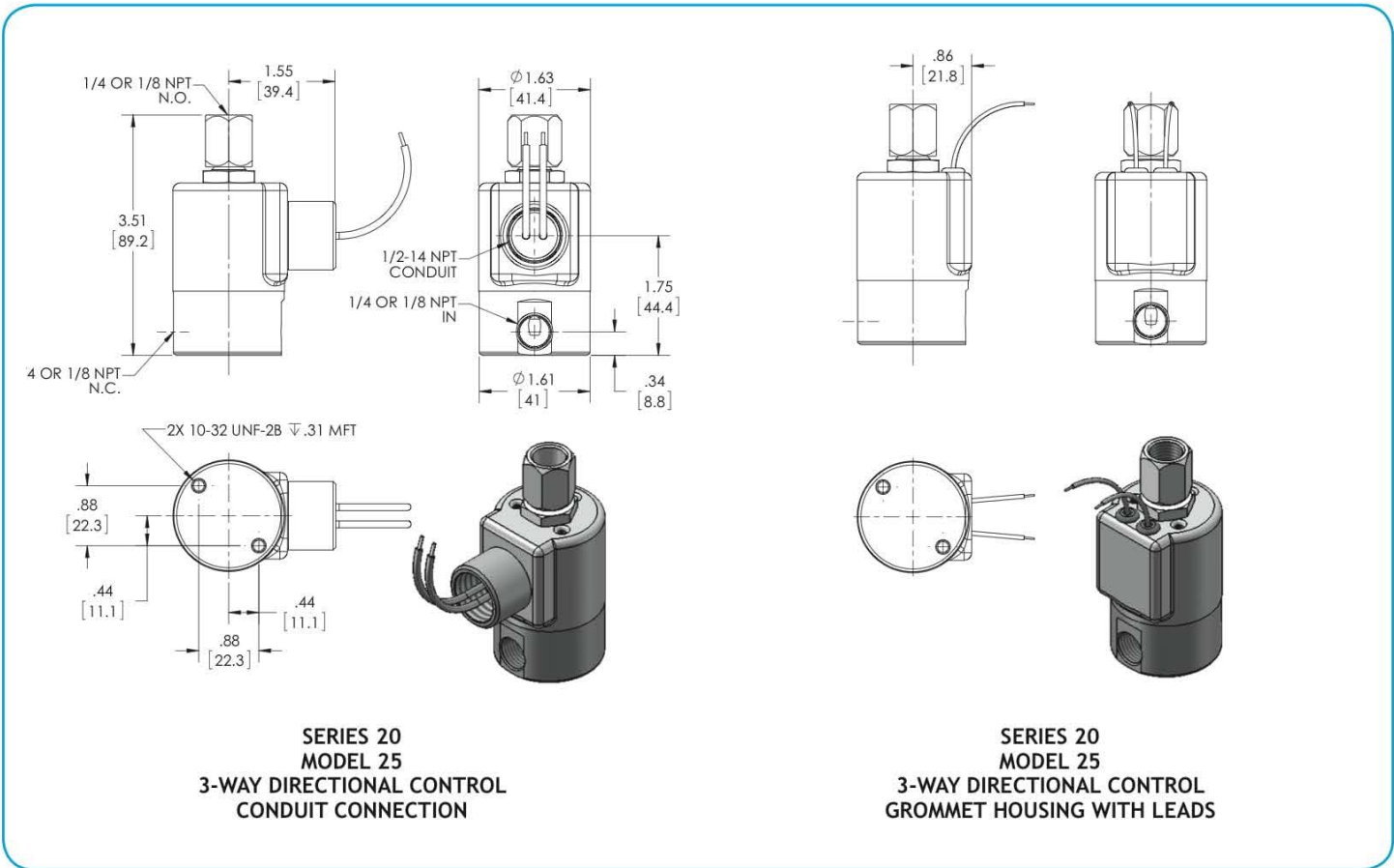
Valve Weight: Grommet Valve: 1.13 lb Conduit Valve: 1.19 lb

Repair Packs: See table on proceeding page.

Options: Alternate Port Locations, Metering, Manual Override, Alternate Elastomers, Spade Terminal Coil, European Style DIN, Explosion Proof and Magnetic Latching Coil

* Consult representative or factory for options and specifications.





**SERIES 20
MODEL 25
3-WAY DIRECTIONAL CONTROL
CONDUIT CONNECTION**

**SERIES 20
MODEL 25
3-WAY DIRECTIONAL CONTROL
GROMMET HOUSING WITH LEADS**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF. +		ORIFICE SIZE		CV FACTOR		VALVE NUMBER GROMMET HOUSING		CONDUIT HOUSING	
AC	DC	N.C.	N.O.	N.C.	N.O.	1/8 NPT PORTS	1/4 NPT PORTS	1/8 NPT PORTS	1/4 NPT PORTS
500	500	1/32	1/32	.024	.024	25GG7XGM	25GG9ZGM	25GG7XCM	25GG9ZCM
235 (400)	235 (300)	3/64	3/64	.052	.052	25HH7XGM	25HH9ZGM	25HH7XCM	25HH9ZCM
200 (225)	200 (200)	1/16	3/64	.095	.052	25JH7XGM	25JH9ZGM	25JH7XCM	25JH9ZCM
150 (225)	150 (200)	1/16	1/16	.095	.095	25JJ7XGM	25JJ9ZGM	25JJ7XCM	25JJ9ZCM
100 (150)	100 (125)	3/32	3/32	.156	.156	25KK7XGM	25KK9ZGM	25KK7XCM	25KK9ZCM
100 (125)	100	1/8	3/32	.284	.156	25NK7XGM	25NK9ZGM	25NK7XCM	25NK9ZCM
30 (40)	35 (40)	1/8	1/8	.284	.201	25NN7XGM^	25NN9ZGM^	25NN7XCM^	25NN9ZCM^

^ VALVES WITH 1/8 N.O. ORIFICE ARE UL LISTED ONLY
 + Ratings in brackets are optional extended ratings; consult factory.

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (25JJ7XGM 120/60) REPAIR PACK (K25JJX AC)
 WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (O25JJ7DGM 120/60)

GENERAL PURPOSE VALVES



Note: This valve also available as an operator. Refer to following page.

Series 20 >> Model 26

3-Way Multi-Purpose Valve

A complete line of valves with a great selection of options and exceptional proven performance. The standard in the field. Air, water, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, and many oils require special seal materials.

- The flagship valve initially created for fluid power industry.
- Heavy duty and made of stainless steel.
- A real workhorse with proven performance.
- It has the greatest amount of options available of all the valves.
- Wide range of orifice sizes from 1/32" to 1/8".

OPERATING CONDITIONS

Media: Air, water, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, and many oils require special seal materials. (Series 20 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 6 to 825V AC 60 HZ. and 5 to 720V AC 50 HZ. — 1.8 to 265V DC

Nominal Power: AC — 8.7 Watts DC — 9.5 Watts

Coil Construction: Molded (Std.), Non-molded Class A and potted Class F (Class H optional)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.) or Brass (Opt.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: Standard 1/8" and 1/4" NPT (other ports available).*

Housing: Grommet and 1/2" NPT conduit - many options available.*

Listings: Most valves are UL and CSA listed.*

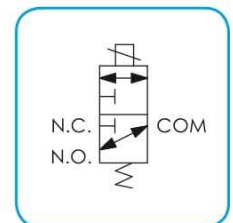
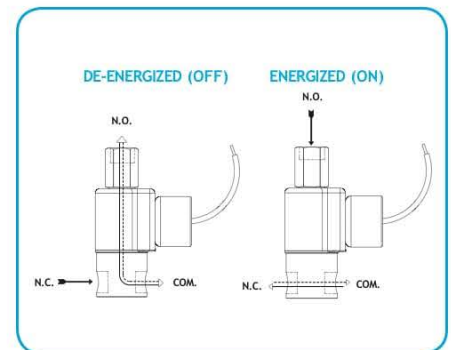
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

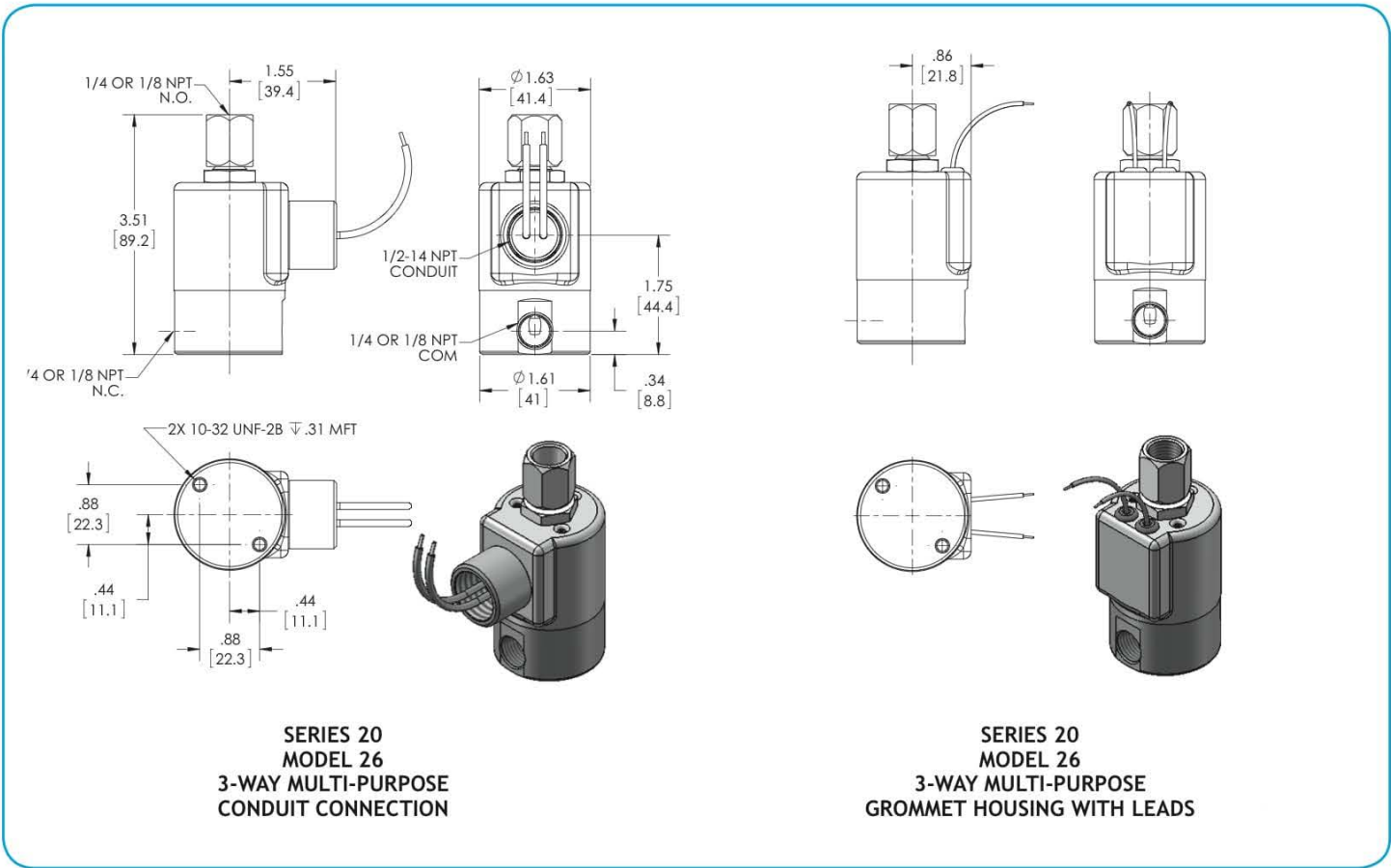
Valve Weight: Grommet Valve: 1.13 lb Conduit Valve: 1.19 lb

Repair Packs: See table on proceeding page.

Options: Alternate Port Locations, Metering, Manual Override, Alternate Elastomers, Spade Terminal Coil, European Style DIN, Explosion Proof and Magnetic Latching Coil

* Consult representative or factory for options and specifications.





VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		ORIFICE SIZE		CV FACTOR		GROMMET HOUSING		CONDUIT HOUSING	
AC	DC	N.C.	N.O.	N.C.	N.O.	1/8 NPT PORTS	1/4 NPT PORTS	1/8 NPT PORTS	1/4 NPT PORTS
400	400	1/32	1/32	.024	.024	26GG7XGM	26GG9ZGM	26GG7XCM	26GG9ZCM
150	150	3/64	3/64	.052	.052	26HH7XGM	26HH9ZGM	26HH7XCM	26HH9ZCM
100	100	1/16	1/16	.095	.095	26JJ7XGM	26JJ9ZGM	26JJ7XCM	26JJ9ZCM
75	75	3/32	3/32	.156	.156	26KK7XGM	26KK9ZGM	26KK7XCM	26KK9ZCM
35	35	1/8	1/8	.284	.201	26NN7XGM [^]	26NN9ZGM [^]	26NN7XCM [^]	26NN9ZCM [^]

[^] VALVES WITH 1/8 N.O. ORIFICE ARE UL LISTED ONLY

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (26JJ9ZGM 120/60) REPAIR PACK (K26JJX AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (O26JJ9DGM 120/60)

GENERAL PURPOSE VALVES



Series 70 >> Model 71

2-Way Normally Open Valve

Super valves that have ratings that formerly required valves of much greater size. Air, water, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, and many oils require special seal materials.

- **Largest direct acting (non-piloted) valve we manufacture.**
- **Large orifice.**
- **High flow.**
- **Will operate effectively at very low pressures or vacuum.**

Note: This valve also available as an operator. Refer to following page.

OPERATING CONDITIONS

Media: Air, water, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, and many oils require special seal materials. (Series 70 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 4000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 12 to 1150V AC 60 HZ. and 11 to 1035V AC 50 HZ. — 2.5 to 220V DC

Nominal Power: AC — 18.0 Watts DC — 16.0 Watts

Coil Construction: Non-molded Class A (Std.), Molded and Potted Class F or Class H (Opt.)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.) or Brass (Opt.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: Standard 1/4" NPT (other ports available).*

Housing: Grommet and 1/2" NPT conduit - many options available.*

Listings: Most valves are UL and CSA listed.*

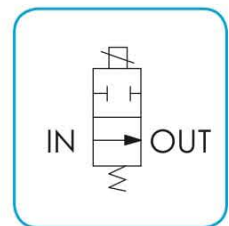
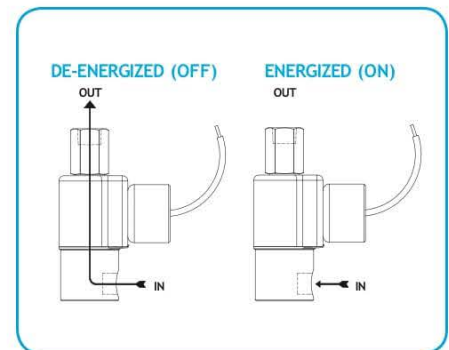
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

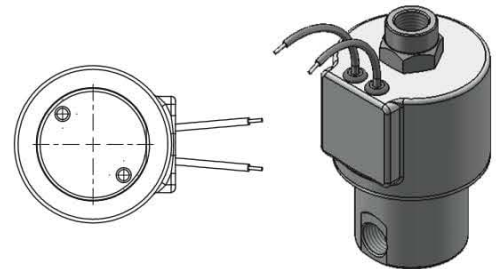
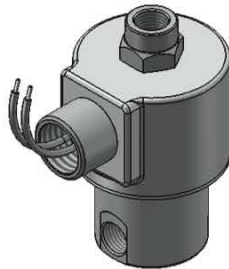
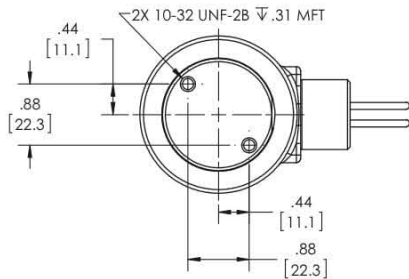
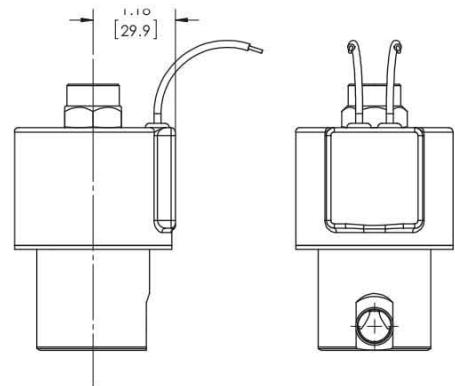
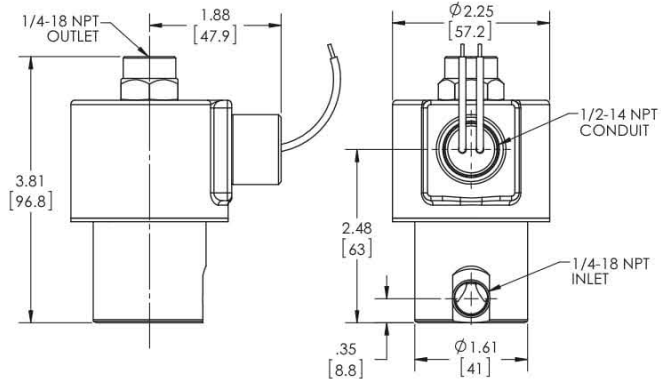
Valve Weight: Grommet Valve: 2.00 lb Conduit Valve: 2.06 lb

Repair Packs: See table on proceeding page.

Options: Alternate Port Locations, Metering and Alternate Elastomers

* Consult representative or factory for options and specifications.





**SERIES 70
MODEL 71 1/4-18 NPT
2WNO
CONDUIT CONNECTION**

**SERIES 70
MODEL 71 1/4-18 NPT
2WNO
GROMMET HOUSING WITH LEADS**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		ORIFICE SIZE N.O.	CV FACTOR N.O.	VALVE NUMBER	
AC	DC			GROMMET HOUSING 1/4 NPT PORTS	CONDUIT HOUSING 1/4 NPT PORTS
350	350	1/16	.09	71J9ZGM	71J9ZCM
250	250	3/32	.22	71K9ZGM	71K9ZCM
175	175	1/8	.35	71N9ZGM	71N9ZCM
125	125	5/32	.45	71O9ZGM	71O9ZCM
100	100	3/16	.50	71P9ZGM	71P9ZCM

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (71P9ZCM 120/60) REPAIR PACK (K71PDX AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (O71P9DCM 120/60)

GENERAL PURPOSE VALVES



Series 70 >> Model 72

2-Way Normally Closed Valve

Super valves that have ratings that formerly required valves of much greater size. Air, water, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, and many oils require special seal materials.

- **Largest direct acting (non-piloted) valve we manufacture.**
- **Large orifice.**
- **High flow.**
- **Will operate effectively at very low pressures or vacuum.**

Note: This valve also available as an operator. Refer to following page.

OPERATING CONDITIONS

Media: Air, water, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, and many oils require special seal materials. (Series 70 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 4000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 12 to 1150V AC 60 HZ. and 11 to 1035V AC 50 HZ. — 2.5 to 220V DC

Nominal Power: AC — 18.0 Watts DC — 16.0 Watts

Coil Construction: Molded (Std.), Non-molded Class A and potted Class F. (Class H optional)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.) or Brass (Opt.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: Standard 1/4" NPT (other ports available).*

Housing: Grommet and 1/2" NPT conduit - many options available.*

Listings: Most valves are UL and CSA listed.*

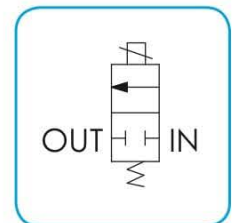
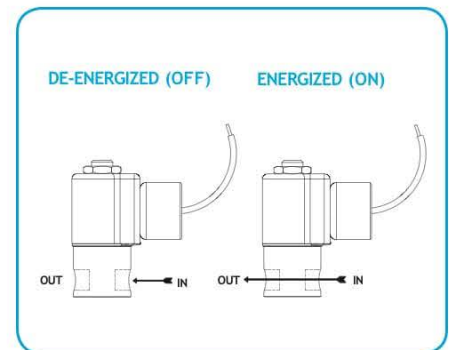
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

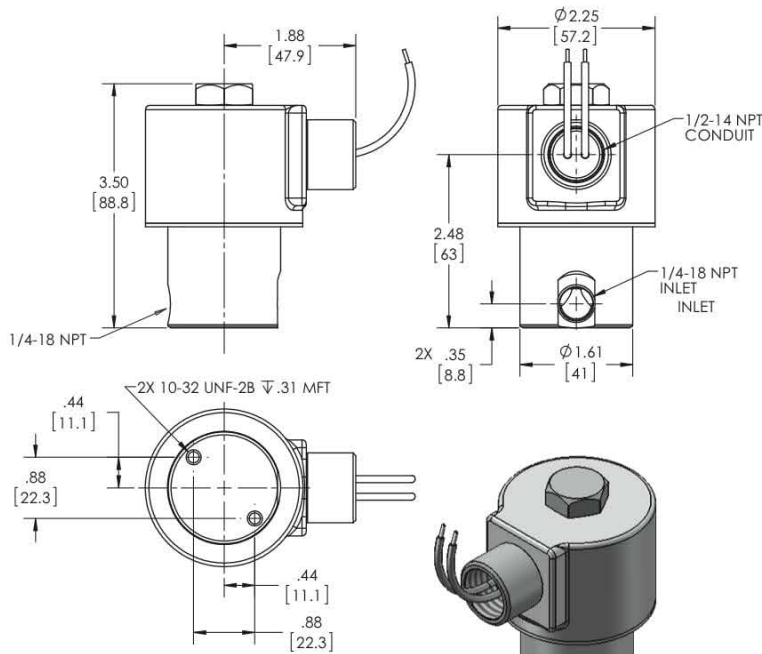
Valve Weight: Grommet Valve: 2.00 lb Conduit Valve: 2.06 lb

Repair Packs: See table on proceeding page.

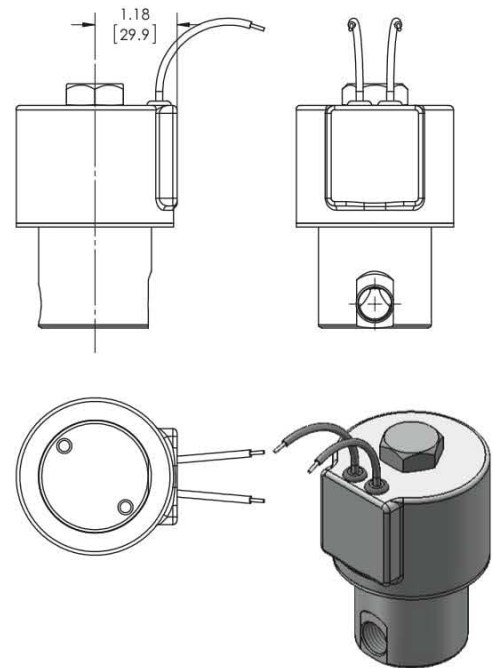
Options: Alternate Port Locations, Metering and Alternate Elastomers

* Consult representative or factory for options and specifications.





**SERIES 70
MODEL 72 1/4-18 NPT
2WNC
CONDUIT CONNECTION**



**SERIES 70
MODEL 72 1/4-18 NPT
2WNC
GROMMET HOUSING WITH LEADS**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		ORIFICE SIZE N.C.	CV FACTOR N.C.	VALVE NUMBER	
AC	DC			GROMMET HOUSING 1/4 NPT PORTS	CONDUIT HOUSING 1/4 NPT PORTS
500	500	3/32	.22	72K9DGM	72K9DCM
300	300	1/8	.35	72N9DGM	72N9DCM
225	225	5/32	.45	72O9DGM	72O9DCM
140	140	3/16	.55	72P9DGM	72P9DCM
100	100	1/4	.78	72R9DGM	72R9DCM

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (72R9DGM 120/60) REPAIR PACK (K72RDD AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (O72R9DGM 120/60)

GENERAL PURPOSE VALVES



Series 70 >> Model 73

3-Way Normally Closed – Exhaust to Atmosphere

Super valves that have ratings that formerly required valves of much greater size. Air, water, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, and many oils require special seal materials.

- **Largest direct acting (non-piloted) valve we manufacture.**
- **Large orifice.**
- **High flow.**
- **Will operate effectively at very low pressures or vacuum.**

Note: This valve also available as an operator. Refer to following page.

OPERATING CONDITIONS

Media: Air, water, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, and many oils require special seal materials. (Series 70 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 4000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 12 to 1150V AC 60 HZ. and 11 to 1035V AC 50 HZ. – 2.5 to 220V DC

Nominal Power: AC – 18.0 Watts DC – 16.0 Watts

Coil Construction: Molded (Std.), Non-molded Class A and potted Class F. (Class H optional)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.) or Brass (Opt.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: Standard 1/4" NPT (other ports available).*

Housing: Grommet and 1/2" NPT conduit - many options available.*

Listings: Most valves are UL and CSA listed.*

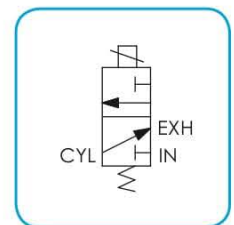
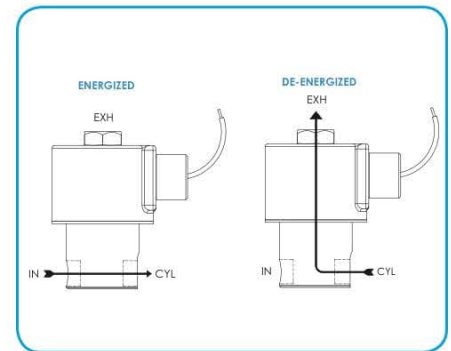
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

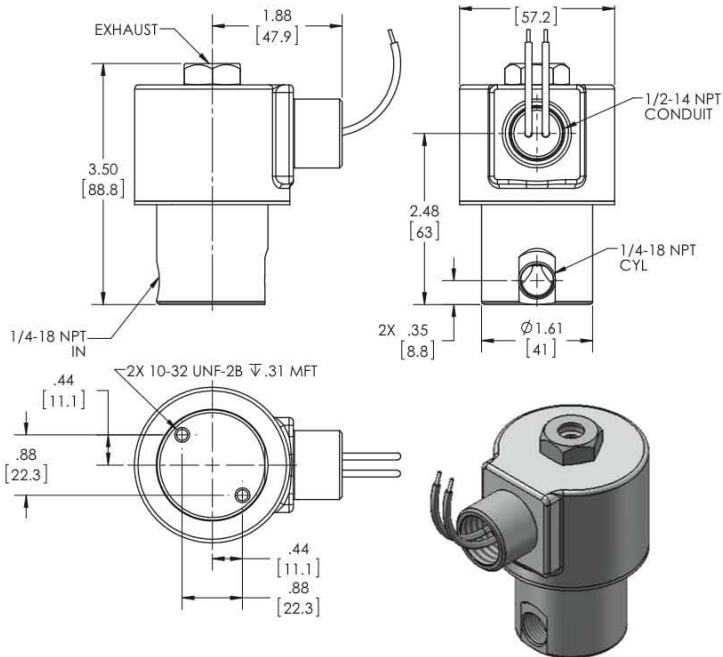
Valve Weight: Grommet Valve: 2.00 lb Conduit Valve: 2.06 lb

Repair Packs: See table on proceeding page.

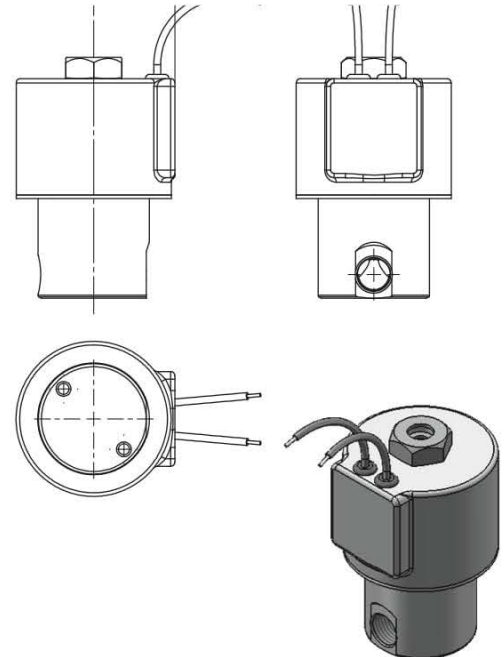
Options: Alternate Port Locations, Metering and Alternate Elastomers

* Consult representative or factory for options and specifications.





**SERIES 70
MODEL 73 1/4-18 NPT
3WNC EXHAUST TO ATMOSPHERE
CONDUIT CONNECTION**



**SERIES 70
MODEL 73 1/4-18 NPT
3WNC EXHAUST TO ATMOSPHERE
GROMMET HOUSING WITH LEADS**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		ORIFICE SIZE		CV FACTOR		VALVE NUMBER	
AC	DC	N.C.	N.O.	N.C.	N.O.	GROMMET HOUSING 1/4 NPT PORTS	CONDUIT HOUSING 1/4 NPT PORTS
350	350	1/16	1/16	.09	.09	73JJ9DGM	73JJ9DCM
250	250	3/32	3/32	.22	.22	73KK9DGM	73KK9DCM
175	175	1/8	1/8	.35	.35	73NN9DGM	73NN9DCM
125	125	5/32	5/32	.45	.45	73OO9DGM	73OO9DCM
100	100	3/16	3/16	.50	.50	73PP9DGM	73PP9DCM
50	50	1/4	3/16	.78	.50	73RP9DGM	73RP9DCM

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (73OO9DGM 120/60) REPAIR PACK (K73OOD AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (O73OO9DGM 120/60)

GENERAL PURPOSE VALVES



Series 70 >> Model 73

3-Way Normally Closed – Piped Exhaust

Super valves that have ratings that formerly required valves of much greater size. Air, water, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, and many oils require special seal materials.

- **Largest direct acting (non-piloted) valve we manufacture.**
- **Large orifice.**
- **High flow.**
- **Will operate effectively at very low pressures or vacuum.**

Note: This valve also available as an operator. Refer to following page.

OPERATING CONDITIONS

Media: Air, water, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, and many oils require special seal materials. (Series 70 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 4000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 12 to 1150V AC 60 HZ. and 11 to 1035V AC 50 HZ. – 2.5 to 220V DC

Nominal Power: AC – 18.0 Watts DC – 16.0 Watts

Coil Construction: Molded (Std.), Non-molded Class A and potted Class F. (Class H optional)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.) or Brass (Opt.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: Standard 1/4" NPT (other ports available).*

Housing: Grommet and 1/2" NPT conduit - many options available.*

Listings: Most valves are UL and CSA listed.*

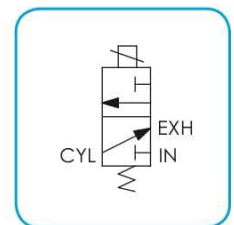
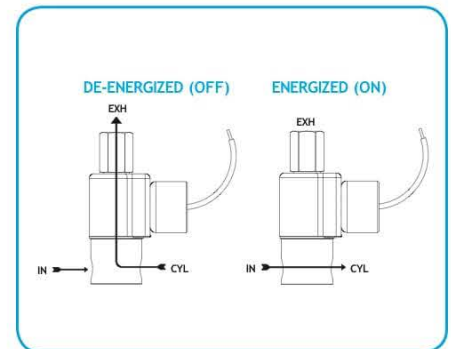
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

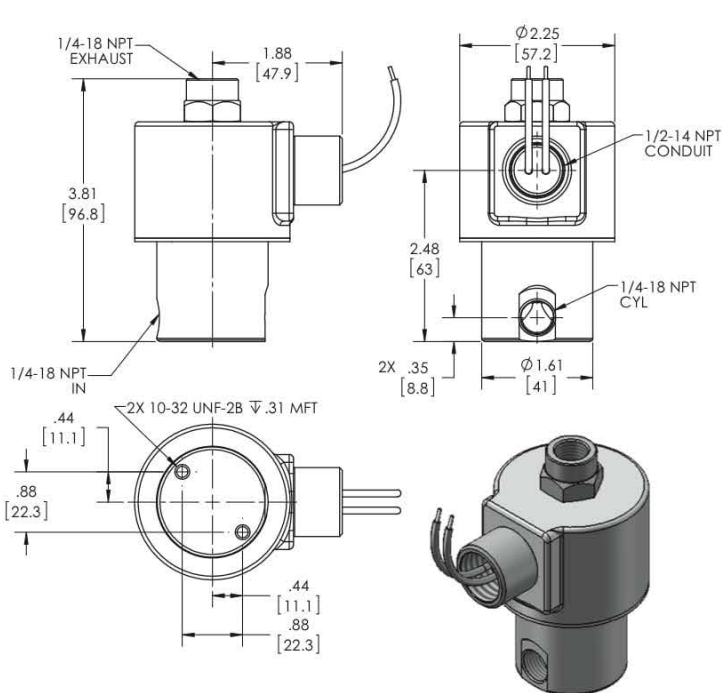
Valve Weight: Grommet Valve: 2.00 lb Conduit Valve: 2.06 lb

Repair Packs: See table on proceeding page.

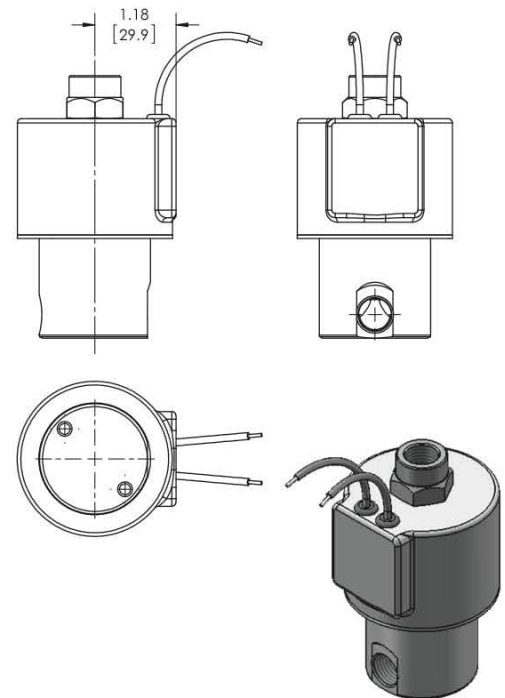
Options: Alternate Port Locations, Metering and Alternate Elastomers

* Consult representative or factory for options and specifications.





**SERIES 70
MODEL 73 1/4-18 NPT
3WNC PIPED EXHAUST
CONDUIT CONNECTION**



**SERIES 70
MODEL 73 1/4-18 NPT
3WNC PIPED EXHAUST
GROMMET HOUSING WITH LEADS**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		ORIFICE SIZE		CV FACTOR		VALVE NUMBER	
AC	DC	N.C.	N.O.	N.C.	N.O.	GROMMET HOUSING 1/4 NPT PORTS	CONDUIT HOUSING 1/4 NPT PORTS
350	350	1/16	1/16	.09	.09	73JJ9ZGM	73JJ9ZCM
250	250	3/32	3/32	.22	.22	73KK9ZGM	73KK9ZCM
175	175	1/8	1/8	.35	.35	73NN9ZGM	73NN9ZCM
125	125	5/32	5/32	.45	.45	73OO9ZGM	73OO9ZCM
100	100	3/16	3/16	.50	.50	73PP9ZGM	73PP9ZCM
50	50	1/4	3/16	.78	.50	73RP9ZGM	73RP9ZCM

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (73OO9ZGM 120/60) REPAIR PACK (K73OOX AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (O73OO9DGM 120/60)

GENERAL PURPOSE VALVES



Series 70 >> Model 74

3-Way Normally Open Valve

Super valves that have ratings that formerly required valves of much greater size. Air, water, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, and many oils require special seal materials.

- **Largest direct acting (non-piloted) valve we manufacture.**
- **Large orifice.**
- **High flow.**
- **Will operate effectively at very low pressures or vacuum.**

Note: This valve also available as an operator. Refer to following page.

OPERATING CONDITIONS

Media: Air, water, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, and many oils require special seal materials. (Series 70 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 4000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 12 to 1150V AC 60 HZ. and 11 to 1035V AC 50 HZ. — 2.5 to 220V DC

Nominal Power: AC — 18.0 Watts DC — 16.0 Watts

Coil Construction: Molded (Std.), Non-molded Class A and potted Class F. (Class H optional)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.) or Brass (Opt.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: Standard 1/4" NPT (other ports available).*

Housing: Grommet and 1/2" NPT conduit - many options available.*

Listings: Most valves are UL and CSA listed.*

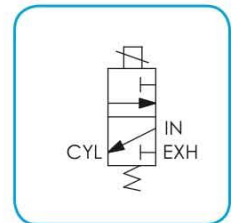
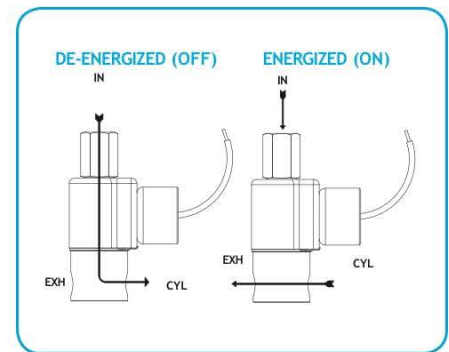
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

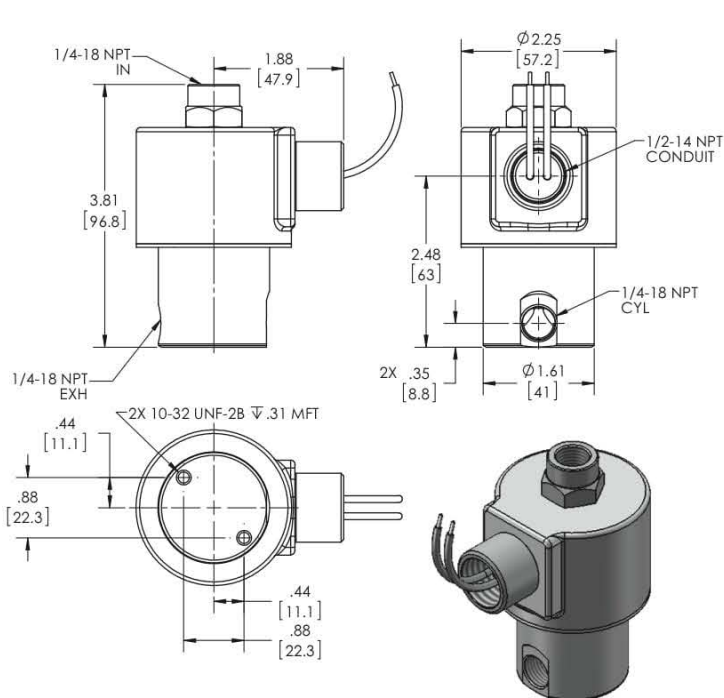
Valve Weight: Grommet Valve: 2.00 lb Conduit Valve: 2.06 lb

Repair Packs: See table on proceeding page.

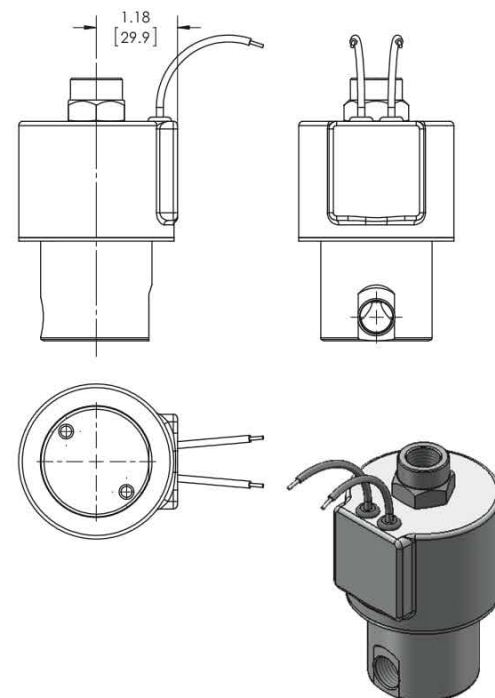
Options: Alternate Port Locations, Metering and Alternate Elastomers

* Consult representative or factory for options and specifications.





**SERIES 70
MODEL 74 1/4-18 NPT
3WNO
CONDUIT CONNECTION**



**SERIES 70
MODEL 74 1/4-18 NPT
3WNO
GROMMET HOUSING WITH LEADS**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		ORIFICE SIZE		CV FACTOR		VALVE NUMBER	
AC	DC	N.O.	N.C.	N.O.	N.C.	GROMMET HOUSING 1/4 NPT PORTS	CONDUIT HOUSING 1/4 NPT PORTS
350	350	1/16	1/16	.09	.09	74JJ9ZGM	74JJ9ZCM
250	250	3/32	3/32	.22	.22	74KK9ZGM	74KK9ZCM
175	175	1/8	1/8	.35	.35	74NN9ZGM	74NN9ZCM
125	125	5/32	5/32	.45	.45	74OO9ZGM	74OO9ZCM
100	100	3/16	3/16	.50	.50	74PP9ZGM	74PP9ZCM

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (74PP9ZGM 120/60) REPAIR PACK (K74PPX AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (O74PP9DGM 120/60)

GENERAL PURPOSE VALVES



Series 70 >> Model 75

3-Way Directional Control Valve

Super valves that have ratings that formerly required valves of much greater size. Air, water, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, and many oils require special seal materials.

- **Largest direct acting (non-piloted) valve we manufacture.**
- **Large orifice.**
- **High flow.**
- **Will operate effectively at very low pressures or vacuum.**

Note: This valve also available as an operator. Refer to following page.

OPERATING CONDITIONS

Media: Air, water, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, and many oils require special seal materials. (Series 70 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 4000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 12 to 1150V AC 60 HZ. and 11 to 1035V AC 50 HZ. — 2.5 to 220V DC

Nominal Power: AC — 18.0 Watts DC — 16.0 Watts

Coil Construction: Molded (Std.), Non-molded Class A and potted Class F. (Class H optional)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.) or Brass (Opt.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: Standard 1/4" NPT (other ports available).*

Housing: Grommet and 1/2" NPT conduit - many options available.*

Listings: Most valves are UL and CSA listed.*

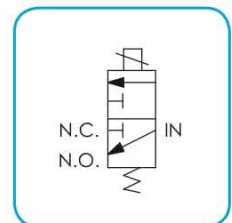
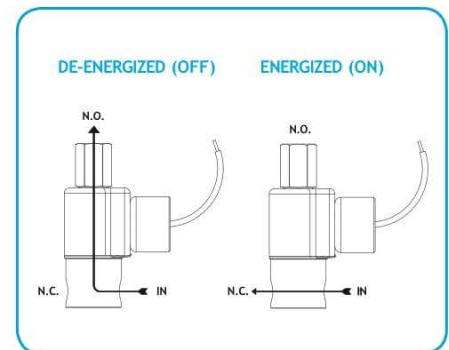
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

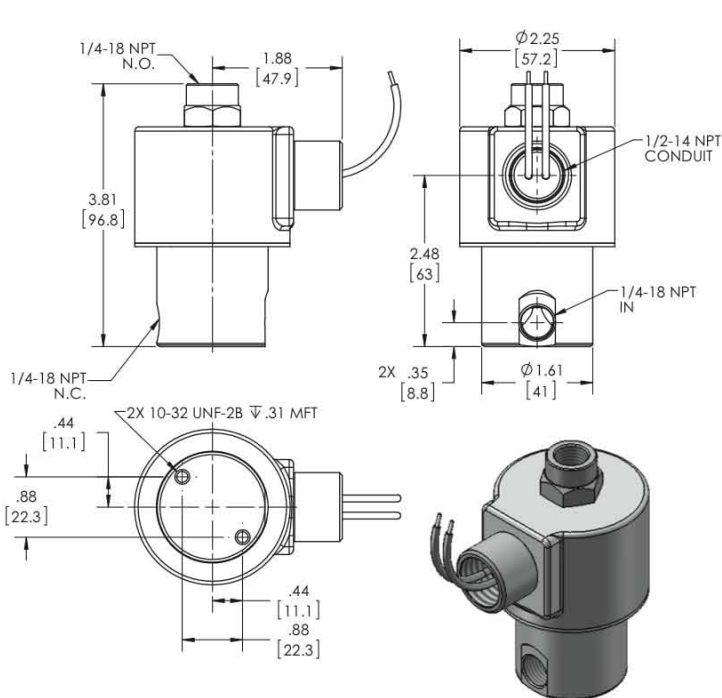
Valve Weight: Grommet Valve: 2.00 lb Conduit Valve: 2.06 lb

Repair Packs: See table on proceeding page.

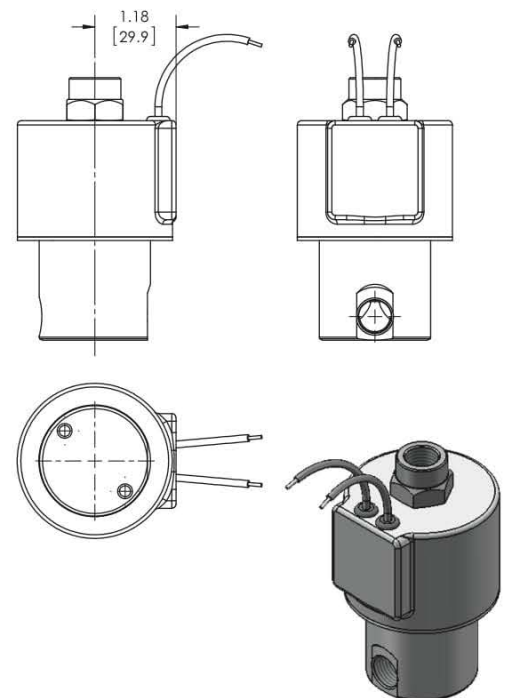
Options: Alternate Port Locations, Metering and Alternate Elastomers

* Consult representative or factory for options and specifications.





**SERIES 70
MODEL 75 1/4-18 NPT
3-WAY DIRECTIONAL CONTROL
CONDUIT CONNECTION**



**SERIES 70
MODEL 75 1/4-18 NPT
3-WAY DIRECTIONAL CONTROL
GROMMET HOUSING WITH LEADS**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		ORIFICE SIZE		CV FACTOR		VALVE NUMBER	
AC	DC	N.C.	N.O.	N.C.	N.O.	GROMMET HOUSING 1/4 NPT PORTS	CONDUIT HOUSING 1/4 NPT PORTS
350	350	1/16	1/16	.09	.09	75JJ9ZGM	75JJ9ZCM
250	250	3/32	3/32	.22	.22	75KK9ZGM	75KK9ZCM
175	175	1/8	1/8	.35	.35	75NN9ZGM	75NN9ZCM
125	125	5/32	5/32	.45	.45	75OO9ZGM	75OO9ZCM
100	100	3/16	3/16	.50	.50	75PP9ZGM	75PP9ZCM

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (75OO9ZGM 120/60) REPAIR PACK (K75OOX AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (O75OO9DGM 120/60)

GENERAL PURPOSE VALVES



Series 70 >> Model 76

3-Way Multi-Purpose Valve

Super valves that have ratings that formerly required valves of much greater size. Air, water, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, and many oils require special seal materials.

- Largest direct acting (non-piloted) valve we manufacture.
- Large orifice.
- High flow.
- Will operate effectively at very low pressures or vacuum.

Note: This valve also available as an operator. Refer to following page.

OPERATING CONDITIONS

Media: Air, water, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, and many oils require special seal materials. (Series 70 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 4000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 12 to 1150V AC 60 HZ. and 11 to 1035V AC 50 HZ. — 2.5 to 220V DC

Nominal Power: AC — 18.0 Watts DC — 16.0 Watts

Coil Construction: Molded (Std.), Non-molded Class A and potted Class F. (Class H optional)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.) or Brass (Opt.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: Standard 1/4" NPT (other ports available).*

Housing: Grommet and 1/2" NPT conduit - many options available.*

Listings: Most valves are UL and CSA listed.*

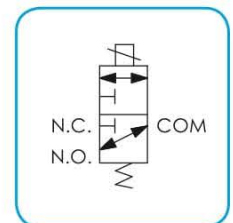
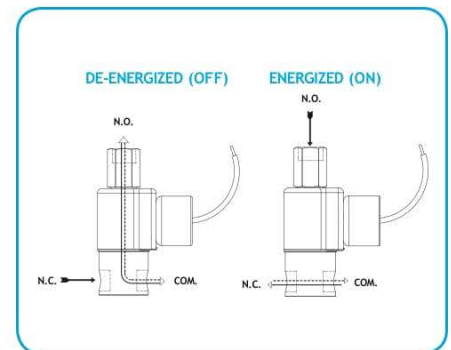
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

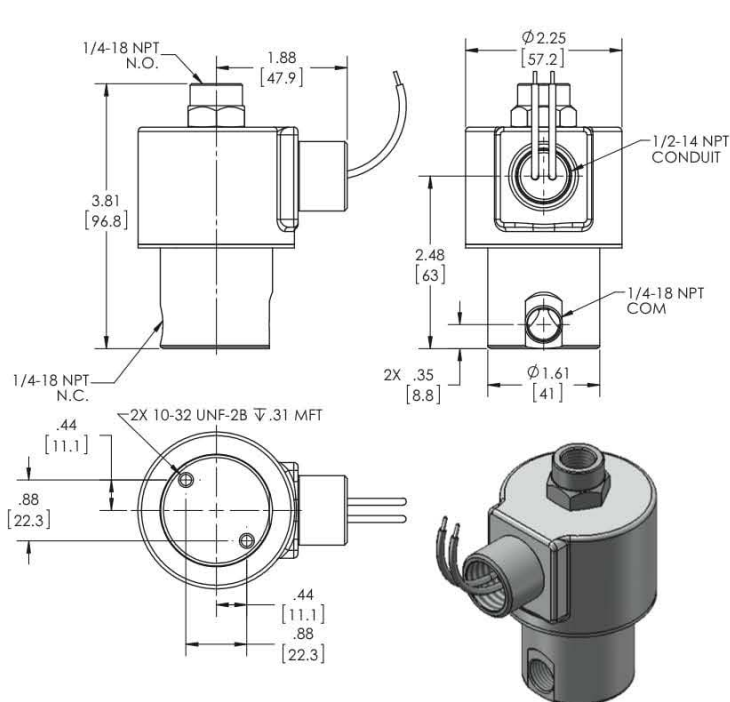
Valve Weight: Grommet Valve: 2.00 lb Conduit Valve: 2.06 lb

Repair Packs: See table on proceeding page.

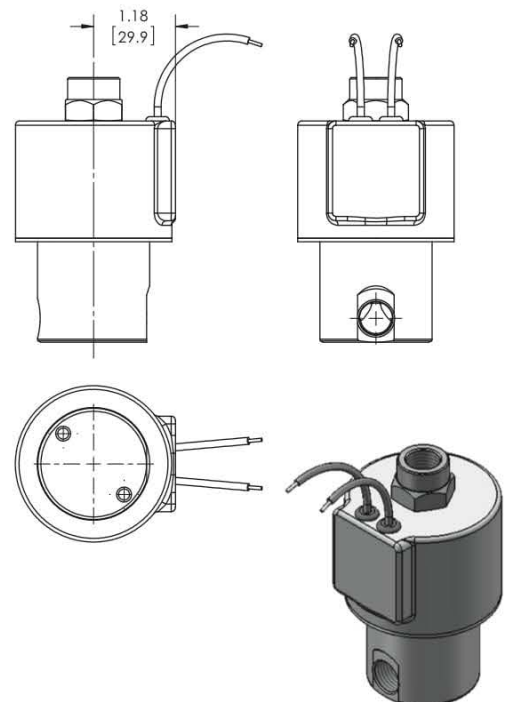
Options: Alternate Port Locations, Metering and Alternate Elastomers

* Consult representative or factory for options and specifications.





**SERIES 70
MODEL 76 1/4-18 NPT
3-WAY MULTI-PURPOSE
CONDUIT CONNECTION**



**SERIES 70
MODEL 76 1/4-18 NPT
3-WAY MULTI-PURPOSE
GROMMET HOUSING WITH LEADS**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		ORIFICE SIZE		CV FACTOR		VALVE NUMBER	
AC	DC	N.C.	N.O.	N.C.	N.O.	GROMMET HOUSING 1/4 NPT PORTS	CONDUIT HOUSING 1/4 NPT PORTS
225	225	1/16	1/16	.09	.09	76JJ9ZGM	76JJ9ZCM
150	150	3/32	3/32	.22	.22	76KK9ZGM	76KK9ZCM
100	100	1/8	1/8	.35	.35	76NN9ZGM	76NN9ZCM
75	75	5/32	5/32	.45	.45	76OO9ZGM	76OO9ZCM
60	60	3/16	3/16	.50	.50	76PP9ZGM	76PP9ZCM

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (76KK9ZGM 120/60) REPAIR PACK (K76KKX AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (O76KK9DGM 120/60)



Series 20 >> Model H21

High Pressure – 2-Way Normally Open Valve

This valve uses a pin style seal. The pin is guided into the orifice. For use on air and other non-corrosive gases, water and oil.

- Kel-F pin sealing element.
- Orifice guides the sealing pin for perfect alignment.
- Simple construction...only three moving parts.

Note: This valve also available as an operator. Refer to following page.

OPERATING CONDITIONS

Media: Air and other non-corrosive gasses, water and oil.

Filtration: Down to 60 microns or less is recommended.

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 10,000 PSI

Leakage: Bubble tight

ELECTRICAL CHARACTERISTICS

Coil Voltage: 1.8 to 265V DC

Nominal Power: DC – 9.5 Watts

Coil Construction: Molded (Std.), Non-molded Class A and potted Class F. (Class H optional)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM with gas media

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel

Internal Components: Stainless Steel

Sealing Pin: Kel-F (Std.), Delrin®, Teflon®, Nylon, PEEK, Radel®, Ultem®, 303 Stainless Steel (Opt.)

Orifice Diameter: See table on proceeding page.

Porting: 1/8" and 1/4" NPT (other ports available).*

Housing: Grommet and 1/2" NPT conduit

Listings: Most valves are UL and CSA listed.*

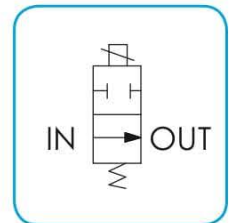
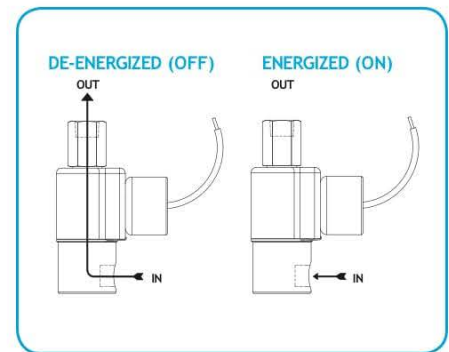
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

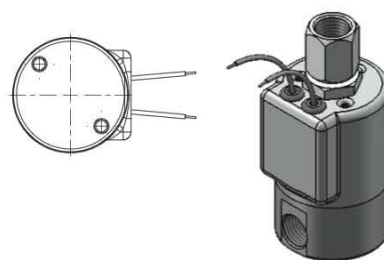
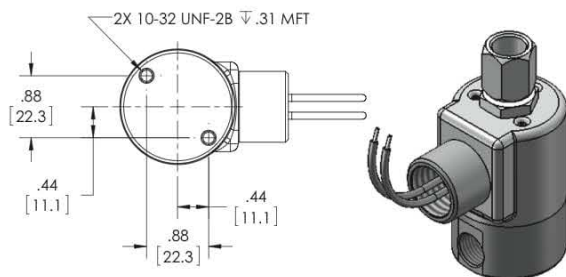
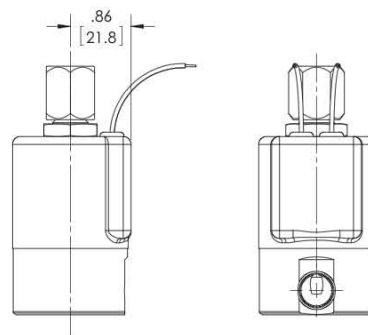
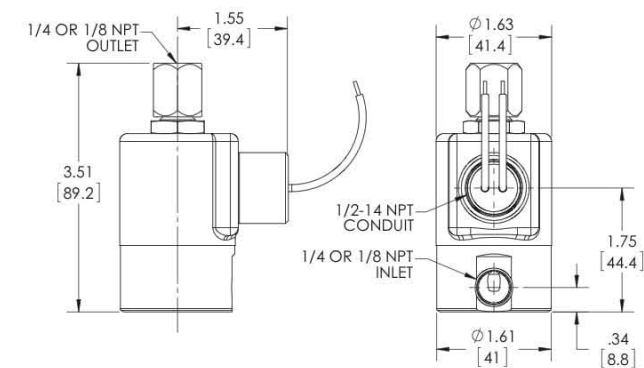
Valve Weight: 1.19 lbs

Repair Packs: See table on proceeding page.

Options: Alternate Elastomers, Alternate Sealing Pin Materials, Spade Terminal Coil, and European Style DIN*

* Consult representative or factory for options and specifications.





**SERIES 20
MODEL H21
2WNO
CONDUIT CONNECTION**

**SERIES 20
MODEL H21
2WNO
GROMMET HOUSING WITH LEADS**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF. DC	ORIFICE SIZE N.O.	CV FACTOR N.O.	VALVE NUMBER			
			GROMMET HOUSING		CONDUIT HOUSING	
			1/8 NPT PORTS	1/4 NPT PORTS	1/8 NPT PORTS	1/4 NPT PORTS
2000*	.6mm	.010	H21M7XGM	H21M9ZGM	H21M7XCM	H21M9ZCM

* FKM seals not recommended for pressure above 500 psi.

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (H21M7XGV 120/60) REPAIR PACK (KH21MX AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (QH21M7DGV 120/60)



Note: This valve also available as an operator. Refer to following page.

Series 20 >> Model H22

High Pressure – 2-Way Normally Closed Valve

When the valve coil is energized, the plunger is drawn towards the sleeve end stop. The plunger is allowed to accelerate freely for a short distance before it makes contact with the shoulder of the sealing pin. Upon contact it imparts considerable force on the pin causing it to lift the seat. A return spring provides the return force, directly on the pin, to seal the orifice when the coil is de-energized. The valve must be mounted 30 degrees of vertical and is for use on air and other non-corrosive gases, water and oil.

- Kel-F pin sealing element.
- Orifice guides the sealing pin for perfect alignment.
- Simple construction...only three moving parts.

OPERATING CONDITIONS

Media: Air and other non-corrosive gases, water and oil.

Filtration: Down to 60 microns or less is recommended.

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 10,000 PSI

Leakage: Bubbletight (with polymer sealing pins)

ELECTRICAL CHARACTERISTICS

Coil Voltage: 6 to 825V AC 60 HZ. and 5 to 720V AC 50 HZ. – 1.8 to 265V DC

Nominal Power: AC – 7.7 Watts DC – 9.5 Watts

Coil Construction: Molded (Std.), Non-molded Class A and Potted Class F, (Class H optional)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM with gas media

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.) or Brass (Opt.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Sealing Pin: Kel-F (Std.), Delrin®, Teflon®, Nylon, PEEK, Radel®, Ultem®, 303 Stainless Steel (Opt.)

Orifice Diameter: See table on proceeding page.

Porting: 1/8" NPT and 1/4" NPT (other ports available).*

Housing: Grommet and 1/2" NPT conduit - many options available.*

Mounting: Must be mounted within 30° of vertical.

Listings: Most valves are UL and CSA listed.*

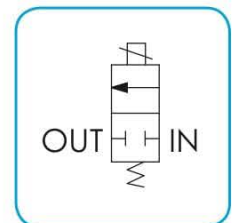
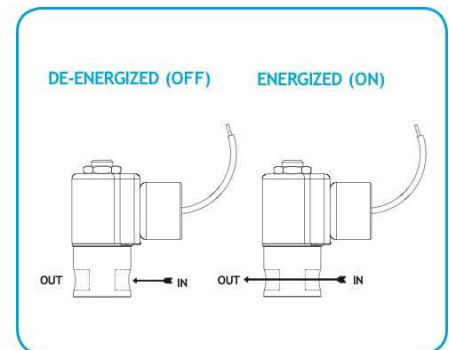
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

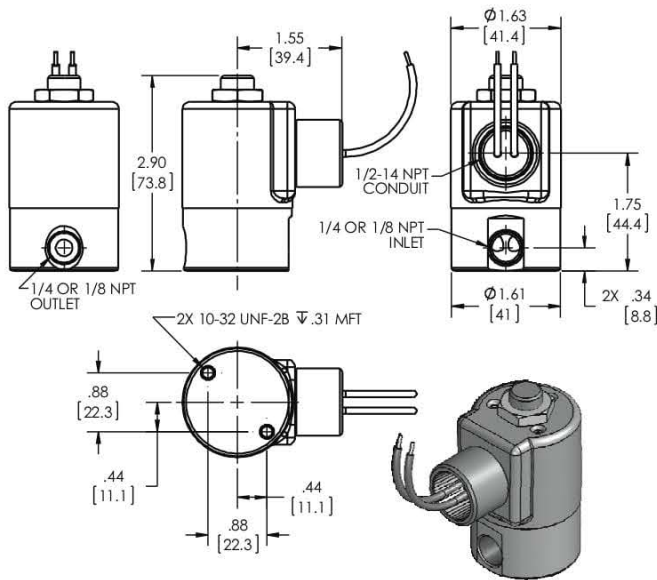
Valve Weight: Grommet Valve: 1.13 lbs, Conduit Valve: 1.19 lbs

Repair Packs: See table on proceeding page.

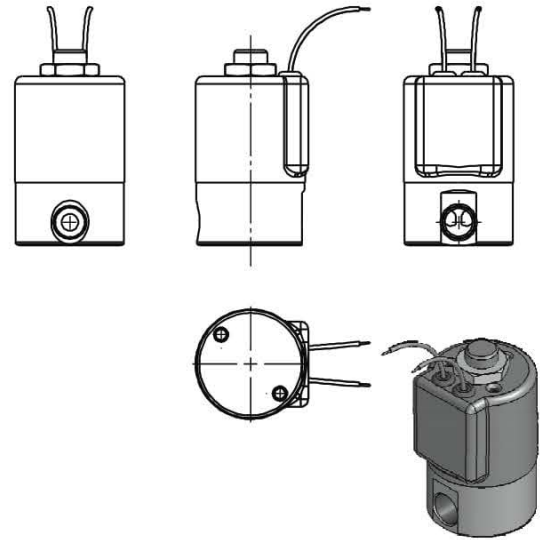
Options: Alternate Port Locations, Alternate Elastomers, Alternate Sealing Pin Materials, Spade Terminal Coil, and European Style DIN Coil*

* Consult representative or factory for options and specifications.





**SERIES 20
MODEL H22
2WNC
CONDUIT CONNECTION**



**SERIES 20
MODEL H22
2WNC
GROMMET HOUSING WITH LEADS**

VALVE SPECIFICATIONS

GAS PRESSURE RATINGS				VALVE NUMBER			
AC	DC	ORIFICE SIZE	CV FACTOR	GROMMET HOUSING		CONDUIT HOUSING	
		N.C.	N.C.	1/8 NPT PORTS	1/4 NPT PORTS	1/8 NPT PORTS	1/4 NPT PORTS
5000*	5000*	.025	.010	H22M7DGM	H22M9DGM	H22M7DCM	H22M9DCM
3000*	3000*	1/32	.022	H22G7DGM	H22G9DGM	H22G7DCM	H22G9DCM
2500*	1500*	3/64	.041	H22H7DGMG	H22H9DGMG	H22H7DCMG	H22H9DCMG
1750*	500	1/16	.065	H22J7DGMG	H22J9DGMG	H22J7DCMG	H22J9DCMG
650*	100	3/32	.100	H22K7DGMG	H22K9DGMG	H22K7DCMG	H22K9DCMG

LIQUID PRESSURE RATINGS				VALVE NUMBER			
AC	DC	ORIFICE SIZE	CV FACTOR	GROMMET HOUSING		CONDUIT HOUSING	
		N.C.	N.C.	1/8 NPT PORTS	1/4 NPT PORTS	1/8 NPT PORTS	1/4 NPT PORTS
5000*	5000*	.025	.010	H22M7DGM	H22M9DGM	H22M7DCM	H22M9DCM
3000*	3000*	1/32	.022	H22G7DGM	H22G9DGM	H22G7DCM	H22G9DCM
1500*	1500*	3/64	.041	H22H7DGML	H22H9DGML	H22H7DCML	H22H9DCML
1000*	500	1/16	.065	H22J7DGML	H22J9DGML	H22J7DCML	H22J9DCML
300	100	3/32	.100	H22K7DGML	H22K9DGML	H22K7DCML	H22K9DCML

* FKM seals not recommended for pressure above 500 psi.

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (H22J7DGMG 120/60) REPAIR PACK (KH22JD AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (QH22J7DGMG 120/60)



Series 20 >> Model 22T

Large Orifice, Non-Piloted – 2-Way Normally Closed Valve

Super valves that have ratings that formerly required valves of much greater size. They have higher flow at low pressures and have quick media fill or dump. For use with air and other fluids, compatible with Buna seals. Hot water, steam, gasoline and many oils require special seal materials.

- Large orifice in a smaller package.
- High flow at low pressures.
- Gravity feed lubrication with quick media fill or dump.

Note: This valve also available as an operator. Refer to following page.

OPERATING CONDITIONS

Media: Air and other fluids, compatible with Buna seals. Hot water, steam, gasoline and many oils require special seal materials. (Series 20 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5,000 PSI

Leakage: Bubble tight

Vacuum: To 15" Mercury*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 6 to 825V AC 60 HZ. and 5 to 720V AC 50 HZ.

Nominal Power: AC – 7.7 Watts

Coil Construction: Molded (Std.), Non-molded Class A and Potted Class F, (Class H optional)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM with gas media

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: 3/8" NPT

Porting: 3/8" NPT

Housing: Grommet and 1/2" NPT conduit - many options available*

Listings: Most valves are UL and CSA listed.*

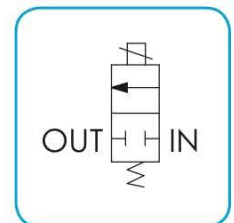
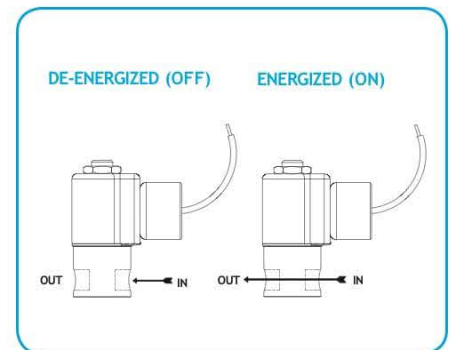
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

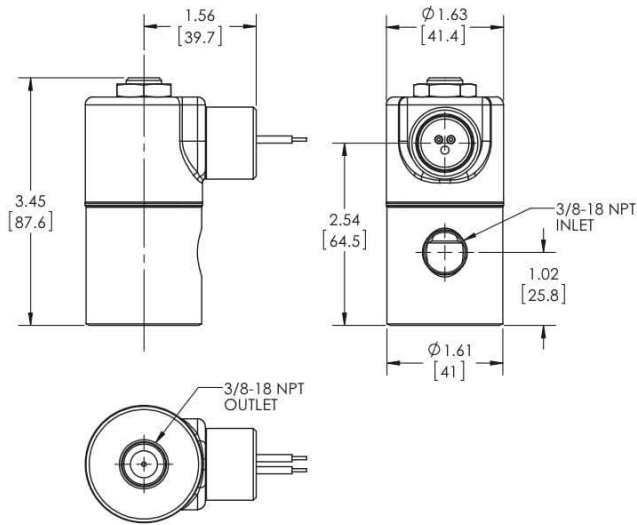
Valve Weight: 1.38 lbs

Repair Packs: See table on proceeding page.

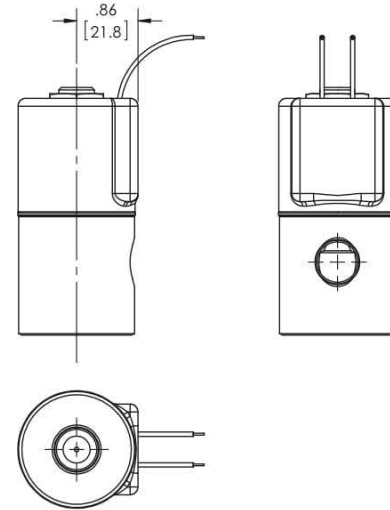
Options: Alternate Elastomers, Spade Terminal Coil, European Style DIN Coil and Explosion Proof*

* Consult representative or factory for options and specifications.





**SERIES 20
MODEL 22T
2WNC
CONDUIT CONNECTION**



**SERIES 20
MODEL H22T
2WNC
GROMMET HOUSING WITH LEADS**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF. AC	ORIFICE SIZE	CV FACTOR	VALVE NUMBER	
			GROMMET HOUSING	CONDUIT HOUSING
10	3/8	2.0	22T1DGM	22T1DCM

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (22T1DGV 120/60) REPAIR PACK (K22TD AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (O22T1DGV 120/60)



Note: This valve also available as an operator. Refer to following page.

Series 20 >> Model H23

High Pressure – 3-Way Normally Closed Valve

PeterPaul's model H23 has a dual operator valve that allows the same media control as a three way normally closed valve but at much higher pressure ratings than previously available. To function as a 3-way normally closed valve, operators must be alternately energized and de-energized. Pressure applied to the "IN" port must always be equal to or greater than the pressure in "CYL" port. Air and other non-corrosive gases, water and oil.

- Precision stainless free floating plunger.
- Kel-F pin sealing element.
- Orifice guides the sealing pin for near perfect alignment.

OPERATING CONDITIONS

Filtration: Down to 60 microns or less is recommended.

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on preceeding page.

Burst Pressure: 10,000 PSI

Leakage: Bubbletight (with polymer sealing pins)

ELECTRICAL CHARACTERISTICS

Coil Voltage: 6 to 825V AC 60 HZ. and 5 to 720V AC 50 HZ.— 1.8 to 265V DC

Nominal Power: AC – 7.3 Watts DC – 9.5 Watts (Per Operator)

Coil Construction: Non-Molded Class A (Std.), Molded and Potted Class F or Class H (Opt.)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM with gas media

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: 300 Series Stainless Steel

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Sealing Pin: Kel-F (Std.), Delrin®, Teflon®, Nylon, PEEK, Radel®, Ultem®, 303 Stainless Steel (Opt.)

Orifice Diameter: See table on preceeding page.

Porting: 1/4" NPT

Housing: Grommet with 1/2" NPT conduit (many options available).

Mounting: Must be mounted within 30° of vertical.

Listings: Most valves are UL listed and certified.

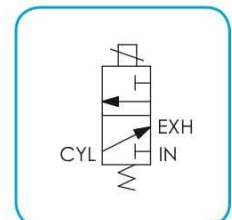
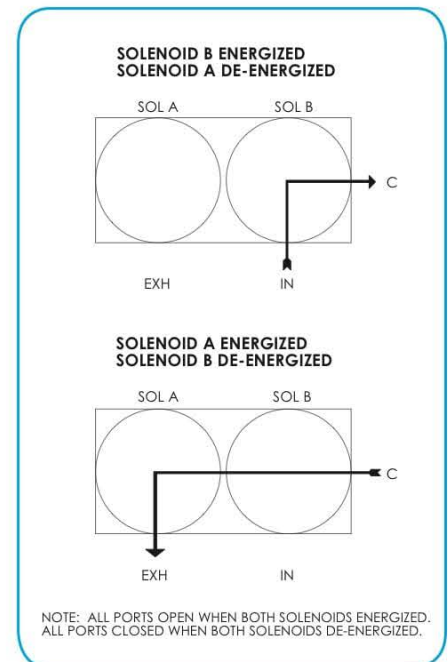
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

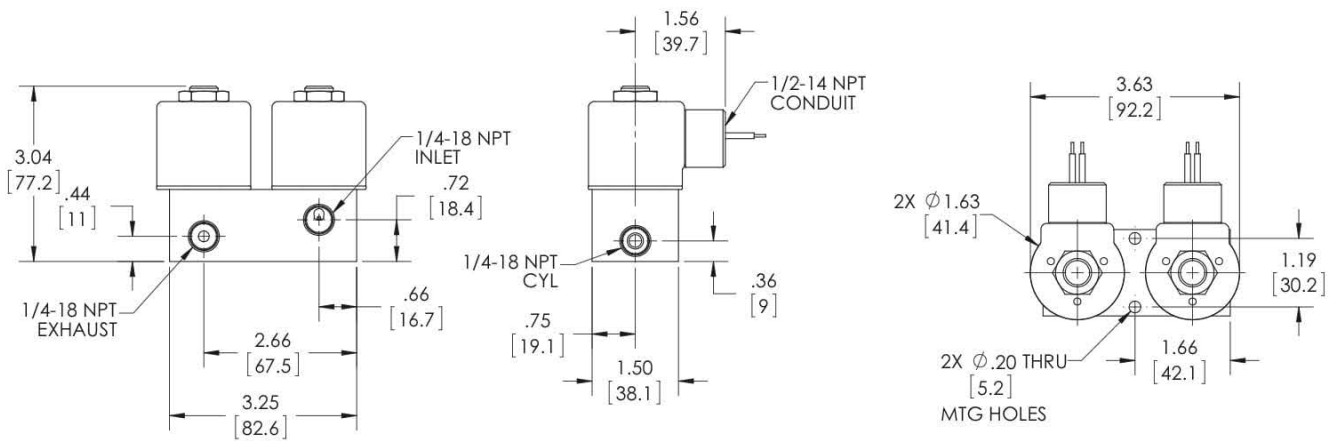
Valve Weight: 3.63 lbs

Repair Packs: See table on preceeding page.

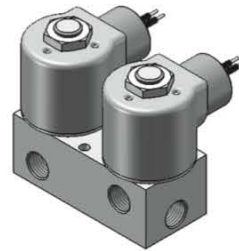
Options: Alternate Sealing Pin Materials and Alternate Elastomers*

* Consult representative or factory for options and specifications.





**SERIES 20
MODEL H23
3WNC
HIGH PRESSURE**



VALVE SPECIFICATIONS

GAS PRESSURE RATINGS		ORIFICE SIZE	CV FACTOR	VALVE NUMBER 1/4 NPT PORTS
AC	DC			
3000*	3000*	1/32	.022	H23GG19DCV
2500*	1500*	3/64	.041	H23HH19DCVG
1750*	500	1/16	.065	H23JJ19DCVG
650*	100	3/32	.100	H23KK19DCVG

LIQUID PRESSURE RATINGS		ORIFICE SIZE	CV FACTOR	VALVE NUMBER 1/4 NPT PORTS
AC	DC			
3000*	3000*	1/32	.022	EH23GG19DCV
1500*	1500*	3/64	.041	EH23HH19DCVL
1000*	500	1/16	.065	EH23JJ19DCVL
300	100	3/32	.100	EH23KK19DCVL

* FKM seals not recommended for pressure above 500 psi.

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (H23JJ19DCV 120/60) REPAIR PACK (KH23JJ AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (OH23JJ19DCV 120/60)



Note: This valve also available as an operator. Refer to following page.

Series 20 >> Model H24

High Pressure – 3-Way Normally Open Valve

Using the heart of the highly successful model H22, Peter Paul Electronics has a valve that allows the same media control as a three way normally open valve but at much higher pressure ratings than previously available. Pressure applied to the “IN” port must always be equal to or greater than the pressure in “CYL” port. Air and other non-corrosive gases, water and oil.

- Made for higher pressure ratings.
- Precision stainless steel plunger.
- Kel-F pin and elastomeric sealing elements.
- Orifice guides the sealing pin for near perfect alignment.
- Simple construction...only three moving parts.

OPERATING CONDITIONS

Media: Air and other non-corrosive gases, water and oil.

Filtration: Down to 60 microns or less is recommended.

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 6,000 PSI

Leakage: Bubble tight

ELECTRICAL CHARACTERISTICS

Coil Voltage: 1.8 to 265V DC

Nominal Power: DC – 9.5 Watts

Coil Construction: Molded (Std.), Non-molded Class A and Potted Class F, (Class H optional)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM with gas media

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.)

Internal Components: Stainless Steel

Sealing Pin: Kel-F and urethane dynamic seals. Buna static seal. Many other options available.*

Orifice Diameter: See table on proceeding page.

Porting: 1/8" and 1/4" NPT (other ports available).*

Mounting: Must be mounted within 30° of vertical.

Housing: Grommet and 1/2" NPT conduit - many options available.*

Listings: Most valves are UL and CSA listed.*

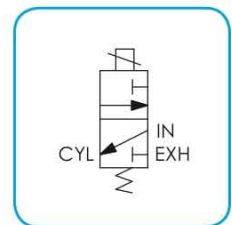
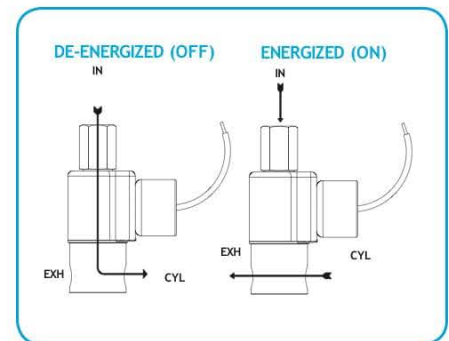
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

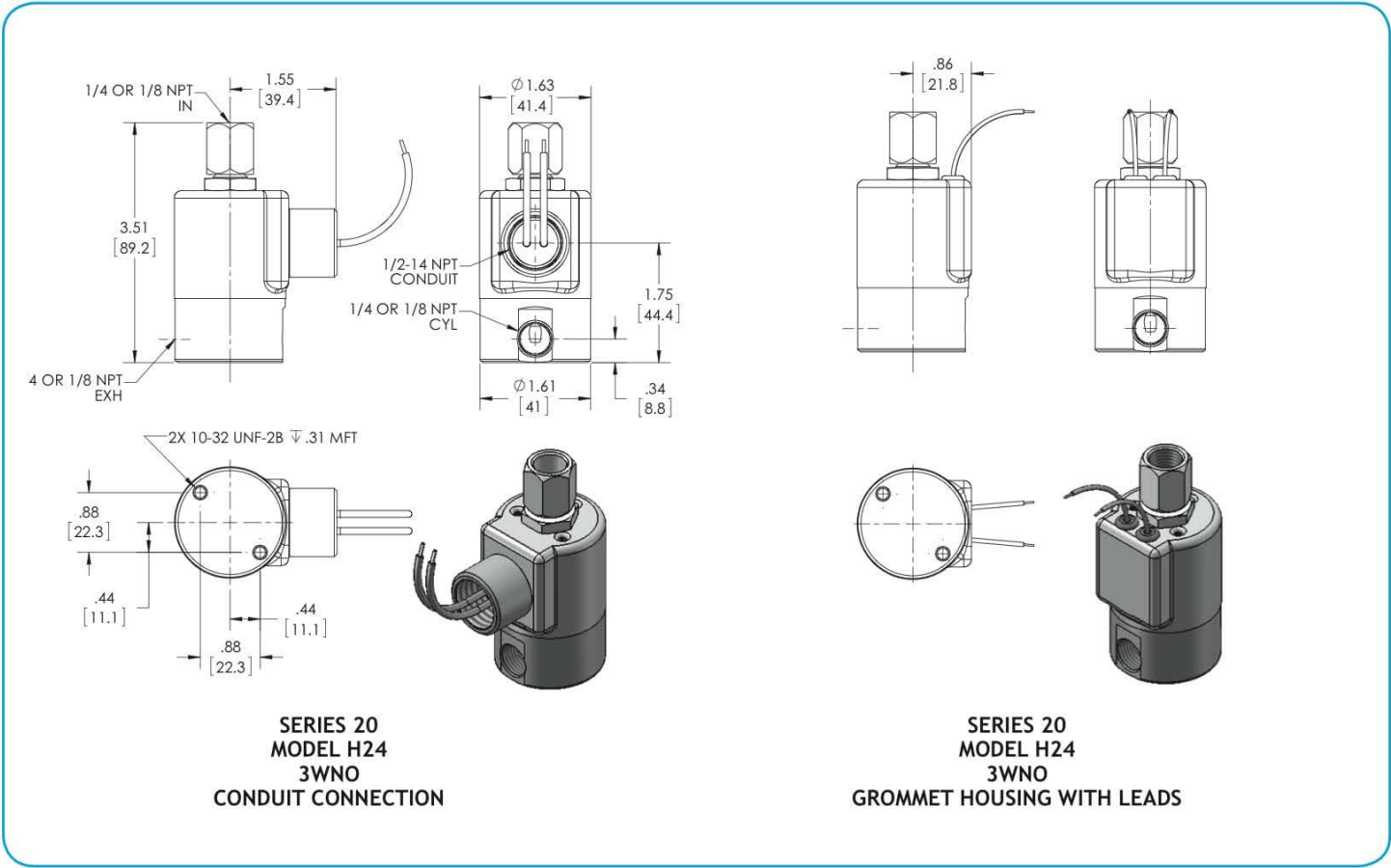
Valve Weight: 1.17 lbs

Repair Packs: See table on proceeding page.

Options: Alternate Elastomers, Alternate Sealing Pin Materials, Spade Terminal Coil, and European Style DIN*

* Consult representative or factory for options and specifications.





**SERIES 20
MODEL H24
3WNO
CONDUIT CONNECTION**

**SERIES 20
MODEL H24
3WNO
GROMMET HOUSING WITH LEADS**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF. DC	ORIFICE SIZE		CV FACTOR		GROMMET HOUSING		CONDUIT HOUSING	
	N.O.	N.C.	N.O.	N.C.	1/8 NPT PORTS	1/4 NPT PORTS	1/8 NPT PORTS	1/4 NPT PORTS
1000*	0.6 mm	1/32	.010	.022	H24MG7XGM	H24MG9ZGM	H24MG7XCM	H24MG9ZCM

* FKM seals not recommended for pressure above 500 psi.

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (H24MG7XGM 120/60) REPAIR PACK (KH24MGX AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (QH24MG7DGM 120/60)



Series 70 >> Model 72B

Very Large Orifice, Non-Piloted – 2-Way Normally Closed Valve

Super valves that have ratings that formerly required valves of much greater size. They have higher flow at low pressures and have quick media fill or dump for air, inert gases, and oil.

- Largest direct acting (non-piloted) valve we manufacture.
- Large orifice.
- High flow at low pressures.
- Gravity feed lubrication with quick media fill or dump.

Note: This valve also available as an operator. Refer to following page.

OPERATING CONDITIONS

Media: Air, inert gases, and oil. (Series 70 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 500 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 12 to 1150V AC 60 HZ. and 11 to 1035V AC 50 HZ. – 2.5 to 220V DC

Nominal Power: AC – 18.0 Watts DC – 16.0 Watts

Coil Construction: Non-molded Class A (Std.), Molded and Potted Class F, Class H (Opt.)

Typical Response Time on Air: 6-12 milliseconds to open, 12-28 milliseconds to close.

Operating Speed: Up to 350 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Aluminum anodized, corrosion resistant

Internal Components: Stainless Steel

Elastomers: FKM (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: 1/2" NPT

Housing: Grommet and 1/2" NPT conduit - many options available.*

Listings: Most valves are UL and CSA listed.*

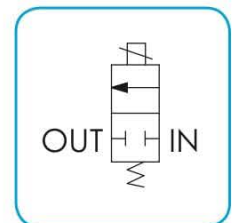
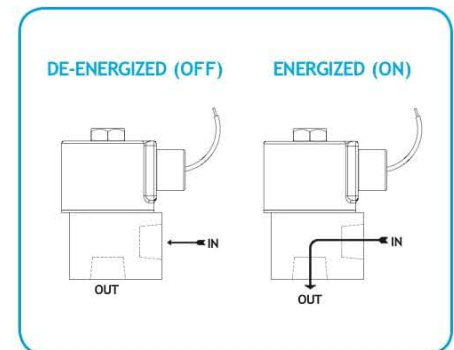
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

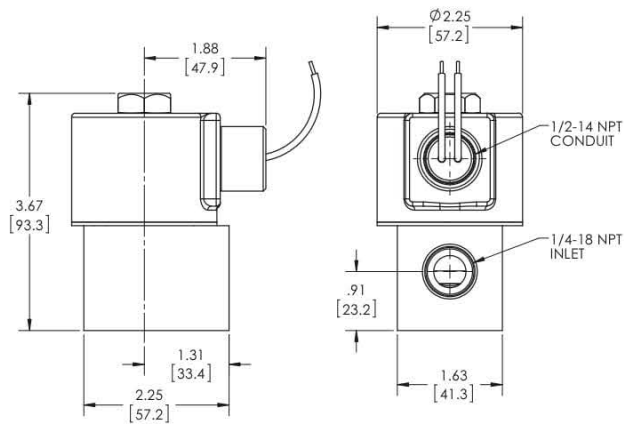
Valve Weight: 1.88 lbs

Repair Packs: See table on proceeding page.

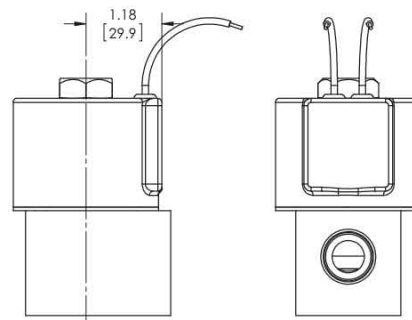
Options: Alternate Elastomers and Stainless Steel Body*

* Consult representative or factory for options and specifications.





**SERIES 70
MODEL 72B 1/2-14 NPT
2WNC
CONDUIT CONNECTION**



**SERIES 70
MODEL 72B 1/2-14 NPT
2WNC
GROMMET HOUSING WITH LEADS**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		ORIFICE SIZE	CV FACTOR	VALVE NUMBER	CONDUIT HOUSING
AC	DC	N.C.	N.C.	GROMMET HOUSING 1/2 NPT PORTS	1/2 NPT PORTS
15	15	1/2	2.92	72B11DGM	72B11DCM

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (72B11DGM 120/60) REPAIR PACK (K72BD AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (O72B11DGM 120/60)



Series 70 >> Model 72T

Very Large Orifice, Non-Piloted – 2-Way Normally Closed

Super valves that have ratings that formerly required valves of much greater size. They have higher flow at low pressures and have quick media fill or dump for air, inert gases, and oil.

- Largest direct acting (non-piloted) valve we manufacture.
- Large orifice.
- High flow at low pressures.
- Gravity feed lubrication with quick media fill or dump.

Note: This valve also available as an operator. Refer to following page.

OPERATING CONDITIONS

Media: Air, inert gases, and oil. (Series 70 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 500 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 12 to 1150V AC 60 HZ. and 11 to 1035V AC 50 HZ. – 2.5 to 220V DC

Nominal Power: AC – 18.0 Watts DC – 16.0 Watts

Coil Construction: Non-molded Class A (Std.), Molded and Potted Class F or Class H (Opt.)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 350 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Aluminum anodized, corrosion resistant

Internal Components: Stainless Steel

Elastomers: FKM (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: 3/8" NPT

Housing: Grommet and 1/2" NPT conduit - many options available.*

Listings: Most valves are UL and CSA listed.*

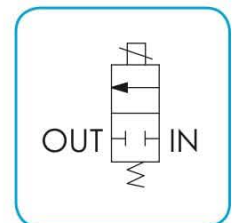
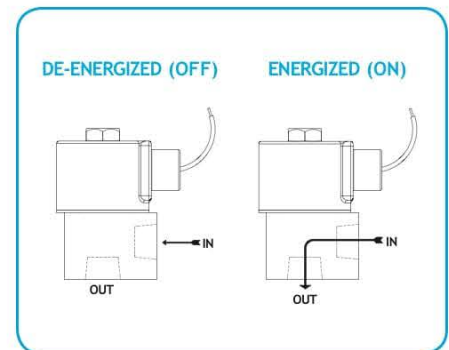
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

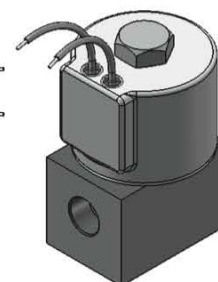
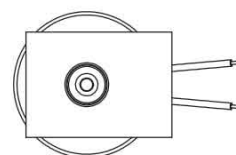
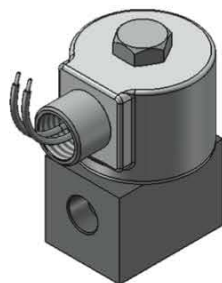
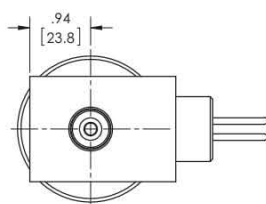
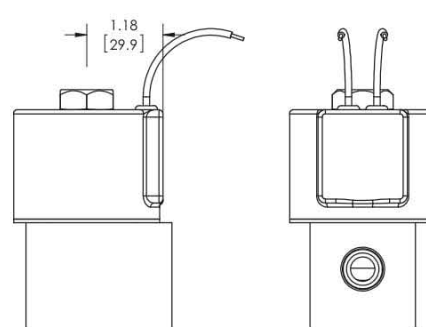
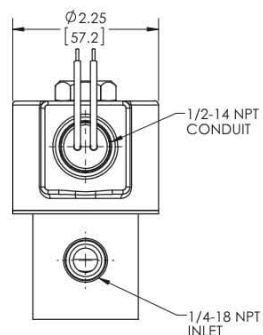
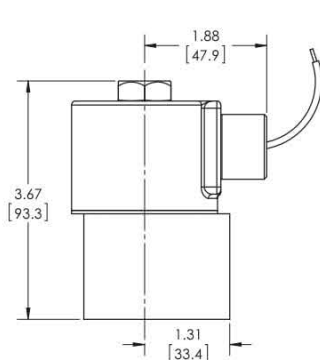
Valve Weight: 1.88 lbs

Repair Packs: See table on proceeding page.

Options: Alternate Elastomers and Stainless Steel Body*

* Consult representative or factory for options and specifications.





**SERIES 70
MODEL 72T 3/8-18 NPT
2WNC
CONDUIT CONNECTION**

**SERIES 70
MODEL 72T 3/8-18 NPT
2WNC
GROMMET HOUSING WITH LEADS**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		ORIFICE SIZE	CV FACTOR	VALVE NUMBER	CONDUIT HOUSING
AC	DC	N.C.	N.C.	GROMMET HOUSING 3/8 NPT PORTS	3/8 NPT PORTS
25	25	3/8	1.92	72T10DGM	72T10DCM

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (72T10DGM 120/60) REPAIR PACK (K72TD AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (O72T10DGM 120/60)



Series 80 >> Model 818

Large Orifice, Internally Piloted –2-Way Normally Open Valve

Peter Paul offers a line of large orifice solenoid valves to address process industry requirements for high flow rate or quick dump and fill capacity. These AC or DC powered valves are also suited for low pressure gas and liquid applications. Port sizes for the two way normally open version range from 1/2" to 3" NPT, with pressure ratings from 3 to 100 PSI.

- Large orifice sizes for high flow applications.
- Body is made of brass forgings.
- Operate on differential pressure – Internal Pilot.
- NPT threaded connections.
- Same coils and housings as our popular 20 Series.

OPERATING CONDITIONS

Media: Air, water, and oil. (Series 80 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Minimum Operating Pressure Differentials: 3 PSI

Leakage: Bubble tight

ELECTRICAL CHARACTERISTICS

Coil Voltage: 6 to 825V AC 60 HZ. and 5 to 720V AC 50 HZ. – 1.8 to 265V DC

Nominal Power: AC – 7.7 Watts DC – 9.5 Watts

Coil Construction: Non-molded Class A (Std.), Molded and Potted Class F or Class H (Opt.)

Operating Speed: Up to 100 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Brass (Std.) – Stainless Steel (Opt.)

Internal Components: Stainless Steel (Std.)

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

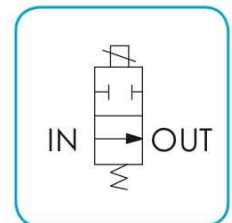
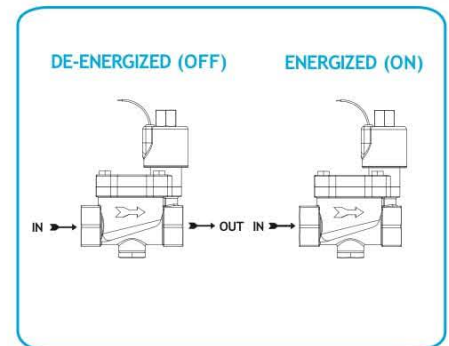
Housing: Grommet and 1/2" NPT conduit - many options available.*

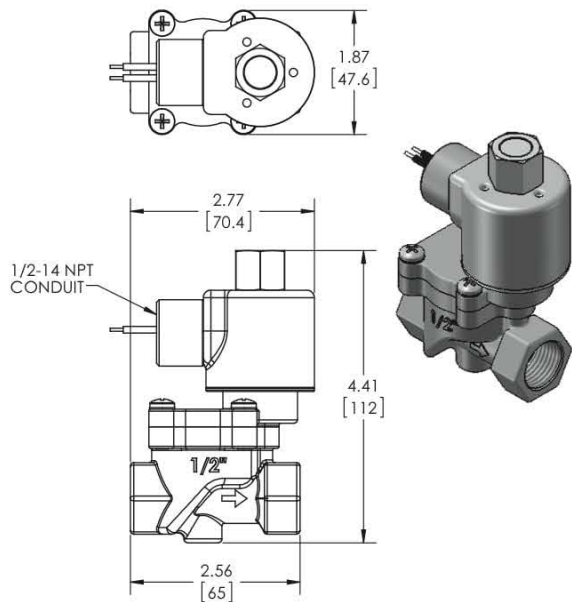
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

Repair Packs: See table on proceeding page.

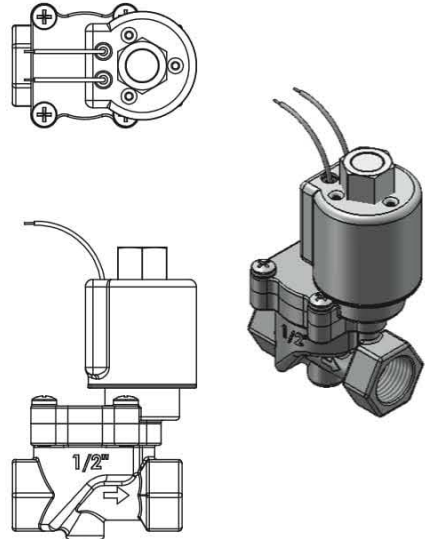
Options: Alternate Elastomers, Spade Terminal Coil, European Style DIN, and Solid-State Timer for use with DIN Coil*

* Consult representative or factory for options and specifications.





**SERIES 80
MODEL 818
2WNO INTERNAL PILOT
1/2 NPT PORTS
CONDUIT CONNECTION**



**SERIES 80
MODEL 818
2WNO INTERNAL PILOT
1/2 NPT PORTS
GROMMET HOUSING WITH LEADS**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		MIN. OPER. PRESS. DIFF.	ORIFICE SIZE N.O.	CV FACTOR N.O.	VALVE NUMBER	
AC	DC				GROMMET HOUSING	CONDUIT HOUSING
150	150	3	1/2	4.0	818B12DGM	818B12DCM
200	200	3	3/4	5.8	818Y19DGM	818Y19DCM
200	200	3	1	13.0	818D13DGM	818D13DCM
200	200	3	1 1/2	29.0	818E14DGM	818E14DCM
200	200	3	2	46.0	818F16DGM	818F16DCM
200	200	3	3	98.0	818W18DGM	818W18DCM

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (818B12DCM 120/60) REPAIR PACK (K818BDD AC)

NO OPERATOR AVAILABLE



Note: This valve also available as an operator. Refer to following page.

Series 80 >> Model 827

Large Orifice, Direct Lift –2-Way Normally Closed Valve

Peter Paul offers a line of large orifice solenoid valves to address process industry requirements for high flow rate or quick dump and fill capacity. These AC or DC powered valves are also suited for low pressure gas and liquid applications. Port sizes for direct lift, two way normally closed versions range from 3/8" to 3/4" NPT, with pressure ratings from 0 to 100 PSI.

- Large orifice sizes for high flow applications.
- Body is made of brass forgings.
- Operates at low pressure without any differential pressure across the diaphragm – Direct Lift.
- NPT threaded connections.
- Same coils and housings as our popular 20 Series.
- Direct Lift model is available in Normally Closed Only.

OPERATING CONDITIONS

Media: Air, water, and other fluids compatible with Buna seals. Hot water, steam, gasoline and many oils require special seal materials. Consult representative or factory. (Series 80 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Leakage: Bubble tight

ELECTRICAL CHARACTERISTICS

Coil Voltage: 6 to 825V AC 60 HZ. and 5 to 720V AC 50 HZ. – 1.8 to 265V DC

Nominal Power: AC – 7.7 Watts DC – 9.5 Watts

Coil Construction: Non-molded Class A (Std.), Molded and Potted Class F or Class H (Opt.)

Operating Speed: Up to 100 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Brass (Std.), Stainless Steel (Opt.)

Internal Components: Stainless Steel (Std.)

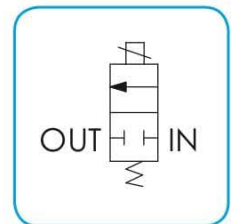
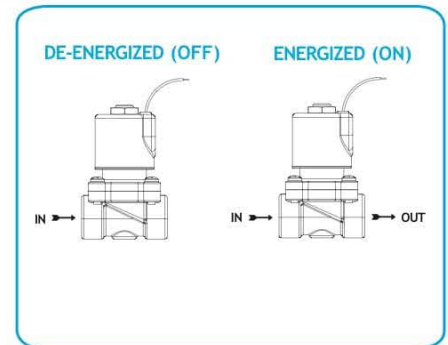
Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

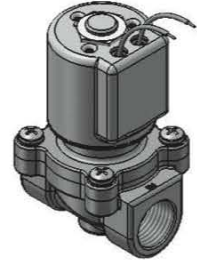
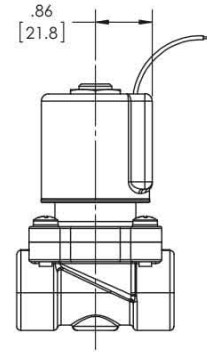
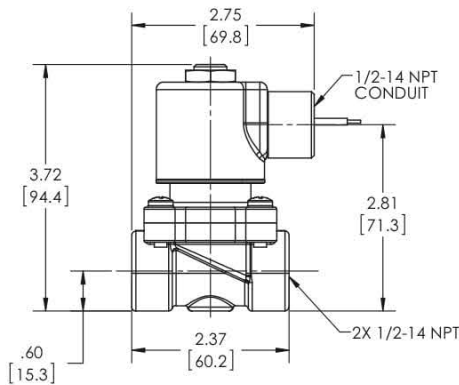
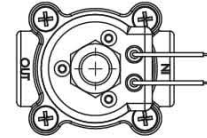
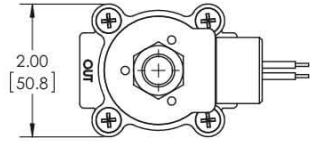
Housing: Grommet and 1/2" NPT conduit - many options available.*

Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

Repair Packs: See table on proceeding page.

Options: Alternate Elastomers, Spade Terminal Coil, European Style DIN, Explosion Proof, Magnetic Latching Coil and Solid-State Timer for use with DIN Coil*





**SERIES 80
MODEL 827
2WNC DIRECT LIFT
1/2 NPT PORTS
CONDUIT CONNECTION**

**SERIES 80
MODEL 827
2WNC DIRECT LIFT
1/2 NPT PORTS
GROMMET HOUSING WITH LEADS**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF. + AC		MIN. OPER. PRESS. DIFF.	ORIFICE SIZE N.C.	CV FACTOR N.C.	VALVE NUMBER GROMMET HOUSING	CONDUIT HOUSING
100	40	0	1/2	4.0	827T20DGM	827T20DCM
100	40	0	1/2	4.0	827B12DGM	827B12DCM
100	30 (75)	0	3/4	5.8	827Y19DGM	827Y19DCM

+ Ratings in brackets are optional extended ratings; consult factory.

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (827B12DGM 120/60) REPAIR PACK (K827BD AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (O827B12DGM 120/60)



Series 80 >> Model 828

Large Orifice, Internally Piloted – 2-Way Normally Closed Valve

Peter Paul offers a line of large orifice solenoid valves to address process industry requirements for high flow rate or quick dump and fill capacity. These AC or DC powered valves are also suited for low pressure gas and liquid applications. Port sizes for internal pilot, two way normally closed versions range from 1/2" to 3" NPT, with pressure ratings from 3 to 200 PSI.

- Large orifice sizes for high flow applications.
- Body is made of brass forgings.
- Operate on differential pressure – Internal Pilot.
- NPT threaded connections.
- Same coils and housings as our popular 20 Series.

OPERATING CONDITIONS

Media: Air, water, and other fluids compatible with Buna seals. Hot water, steam, gasoline and many oils require special seal materials. Consult representative or factory. (Series 80 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Minimum Operating Pressure Differentials: 3 PSI

Leakage: Bubble tight

ELECTRICAL CHARACTERISTICS

Coil Voltage: 6 to 825V AC 60 HZ. and 5 to 720V AC 50 HZ. – 1.8 to 265V DC

Nominal Power: AC – 7.7 Watts DC – 9.5 Watts

Coil Construction: Non-molded Class A (Std.), Molded and Potted Class F or Class H (Opt.)

Operating Speed: Up to 100 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Brass (Std.), Stainless Steel (Opt.)

Internal Components: Stainless Steel (Std.)

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

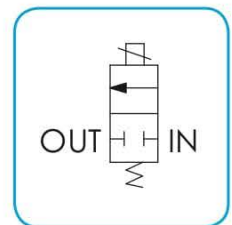
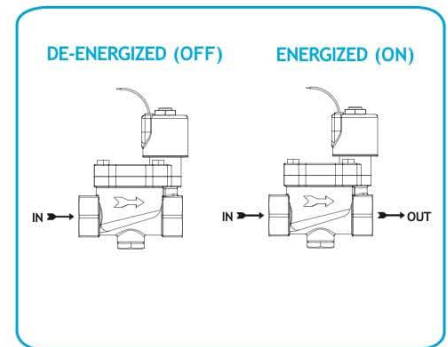
Housing: Grommet and 1/2" NPT conduit - many options available.*

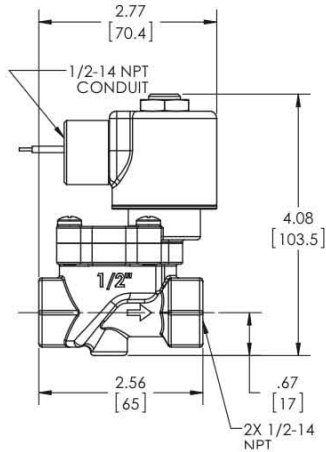
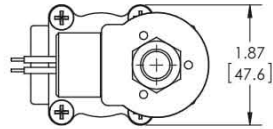
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

Repair Packs: See table on proceeding page.

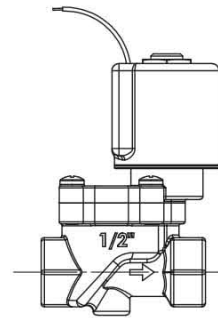
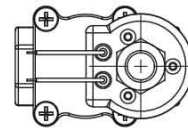
Options: Alternate Elastomers, Spade Terminal Coil, European Style DIN, Explosion Proof, Magnetic Latching Coil and Solid-State Timer for use with DIN Coil*

* Consult representative or factory for options and specifications.

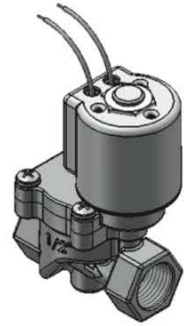




**SERIES 80
MODEL 828
2WNC INTERNAL PILOT
1/2 NPT PORTS
CONDUIT CONNECTION**



**SERIES 80
MODEL 828
2WNC INTERNAL PILOT
1/2 NPT PORTS
GROMMET HOUSING WITH LEADS**



VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		MIN. OPER. PRESS. DIFF.	ORIFICE SIZE N.C.	CV FACTOR N.C.	VALVE NUMBER	
AC	DC				GROMMET HOUSING	CONDUIT HOUSING
200	200	3	1/2	4.0	828B12DGM	828B12DCM
200	200	3	3/4	5.8	828Y19DGM	827Y19DCM
200	200	3	1	13.0	828D13DGM	828D13DCM
200	200	3	1 1/2	29.0	828E14DGM	828E14DCM
200	200	3	2	46.0	828F16DGM	828F16DCM
200	200	3	2 1/2	76.0	828W17DGM	828W17DCM
200	200	3	3	98.0	828W18DGM	828W18DCM

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (828B12DGM 120/60) REPAIR PACK (K828B12DD AC)

NO OPERATOR AVAILABLE



Note: This valve also available as an operator. Refer to following page.

Series E50 >> Model E51

Hazardous Location – 2-Way Normally Open Valve

Peter Paul explosion proof valves are used where fire or explosion hazards exist due to the presence of flammable gases or vapors, flammable liquids, combustible dust, or easily ignitable fibers. Hazardous Location valves are recommended, or in some cases compulsory, where a high level of protection from explosion is required.

- **Miniature Hazardous Location valve.**
- **Flame-Proof construction.**
- **High quality engineering.**

OPERATING CONDITIONS

Media: Air, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, oils, some hydraulic fluids, and many media require special seal materials. (Series 50 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 6.0 to 575V AC 60 HZ. and 5.4 to 515V AC 50 HZ. – 3.0 to 300V DC.

Nominal Power: AC – 5.6 Watts DC – 7.2 Watts

Coil Construction: Molded Class F with third wire ground (Std.), Class H or Potted (Opt.)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: 1/8" NPT (Std.)

Housing: Flame-Proof construction with 1/2" NPT conduit

Listings: Valves are UL listed and CSA certified for Hazardous Locations – Class I, Div 1, Group C and D - Class II, Div 1, Groups E, F, and G; Div 2, Groups C, D, E, F, and G

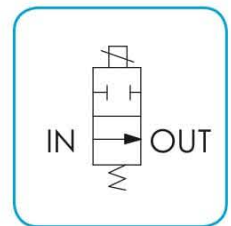
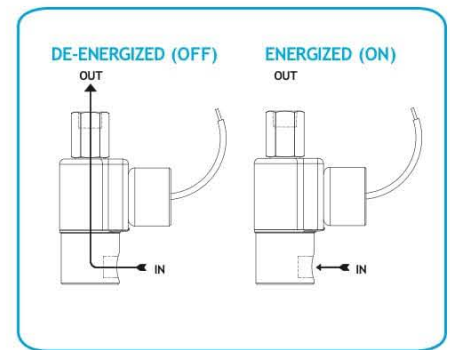
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

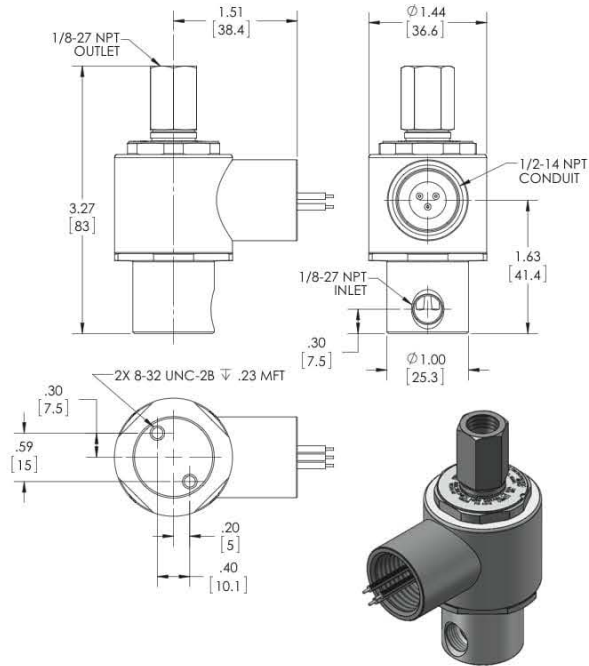
Valve Weight: 0.65 lbs

Repair Kits: See table on proceeding page.

Options: Alternate Port Locations, Metering, Alternate Elastomers, All Stainless Steel Construction*

* Consult representative or factory for options and specifications.





**SERIES E50
MODEL E51
2WNO
EXPLOSION PROOF**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		ORIFICE SIZE	CV FACTOR	VALVE NUMBER
AC	DC	N.O.	N.O.	
400	200	1/32	.020	E51G8XCCM
200	100	3/64	.048	E51H8XCCM
125	60	1/16	.075	E51J8XCCM
40	40	3/32	.150	E51K8XCCM

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (E51H8XCCM 120/60) REPAIR PACK (5KE51H AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (OE51H8DCCM 120/60)



Note: This valve also available as an operator. Refer to following page.

Series E50 >> Model E52

Hazardous Location – 2-Way Normally Closed Valve

Peter Paul explosion proof valves are used where fire or explosion hazards exist due to the presence of flammable gases or vapors, flammable liquids, combustible dust, or easily ignitable fibers. Hazardous Location valves are recommended, or in some cases compulsory, where a high level of protection from explosion is required.

- **Miniature Hazardous Location valve.**
- **Flame-Proof construction.**
- **High quality engineering.**

OPERATING CONDITIONS

Media: Air, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, oils, some hydraulic fluids, and many media require special seal materials. (Series 50 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 6.0 to 575V AC 60 HZ. and 5.4 to 515V AC 50 HZ. – 3.0 to 300V DC.

Nominal Power: AC – 4.0 Watts DC – 7.2 Watts

Coil Construction: Molded Class F with third wire ground (Std.), Class H or Potted (Opt.)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: 1/8" NPT (Std.)

Housing: Flame-Proof construction with 1/2" NPT conduit

Listings: Valves are UL listed and CSA certified for Hazardous Locations – Class I, Div 1, Group C and D - Class II, Div 1, Groups E, F, and G; Div 2, Groups C, D, E, F, and G

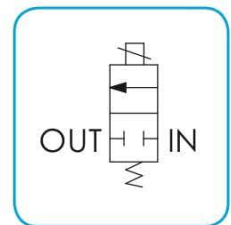
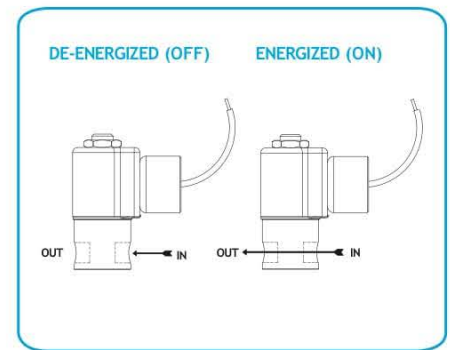
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

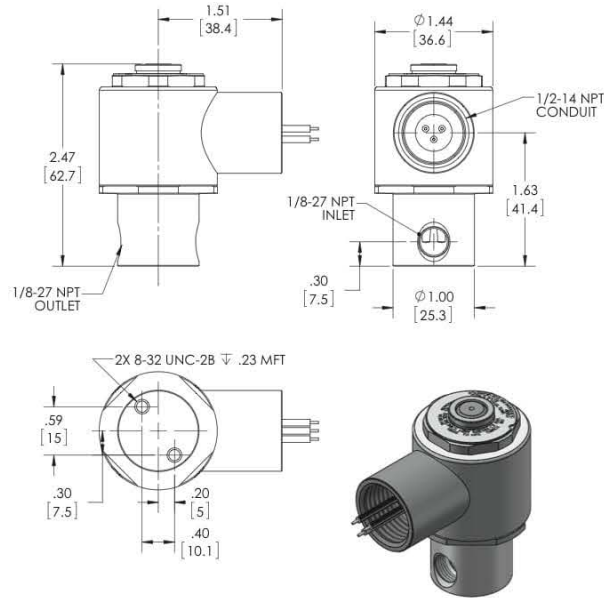
Valve Weight: 0.65 lbs

Repair Kits: See table on proceeding page.

Options: Alternate Port Locations, Metering, Alternate Elastomers, All Stainless Steel Construction*

* Consult representative or factory for options and specifications.





**SERIES E50
MODEL E52
2WNC
EXPLOSION PROOF**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		ORIFICE SIZE	CV FACTOR	VALVE NUMBER
AC	DC	N.C.	N.C.	
500	250	1/32	.022	E52G8DCCM
400	150	3/64	.055	E52H8DCCM
200	100	1/16	.075	E52J8DCCM
100	45	3/32	.156	E52K8DCCM
75	25	1/8	.230	E52N8DCCM

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (E52K8DCCM 120/60) REPAIR PACK (5KE52K AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (OE52K8DCCM 120/60)

HAZARDOUS LOCATION VALVES



Note: This valve also available as an operator. Refer to following page.

Series E50 >> Model E53

Hazardous Location 3-Way Normally Closed Valve – Exhaust to Atmosphere

Peter Paul explosion proof valves are used where fire or explosion hazards exist due to the presence of flammable gases or vapors, flammable liquids, combustible dust, or easily ignitable fibers. Hazardous Location valves are recommended, or in some cases compulsory, where a high level of protection from explosion is required.

- **Miniature Hazardous Location valve.**
- **Flame-Proof construction.**
- **High quality engineering.**

OPERATING CONDITIONS

Media: Air, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, oils, some hydraulic fluids, and many media require special seal materials. (Series 50 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 6.0 to 575V AC 60 HZ. and 5.4 to 515V AC 50 HZ. – 3.0 to 300V DC.

Nominal Power: AC – 5.6 Watts DC – 7.2 Watts

Coil Construction: Molded Class F with third wire ground (Std.), Class H or Potted (Opt.)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: 1/8" NPT (Std.)

Housing: Flame-Proof construction with 1/2" NPT conduit

Listings: Valves are UL listed and CSA certified for Hazardous Locations – Class I, Div 1, Group C and D - Class II, Div 1, Groups E, F, and G; Div 2, Groups C, D, E, F, and G

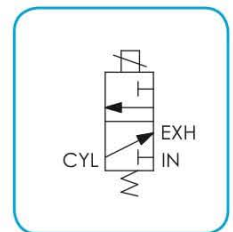
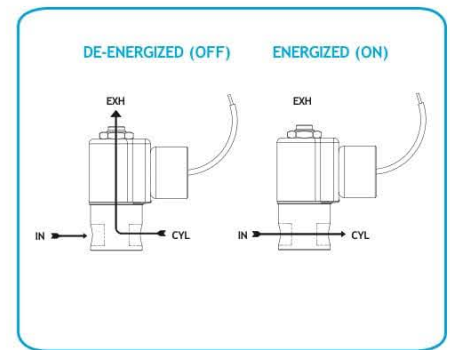
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

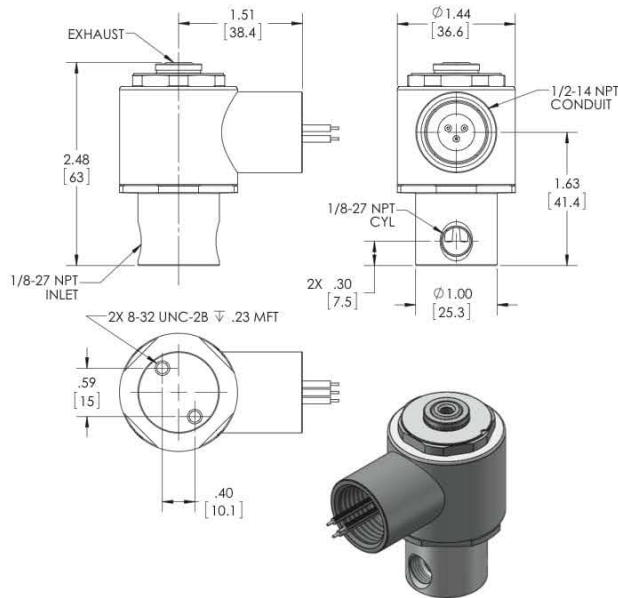
Valve Weight: 0.40 lbs

Repair Kits: See table on proceeding page.

Options: Alternate Port Locations, Metering, Alternate Elastomers, All Stainless Steel Construction*

* Consult representative or factory for options and specifications.





**SERIES E50
MODEL E53
3WNC EXHAUST TO ATMOSPHERE
EXPLOSION PROOF**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		ORIFICE SIZE		CV FACTOR		VALVE NUMBER
AC	DC	N.C.	N.O.	N.C.	N.O.	
200	200	1/32	1/32	.022	.020	E53GG8DCCM
150	150	3/64	3/64	.055	.048	E53HH8DCCM
150	150	3/64	1/16	.055	.075	E53HJ8DCCM
100	100	1/16	1/16	.075	.075	E53JJ8DCCM
60	60	3/32	1/16	.156	.075	E53KJ8DCCM
50	50	3/32	3/32	.156	.156	E53KK8DCCM
30	30	1/8	1/16	.230	.075	E53NJ8DCCM
30	30	1/8	3/32	.230	.156	E53NK8DCCM

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (E53HJ8DCCM 120/60) REPAIR PACK (5KE53HJD AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (OE53HJ8DCCM 120/60)

HAZARDOUS LOCATION VALVES



Note: This valve also available as an operator. Refer to following page.

Series E50 >> Model E53

Hazardous Location 3-Way Normally Closed Valve – Piped Exhaust

Peter Paul explosion proof valves are used where fire or explosion hazards exist due to the presence of flammable gases or vapors, flammable liquids, combustible dust, or easily ignitable fibers. Hazardous Location valves are recommended, or in some cases compulsory, where a high level of protection from explosion is required.

- **Miniature Hazardous Location valve.**
- **Flame-Proof construction.**
- **High quality engineering.**

OPERATING CONDITIONS

Media: Air, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, oils, some hydraulic fluids, and many media require special seal materials. (Series 50 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 6.0 to 575V AC 60 HZ. and 5.4 to 515V AC 50 HZ. – 3.0 to 300V DC.

Nominal Power: AC – 5.6 Watts DC – 7.2 Watts

Coil Construction: Molded Class F with third wire ground (Std.), Class H or Potted (Opt.)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: 1/8" NPT (Std.)

Housing: Flame-Proof construction with 1/2" NPT conduit

Listings: Valves are UL listed and CSA certified for Hazardous Locations – Class I, Div 1, Group C and D - Class II, Div 1, Groups E, F, and G; Div 2, Groups C, D, E, F, and G

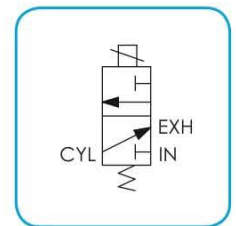
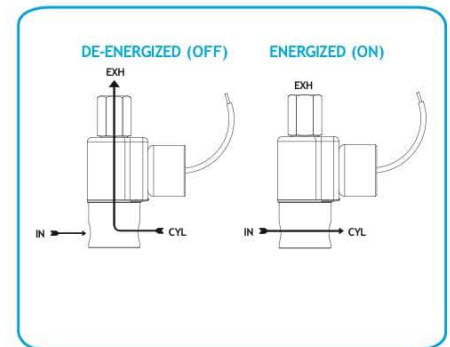
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

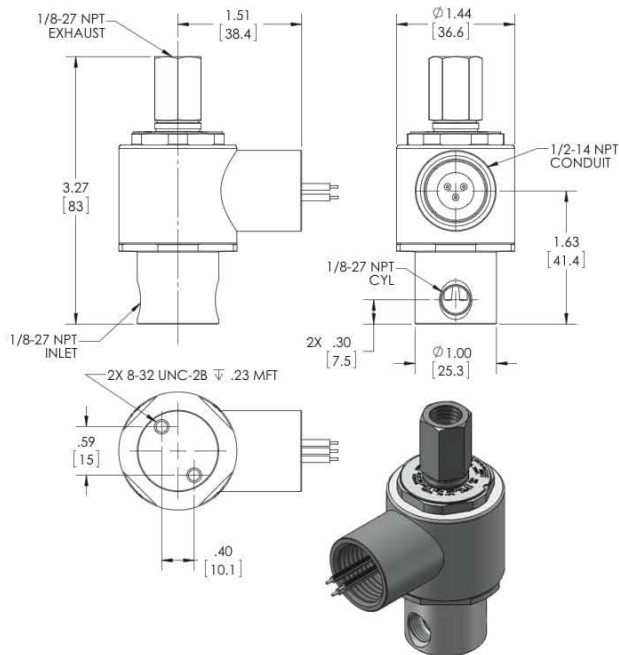
Valve Weight: 0.65 lbs

Repair Kits: See table on proceeding page.

Options: Alternate Port Locations, Metering, Alternate Elastomers, All Stainless Steel Construction*

* Consult representative or factory for options and specifications.





**SERIES E50
MODEL E53
3WNC PIPED EXHAUST
EXPLOSION PROOF**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		ORIFICE SIZE		CV FACTOR		VALVE NUMBER
AC	DC	N.C.	N.O.	N.C.	N.O.	
200	200	1/32	1/32	.022	.020	E53GG8XCCM
150	150	3/64	3/64	.055	.048	E53HH8XCCM
150	150	3/64	1/16	.055	.075	E53HJ8XCCM
100	100	1/16	1/16	.075	.075	E53JJ8XCCM
60	60	3/32	1/16	.156	.075	E53KJ8XCCM
50	50	3/32	3/32	.156	.156	E53KK8XCCM
30	30	1/8	1/16	.230	.075	E53NJ8XCCM
30	30	1/8	3/32	.230	.156	E53NK8XCCM

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (E53HJ8XCCM 120/60) REPAIR PACK (5KE53HJX AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (OE53HJ8DCCM 120/60)

HAZARDOUS LOCATION VALVES



Note: This valve also available as an operator. Refer to following page.

Series E50 >> Model E54

Hazardous Location – 3-Way Normally Open Valve

Our original mini – engineered for space economy without sacrificing performance. Typical applications include medical, analytical instrumentation. Air, water, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, and many oils require special seal materials.

- Tough with options to use in hazardous location environments or low watt applications.
- High quality engineering.

OPERATING CONDITIONS

Media: Air, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, oils, some hydraulic fluids, and many media require special seal materials. (Series 50 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 6.0 to 575V AC 60 HZ. and 5.4 to 515V AC 50 HZ. – 3.0 to 300V DC.

Nominal Power: AC – 5.6 Watts DC – 7.2 Watts

Coil Construction: Molded Class F with third wire ground (Std.), Class H or Potted (Opt.)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: 1/8" NPT (Std.)

Housing: Flame-Proof construction with 1/2" NPT conduit

Listings: Valves are UL listed and CSA certified for Hazardous Locations – Class I, Div 1, Group C and D - Class II, Div 1, Groups E, F, and G; Div 2, Groups C, D, E, F, and G

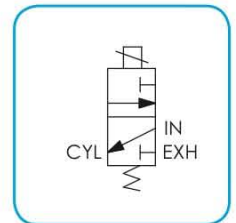
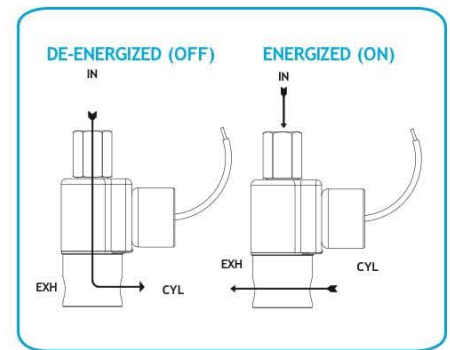
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

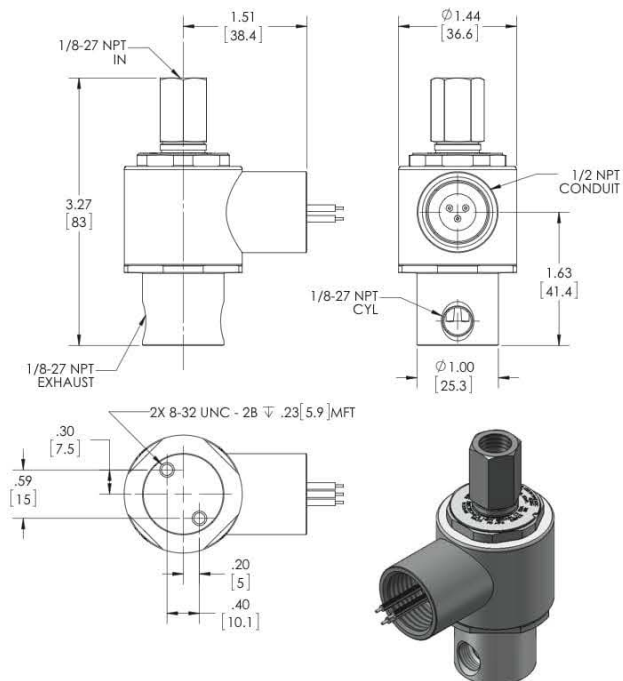
Valve Weight: 0.40 lbs

Repair Kits: See table on proceeding page.

Options: Alternate Port Locations, Metering, Alternate Elastomers, All Stainless Steel Construction*

* Consult representative or factory for options and specifications.





**SERIES E50
MODEL E54
3WNO
EXPLOSION PROOF**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		ORIFICE SIZE		CV FACTOR		VALVE NUMBER
AC	DC	N.O.	N.C.	N.O.	N.C.	
150	150	1/32	1/32	.020	.022	E54GG8XCCM
125	125	3/64	3/64	.048	.055	E54HH8XCCM
100	75	1/16	1/16	.075	.075	E54JJ8XCCM
75	45	1/16	3/32	.075	.156	E54JK8XCCM
50	50	3/32	3/32	.156	.156	E54KK8XCCM
50	30	1/16	1/8	.075	.230	E54NJ8XCCM
40	25	3/32	1/8	.156	.230	E54NK8XCCM

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (E54JK8XCCM 120/60) REPAIR PACK (5KE54JK AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (OE54JK8DCCM 120/60)

HAZARDOUS LOCATION VALVES



Note: This valve also available as an operator. Refer to following page.

Series E50 >> Model E55

Hazardous Location – 3-Way Directional Control Valve

Peter Paul explosion proof valves are used where fire or explosion hazards exist due to the presence of flammable gases or vapors, flammable liquids, combustible dust, or easily ignitable fibers. Hazardous Location valves are recommended, or in some cases compulsory, where a high level of protection from explosion is required.

- **Miniature Hazardous Location valve.**
- **Flame-Proof construction.**
- **High quality engineering.**

OPERATING CONDITIONS

Media: Air, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, oils, some hydraulic fluids, and many media require special seal materials. (Series 50 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 6.0 to 575V AC 60 HZ. and 5.4 to 515V AC 50 HZ. – 3.0 to 300V DC.

Nominal Power: AC – 5.6 Watts DC – 7.2 Watts

Coil Construction: Molded Class F with third wire ground (Std.), Class H or Potted (Opt.)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: 1/8" NPT (Std.)

Housing: Flame-Proof construction with 1/2" NPT conduit

Listings: Valves are UL listed and CSA certified for Hazardous Locations – Class I, Div 1, Group C and D - Class II, Div 1, Groups E, F, and G; Div 2, Groups C, D, E, F, and G

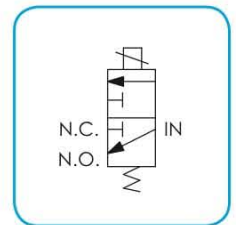
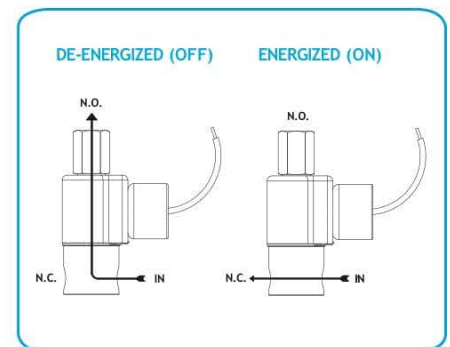
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

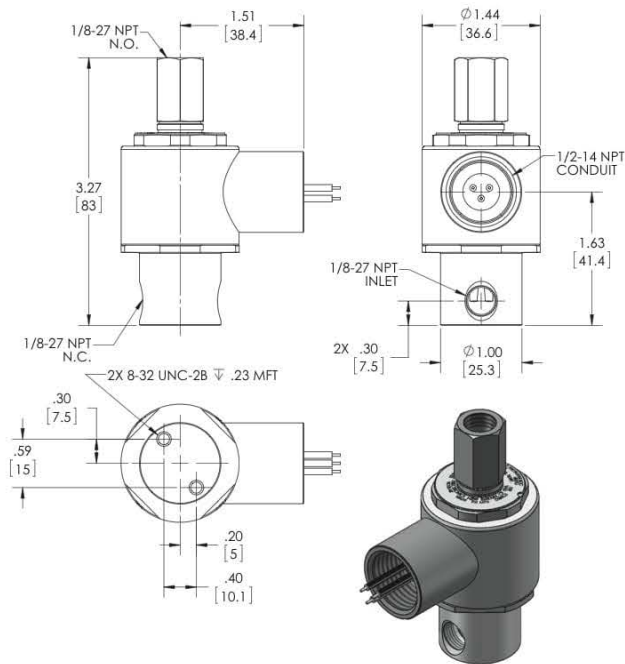
Valve Weight: 0.65 lbs

Repair Kits: See table on proceeding page.

Options: Alternate Port Locations, Metering, Alternate Elastomers, All Stainless Steel Construction*

* Consult representative or factory for options and specifications.





**SERIES E50
MODEL E55
3-WAY DIRECTIONAL CONTROL
EXPLOSION PROOF**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		ORIFICE SIZE		CV FACTOR		VALVE NUMBER
AC	DC	NC	NO	NC	NO	
300	200	1/32	1/32	.022	.020	E55GG8XCCM
200	100	3/64	3/64	.055	.048	E55HH8XCCM
100	50	1/16	1/16	.075	.075	E55JJ8XCCM
75	25	3/32	1/16	.156	.075	E55KJ8XCCM
75	40	3/32	3/32	.156	.156	E55KK8XCCM
65	20	1/8	1/16	.230	.075	E55NJ8XCCM
45	20	1/8	3/32	.230	.156	E55NK8XCCM

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (E55KJ8XCCM 120/60) REPAIR PACK (5KE55KJ AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (OE55KJ8DCCM 120/60)

HAZARDOUS LOCATION VALVES



Note: This valve also available as an operator. Refer to following page.

Series E50 >> Model E56

Hazardous Location – 3-Way Multi-Purpose Valve

Peter Paul explosion proof valves are used where fire or explosion hazards exist due to the presence of flammable gases or vapors, flammable liquids, combustible dust, or easily ignitable fibers. Hazardous Location valves are recommended, or in some cases compulsory, where a high level of protection from explosion is required.

- **Miniature Hazardous Location valve.**
- **Flame-Proof construction.**
- **High quality engineering.**

OPERATING CONDITIONS

Media: Air, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, oils, some hydraulic fluids, and many media require special seal materials. (Series 50 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 6.0 to 575V AC 60 HZ. and 5.4 to 515V AC 50 HZ. – 3.0 to 300V DC.

Nominal Power: AC – 5.6 Watts DC – 7.2 Watts

Coil Construction: Molded Class F with third wire ground (Std.), Class H or Potted (Opt.)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: 1/8" NPT (Std.)

Housing: Flame-Proof construction with 1/2" NPT conduit

Listings: Valves are UL listed and CSA certified for Hazardous Locations – Class I, Div 1, Group C and D - Class II, Div 1, Groups E, F, and G; Div 2, Groups C, D, E, F, and G

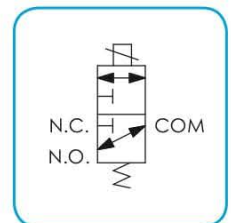
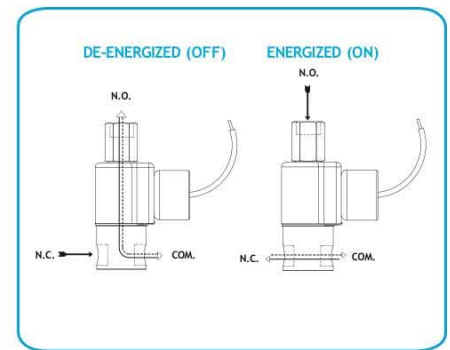
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

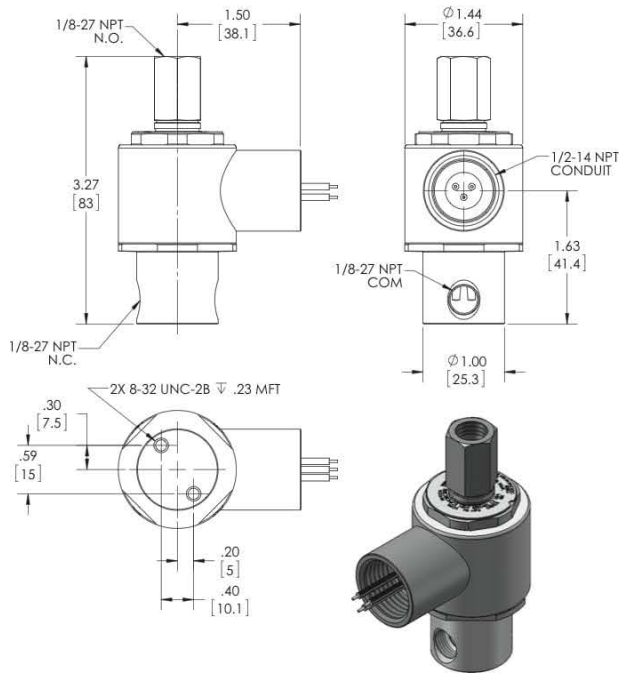
Valve Weight: 0.65 lbs

Repair Kits: See table on proceeding page.

Options: Alternate Port Locations, Metering, Alternate Elastomers, All Stainless Steel Construction*

* Consult representative or factory for options and specifications.





**SERIES E50
MODEL E56
3-WAY MULTI-PURPOSE
EXPLOSION PROOF**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		ORIFICE SIZE		CV FACTOR		VALVE NUMBER
AC	DC	N.C.	N.O.	N.C.	N.O.	
125	125	1/32	1/32	.022	.020	E56GG8XCCM
100	100	3/64	3/64	.055	.048	E56HH8XCCM
65	50	1/16	1/16	.075	.075	E56JJ8XCCM
25	25	3/32	3/32	.156	.156	E56KK8XCCM

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (E56KK8XCCM 120/60) REPAIR PACK (5KE56KK AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (OE56KK8DCCM 120/60)



Note: This valve also available as an operator. Refer to following page.

Series EL 50 >> Model EL51

Low Watt Hazardous Location – 2-Way Normally Open Valve

Peter Paul explosion proof valves are used where fire or explosion hazards exist due to the presence of flammable gases or vapors, flammable liquids, combustible dust, or easily ignitable fibers. Hazardous Location valves are recommended, or in some cases compulsory, where a high level of protection from explosion is required.

- **Miniature Hazardous Location valves uses less power than E51.**
- **Flame-Proof construction.**
- **High quality engineering.**

OPERATING CONDITIONS

Media: Air and other common gases and common refrigerants except ammonia, city gas supplies by public utilities, Nos. 1 and 2 fuel oils, oils having viscosities not more than 40, SU at 100°F, steam, some hydraulic and water or other aqueous non-flammable liquids. Some media require special seal material. (Series 50 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 4000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 12 to 240V AC 60 HZ. — 5 to 120V DC

Nominal Power: AC — 1.8 Watts DC — 1.8 Watts

Coil Construction: Molded Class F with third wire ground (Std.), Class H or Potted (Opt.)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: 1/8" NPT (Std.)

Housing: Flame-Proof construction with 1/2" NPT conduit

Listings: Valves are UL listed and CSA certified for Hazardous Locations — Class I, Div 1, Group C and D - Class II, Div 1, Groups E, F, and G; Div 2, Groups C, D, E, F, and G

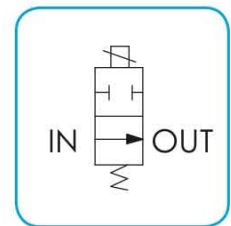
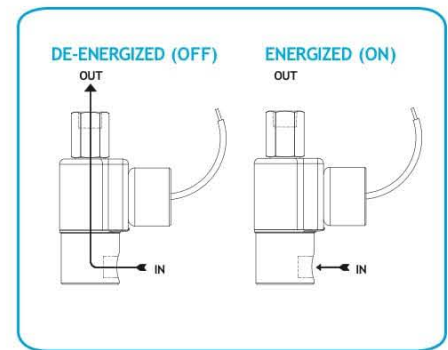
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

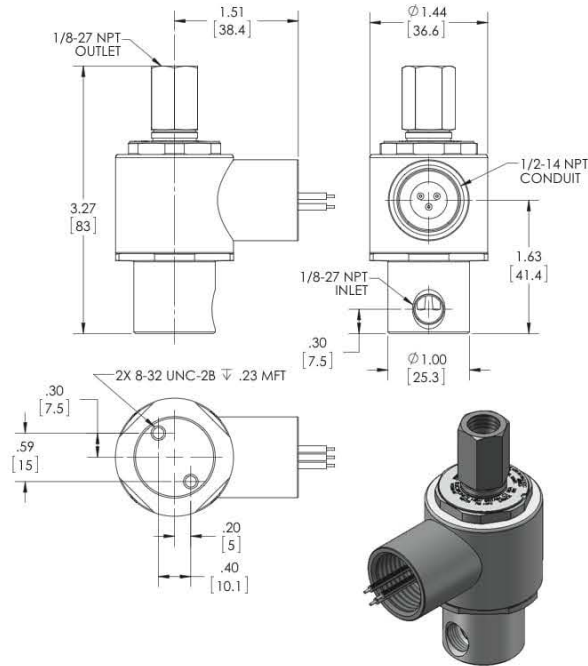
Valve Weight: 0.65 lbs

Repair Kits: See table on proceeding page.

Options: Alternate Port Locations, Metering, Alternate Elastomers, All Stainless Steel Construction*

* Consult representative or factory for options and specifications.





**SERIES EL 50
MODEL EL51
2WNO
EXPLOSION PROOF**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		ORIFICE SIZE	CV FACTOR	VALVE NUMBER
AC	DC	N.O.	N.O.	
200	200	1/32	.020	EL51G8XCCM
120	120	3/64	.048	EL51H8XCCM
50	50	1/16	.075	EL51J8XCCM

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (EL51H8XCCM 120/60) REPAIR PACK (5KELW51H AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (OEL51H8DCCM 120/60)



Note: This valve also available as an operator. Refer to following page.

Series EL 50 >> Model EL52

Low Watt Hazardous Location – 2-Way Normally Closed Valve

Peter Paul explosion proof valves are used where fire or explosion hazards exist due to the presence of flammable gases or vapors, flammable liquids, combustible dust, or easily ignitable fibers. Hazardous Location valves are recommended, or in some cases compulsory, where a high level of protection from explosion is required.

- **Miniature Hazardous Location valves uses less power than E52.**
- **Flame-Proof construction.**
- **High quality engineering.**

OPERATING CONDITIONS

Media: Air and other common gases and common refrigerants except ammonia, city gas supplies by public utilities, Nos. 1 and 2 fuel oils, oils having viscosities not more than 40, SU at 100°F, steam, some hydraulic and water or other aqueous non-flammable liquids. Some media require special seal material. (Series 50 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 4000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 12 to 240V AC 60 HZ. – 5 to 120V DC

Nominal Power: AC – 1.8 Watts DC – 1.8 Watts

Coil Construction: Molded Class F with third wire ground (Std.), Class H or Potted (Opt.)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: 1/8" NPT (Std.)

Housing: Flame-Proof construction with 1/2" NPT conduit

Listings: Valves are UL listed and CSA certified for Hazardous Locations – Class I, Div 1, Group C and D - Class II, Div 1, Groups E, F, and G; Div 2, Groups C, D, E, F, and G

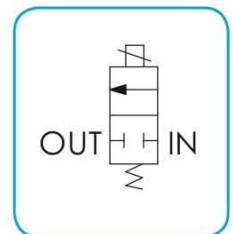
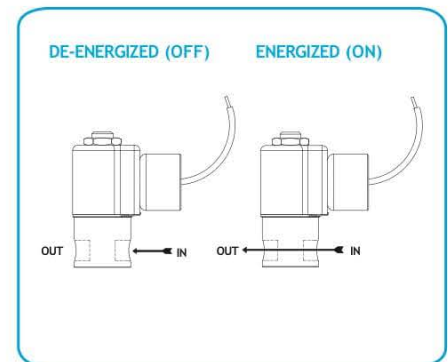
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

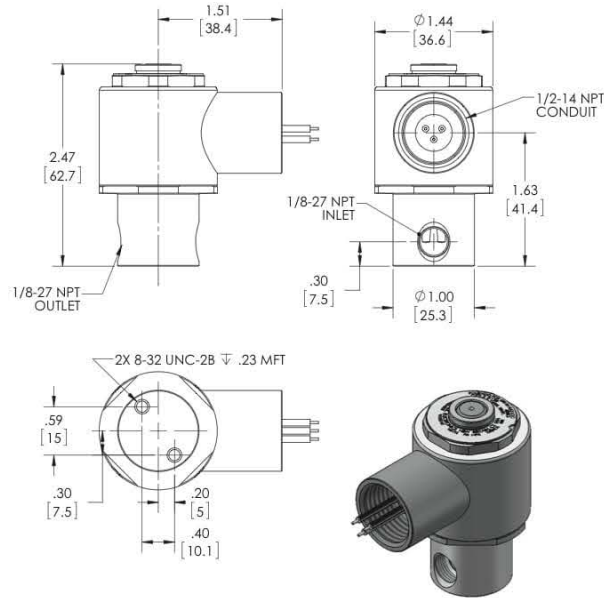
Valve Weight: 0.65 lbs

Repair Kits: See table on proceeding page.

Options: Alternate Port Locations, Metering, Alternate Elastomers, All Stainless Steel Construction*

* Consult representative or factory for options and specifications.





**SERIES EL 50
MODEL EL52
2WNC
EXPLOSION PROOF**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		ORIFICE SIZE	CV FACTOR	VALVE NUMBER
AC	DC			
120	120	1/32	.022	EL52G8DCCM
80	80	3/64	.055	EL52H8DCCM
50	50	1/16	.075	EL52J8DCCM

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (EL52H8DCCM 120/60) REPAIR PACK (5KEL52H AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (OEL52H8DCCM 120/60)



Note: This valve also available as an operator. Refer to following page.

Series EL 50 >> Model EL53

Low Watt Hazardous Location – 3-Way Normally Closed Valve Exhaust to Atmosphere

Peter Paul explosion proof valves are used where fire or explosion hazards exist due to the presence of flammable gases or vapors, flammable liquids, combustible dust, or easily ignitable fibers. Hazardous Location valves are recommended, or in some cases compulsory, where a high level of protection from explosion is required.

- **Miniature Hazardous Location valves uses less power than E53.**
- **Flame-Proof construction.**

OPERATING CONDITIONS

Media: Air and other common gases and common refrigerants except ammonia, city gas supplies by public utilities, Nos. 1 and 2 fuel oils, oils having viscosities not more than 40, SU at 100°F, steam, some hydraulic and water or other aqueous non-flammable liquids. Some media require special seal material. (Series 50 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 4000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 12 to 240V AC 60 HZ. – 5 to 120V DC

Nominal Power: AC – 1.8 Watts DC – 1.8 Watts

Coil Construction: Molded Class F with third wire ground (Std.), Class H or Potted (Opt.)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: 1/8" NPT (Std.)

Housing: Flame-Proof construction with 1/2" NPT conduit

Listings: Valves are UL listed and CSA certified for Hazardous Locations – Class I, Div 1, Group C and D - Class II, Div 1, Groups E, F, and G; Div 2, Groups C, D, E, F, and G

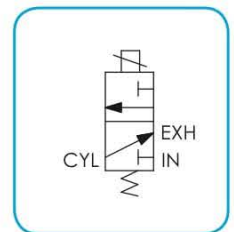
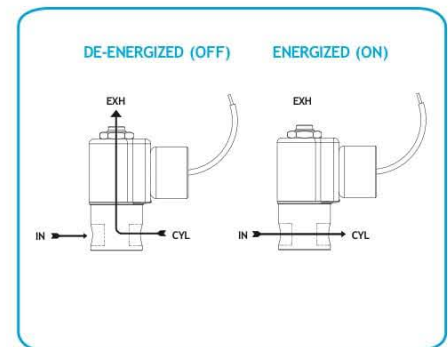
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

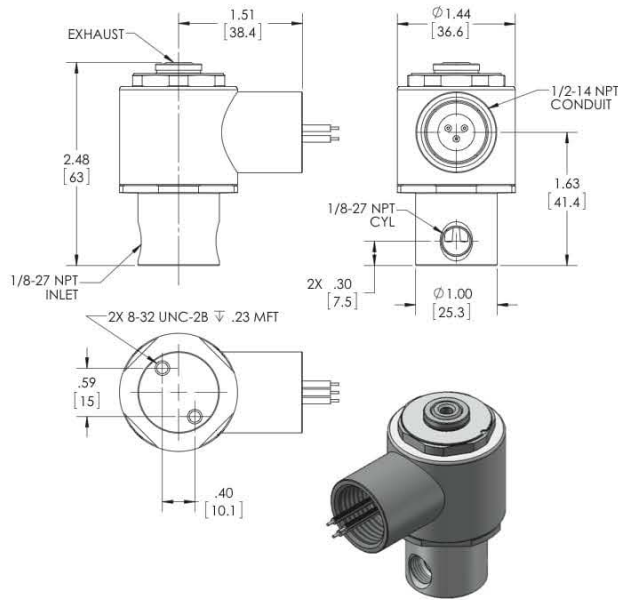
Valve Weight: 0.65 lbs

Repair Kits: See table on proceeding page.

Options: Alternate Port Locations, Metering, Alternate Elastomers, All Stainless Steel Construction*

* Consult representative or factory for options and specifications.





**SERIES EL 50
MODEL EL53
3WNC EXHAUST TO ATMOSPHERE
EXPLOSION PROOF**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		ORIFICE SIZE		CV FACTOR		VALVE NUMBER
AC	DC	N.C.	N.O.	N..C	N.O.	
120	120	1/32	1/32	.055	.048	EL53GG8DCCM
120	120	1/32	3/64	.022	.048	EL53GH8DCCM
60	60	3/64	3/64	.055	.048	EL53HH8DCCM
30	30	1/16	1/16	.075	.075	EL53JJ8DCCM

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (EL53HH8DCCM 120/60) REPAIR PACK (5KEL53HHD AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (OEL53HH8DCCM 120/60)



Series EL 50 >> Model EL53

Low Watt Hazardous Location 3-Way Normally Closed Valve – Piped Exhaust

Peter Paul explosion proof valves are used where fire or explosion hazards exist due to the presence of flammable gases or vapors, flammable liquids, combustible dust, or easily ignitable fibers. Hazardous Location valves are recommended, or in some cases compulsory, where a high level of protection from explosion is required.

- Miniature Hazardous Location valves uses less power than E53.
- Flame-Proof construction.

Note: This valve also available as an operator. Refer to following page.

OPERATING CONDITIONS

Media: Air, other common gases and common refrigerants except ammonia, city gas supplies by public utilities, Nos. 1 and 2 fuel oils, oils having viscosities not more than 40, SU at 100°F, steam, some hydraulic and water or other aqueous non-flammable liquids. Some media require special seal material. (Series 50 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 4000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 12 to 240V AC 60 HZ. – 5 to 120V DC

Nominal Power: AC – 1.8 Watts DC – 1.8 Watts

Coil Construction: Molded Class F with third wire ground (Std.), Class H or Potted (Opt.)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: 1/8" NPT (Std.)

Housing: Flame-Proof construction with 1/2" NPT conduit

Listings: Valves are UL listed and CSA certified for Hazardous Locations – Class I, Div 1, Group C and D - Class II, Div 1, Groups E, F, and G; Div 2, Groups C, D, E, F, and G

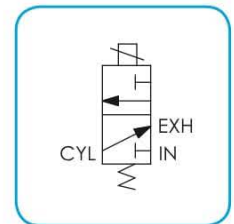
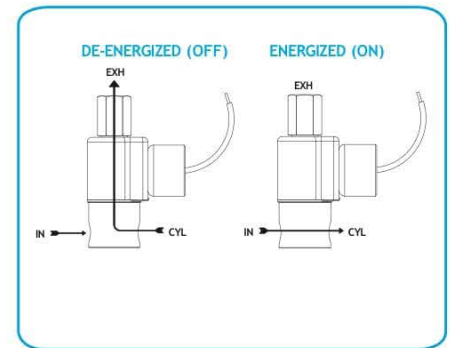
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

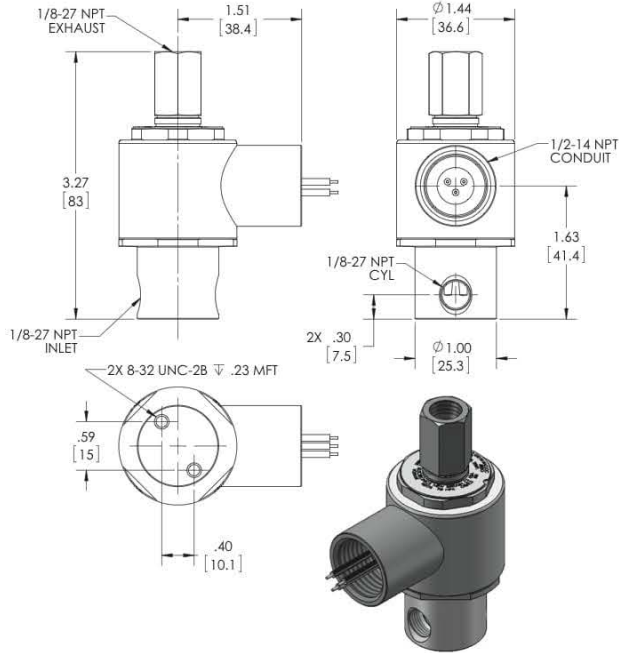
Valve Weight: 0.65 lbs

Repair Kits: See table on proceeding page.

Options: Alternate Port Locations, Metering, Alternate Elastomers, All Stainless Steel Construction*

* Consult representative or factory for options and specifications.





**SERIES EL 50
MODEL EL53
3WNC PIPED EXHAUST
EXPLOSION PROOF**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		ORIFICE SIZE		CV FACTOR		VALVE NUMBER
AC	DC	N.C.	N.O.	N.C.	N.O.	
120	120	1/32	1/32	.055	.048	EL53GG8XCCM
120	120	1/32	3/64	.022	.048	EL53GH8XCCM
60	60	3/64	3/64	.055	.048	EL53HH8XCCM
30	30	1/16	1/16	.075	.075	EL53JJ8XCCM

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (EL53HH8XCCM 120/60) REPAIR PACK (5KEL53HHX AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (OEL53HH8DCCM 120/60)



Note: This valve also available as an operator. Refer to following page.

Series ELL50 >> Model ELL52

Very Low Watt Hazardous Location – 2-Way Normally Closed Valve

Peter Paul explosion proof valves are used where fire or explosion hazards exist due to the presence of flammable gases or vapors, flammable liquids, combustible dust, or easily ignitable fibers. Hazardous Location valves are recommended, or in some cases compulsory, where a high level of protection from explosion is required.

- **Miniature Hazardous Location valves uses less power than EL52.**
- **Flame-Proof construction.**
- **High quality engineering.**

OPERATING CONDITIONS

Media: Air and other common gases only.*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 4000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 5 to 120V DC.

Nominal Power: DC – .85 Watts

Coil Construction: Molded Class F with third wire ground (Std.), Class H or Potted (Opt.)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: 1/8" NPT (Std.)

Housing: Flame-Proof construction with 1/2" NPT conduit

Listings: Valves are UL listed and CSA certified for Hazardous Locations – Class I, Div 1, Group C and D - Class II, Div 1, Groups E, F, and G; Div 2, Groups C, D, E, F, and G

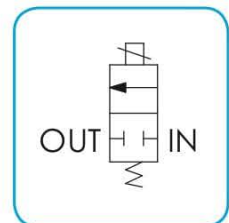
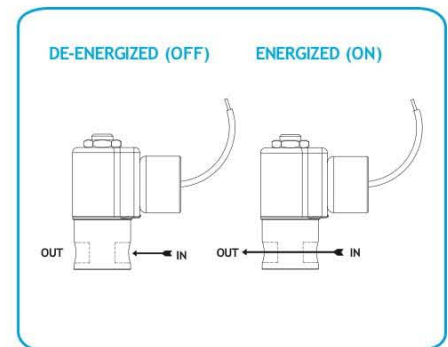
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

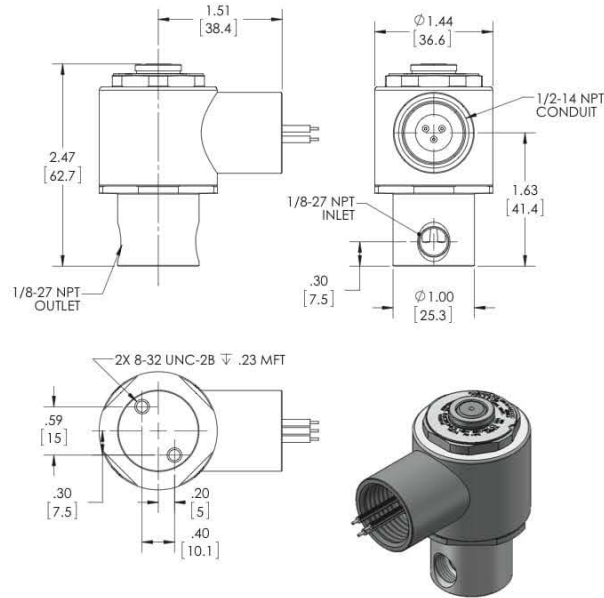
Valve Weight: 0.65 lbs

Repair Kits: See table on proceeding page.

Options: Alternate Port Locations, Metering, Alternate Elastomers, All Stainless Steel Construction*

* Consult representative or factory for options and specifications.





**SERIES ELL50
MODEL ELL52
2WNC
EXPLOSION PROOF**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF. (GAS ONLY) DC	ORIFICE SIZE N.C.	CV FACTOR N.C.	VALVE NUMBER
120	1/32	.022	ELL52G8DCCM

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (ELL52G8DCCM 120/60) REPAIR PACK (5KELL52G AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (OELL52G8DCCM 120/60)

HAZARDOUS LOCATION VALVES



Note: This valve also available as an operator. Refer to following page.

Series ELL50 >> Model ELL53

Very Low Watt Hazardous Location – 3-Way Normally Closed Valve – Exhaust to Atmosphere

Peter Paul explosion proof valves are used where fire or explosion hazards exist due to the presence of flammable gases or vapors, flammable liquids, combustible dust, or easily ignitable fibers. Hazardous Location valves are recommended, or in some cases compulsory, where a high level of protection from explosion is required.

- **Miniature Hazardous Location valves uses less power than EL53.**
- **Flame-Proof construction.**
- **High quality engineering.**

OPERATING CONDITIONS

Media: Air and other common gases only.*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 4000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 5 to 120V DC.

Nominal Power: DC – .85 Watts

Coil Construction: Molded Class F with third wire ground (Std.), Class H or Potted (Opt.)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: 1/8" NPT (Std.)

Housing: Flame-Proof construction with 1/2" NPT conduit

Listings: Valves are UL listed and CSA certified for Hazardous Locations – Class I, Div 1, Group C and D - Class II, Div 1, Groups E, F, and G; Div 2, Groups C, D, E, F, and G

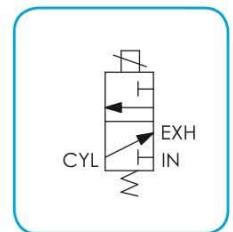
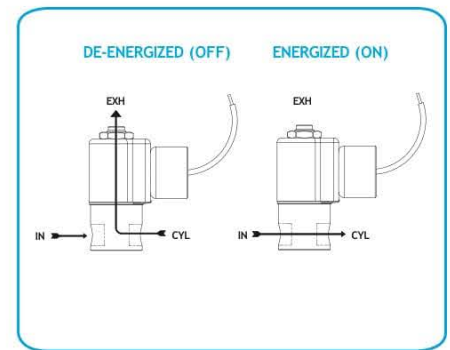
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

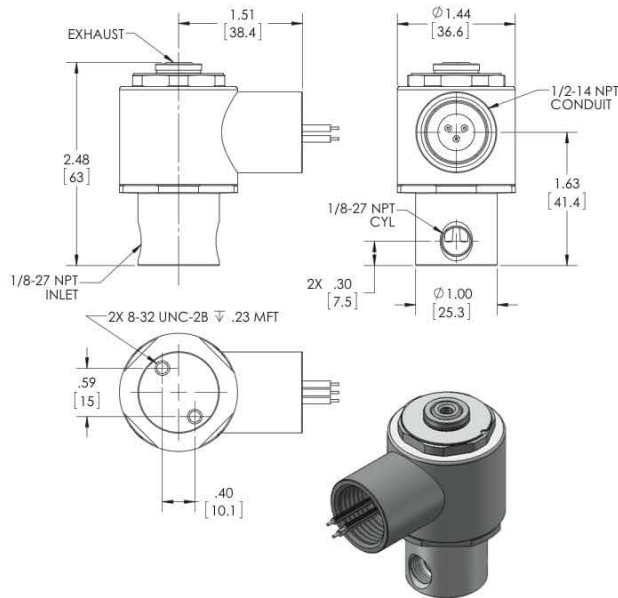
Valve Weight: 0.65 lbs

Repair Kits: See table on proceeding page.

Options: Alternate Port Locations, Metering, Alternate Elastomers, All Stainless Steel Construction*

* Consult representative or factory for options and specifications.





**SERIES ELL50
MODEL ELL53
3WNC EXHAUST TO ATMOSPHERE
EXPLOSION PROOF**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF. (GAS ONLY) DC	ORIFICE SIZE		CV FACTOR		VALVE NUMBER
	N.C.	N.O.	N.C.	N.O.	
120	1/32	1/32	.022	.022	ELL53GG8DCCM

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (ELL53GG8DCCM 12/DC) REPAIR PACK (5KELL53GGD DC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (OELL53GG8DCCM 12/DC)

HAZARDOUS LOCATION VALVES



Note: This valve also available as an operator. Refer to following page.

Series ELL50 >> Model ELL53

Very Low Watt Hazardous Location – 3-Way Normally Closed Valve – Piped Exhaust

Peter Paul explosion proof valves are used where fire or explosion hazards exist due to the presence of flammable gases or vapors, flammable liquids, combustible dust, or easily ignitable fibers. Hazardous Location valves are recommended, or in some cases compulsory, where a high level of protection from explosion is required.

- **Miniature Hazardous Location valves uses less power than EL53.**
- **Flame-Proof construction.**
- **High quality engineering.**

OPERATING CONDITIONS

Media: Air and other common gases only.*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 4000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 5 to 120V DC.

Nominal Power: DC – .85 Watts

Coil Construction: Molded Class F with third wire ground (Std.), Class H or Potted (Opt.)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: 1/8" NPT (Std.)

Housing: Flame-Proof construction with 1/2" NPT conduit

Listings: Valves are UL listed and CSA certified for Hazardous Locations – Class I, Div 1, Group C and D - Class II, Div 1, Groups E, F, and G; Div 2, Groups C, D, E, F, and G

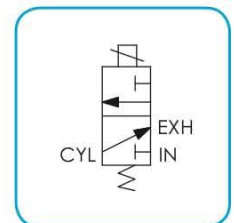
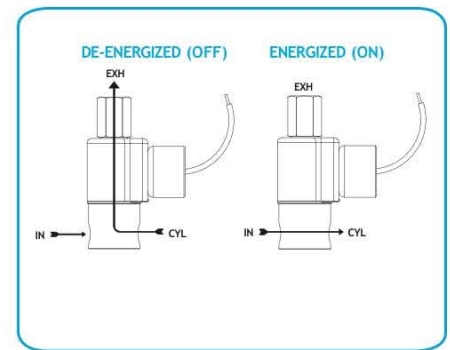
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

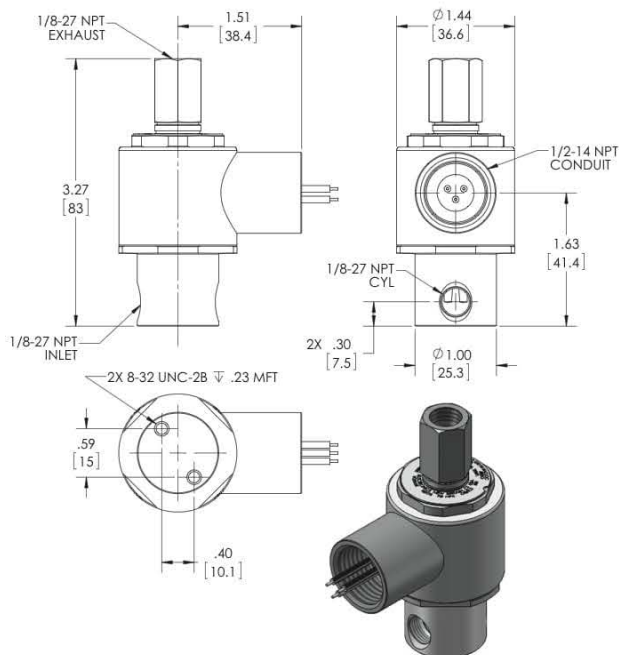
Valve Weight: 0.65 lbs

Repair Kits: See table on proceeding page.

Options: Alternate Port Locations, Metering, Alternate Elastomers, All Stainless Steel Construction*

* Consult representative or factory for options and specifications.





**SERIES ELL50
MODEL ELL53
3WNC PIPED EXHAUST
EXPLOSION PROOF**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.	ORIFICE SIZE		CV FACTOR		VALVE NUMBER
	N.C.	N.O.	N.C.	N.O.	
DC 120	1/32	1/32	.022	.022	ELL53GG8XCCM

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (ELL53GG8XCCM 120/60) REPAIR PACK (5KELL53GGX AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (OELL53GG8DCCM 120/60)

HAZARDOUS LOCATION VALVES



Note: This valve also available as an operator. Refer to following page.

Series 50 EW >> Model EW51

Encapsulated Hazardous Location – 2-Way Normally Open Valve

A UL and CSA listed, low watt, miniature hazardous location valve with minimal space and energy requirements in volatile environments. Air and other fluids, compatible with standard Buna seals. Hot water, steam, gasoline, oils, some hydraulic fluids, and many other media require special seal materials.

- **Smallest hazardous location solenoid valve.**
- **Best ambient and high temperature ratings on the market.**
- **NEMA 4 rating is standard with encapsulated coil.**

OPERATING CONDITIONS

Media: Air, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, oils, some hydraulic fluids, and many media require special seal materials. (Series 50 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 140°F (60°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 16 to 547V AC 60 HZ. and 14.5 to 490V AC 50 HZ. – 6 to 200V DC

Nominal Power: AC – 5.0 Watts DC – 5.0 Watts

Coil Construction: Encapsulated Class F Coil with third wire ground

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: 1/8" NPT (Std.)

Housing: Encapsulated with 1/2 NPT conduit

Listings: Valves are UL listed for Hazardous Locations – Class I, Div 1, Groups A, B, C, and D - Class II, Div 1, Groups E, F, and G; Div 2, Groups A, B, C, D, E, F, and G. "T" Rating as low as T4.

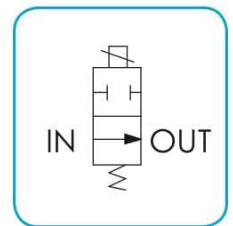
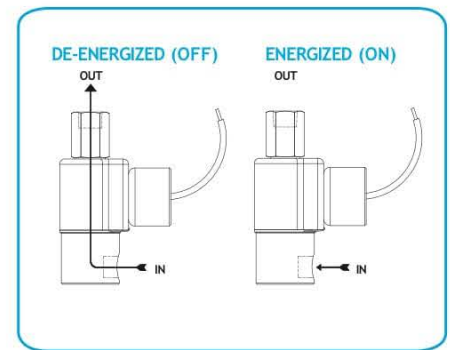
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

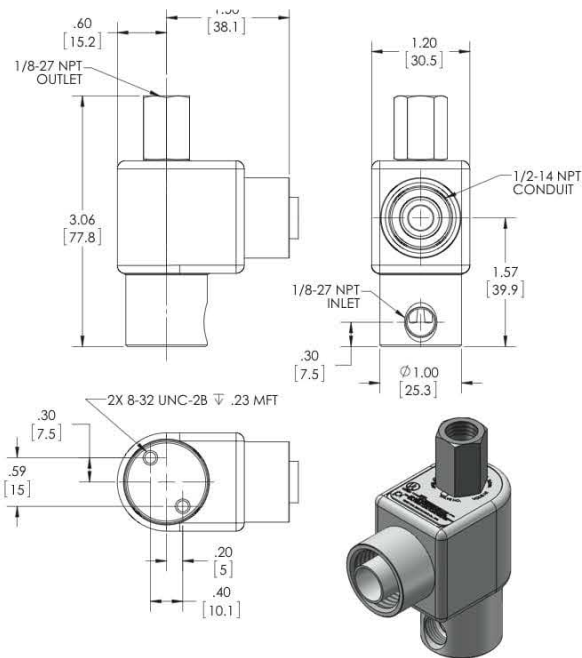
Valve Weight: 0.60 lbs

Repair Packs: See table on proceeding page.

Options: Alternate Port Locations, Metering, Alternate Elastomers, All Stainless Steel Construction*

* Consult representative or factory for options and specifications.





**SERIES 50 EW
MODEL EW51
2WNO
EXPLOSION PROOF**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		ORIFICE SIZE	CV FACTOR	VALVE NUMBER
AC	DC	N.O.	N.O.	
700*	700*	1/32	.020	EW51G8XCCP
500	500	3/64	.048	EW51H8XCCP
200	200	1/16	.075	EW51J8XCCP
135	135	5/64	.134	EW51V8XCCP
100	100	3/32	.150	EW51K8XCCP

* FKM seals not recommended for pressure ratings above 500 PSI

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (EW51J8XCCP 120/60) REPAIR PACK (KEW51J AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (OEW51J8DCCP 120/60)

HAZARDOUS LOCATION VALVES



Note: This valve also available as an operator. Refer to following page.

Series 50 EW >> Model EW52

Encapsulated Hazardous Location – 3-Way Normally Closed Valve

A UL and CSA listed, low watt, miniature hazardous location valve with minimal space and energy requirements in volatile environments. Air and other fluids, compatible with standard Buna seals. Hot water, steam, gasoline, oils, some hydraulic fluids, and many other media require special seal materials.

- **Smallest hazardous location solenoid valve.**
- **Best ambient and high temperature ratings on the market.**
- **NEMA 4 rating is standard with encapsulated coil.**

OPERATING CONDITIONS

Media: Air, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, oils, some hydraulic fluids, and many media require special seal materials. (Series 50 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 140°F (60°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 16 to 547V AC 60 HZ. and 14.5 to 490V AC 50 HZ. – 6 to 200V DC

Nominal Power: AC – 5.0 Watts DC – 5.0 Watts

Coil Construction: Encapsulated Class F Coil with third wire ground

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: 1/8" NPT (Std.)

Housing: Encapsulated with 1/2 NPT conduit

Listings: Valves are UL listed for Hazardous Locations – Class I, Div 1, Groups A, B, C, and D - Class II, Div 1, Groups E, F, and G; Div 2, Groups A, B, C, D, E, F, and G. "T" Rating as low as T4.

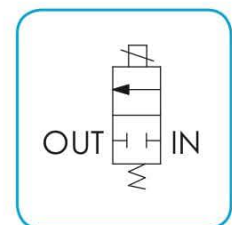
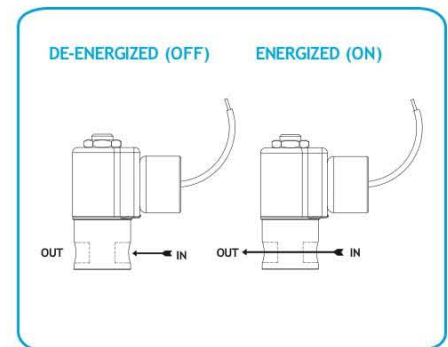
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

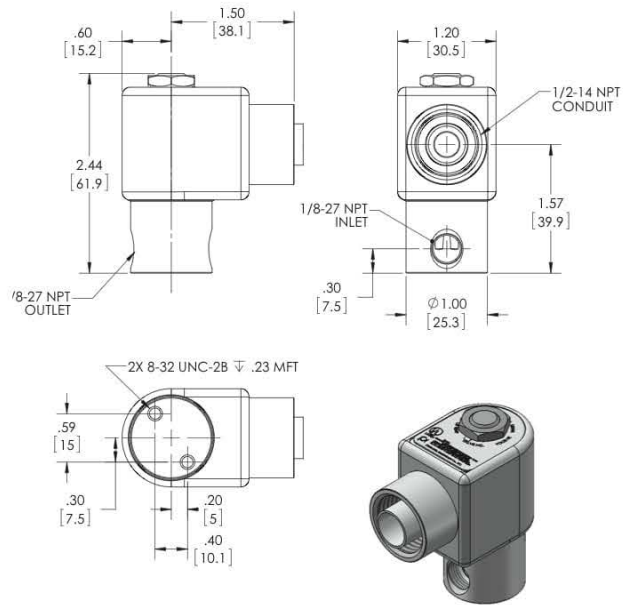
Valve Weight: 0.60 lbs

Repair Packs: See table on proceeding page.

Options: Alternate Port Locations, Metering, Alternate Elastomers, All Stainless Steel Construction*

* Consult representative or factory for options and specifications.





**SERIES 50 EW
MODEL EW52
2WNC
EXPLOSION PROOF**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		ORIFICE SIZE	CV FACTOR	VALVE NUMBER
AC	DC	N.C.	N.C.	
1000*	1000*	1/32	.022	EW52G8DCCP
500	500	3/64	.055	EW52H8DCCP
400	250	1/16	.075	EW52J8DCCP
200	200	5/64	.134	EW52V8DCCP
150	150	3/32	.156	EW52K8DCCP
125	75	1/8	.230	EW52N8DCCP
50	10	5/32	.292	EW52O8DCCP

* FKM seals not recommended for pressure ratings above 500 PSI

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (EW52J8DCCP 120/60) REPAIR PACK (KEW52J AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (OEW52J8DCCP 120/60)

HAZARDOUS LOCATION VALVES



Note: This valve also available as an operator. Refer to following page.

Series 50 EW >> Model EW53

Encapsulated Hazardous Location – 3-Way Normally Closed Valve – Exhaust to Atmosphere

A UL and CSA listed, low watt, miniature hazardous location valve with minimal space and energy requirements in volatile environments. Air and other fluids, compatible with standard Buna seals. Hot water, steam, gasoline, oils, some hydraulic fluids, and many other media require special seal materials.

- **Smallest hazardous location solenoid valve.**
- **Best ambient and high temperature ratings on the market.**
- **NEMA 4 rating is standard with encapsulated coil.**

OPERATING CONDITIONS

Media: Air, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, oils, some hydraulic fluids, and many media require special seal materials. (Series 50 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 140°F (60°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 16 to 547V AC 60 HZ. and 14.5 to 490V AC 50 HZ. – 6 to 200V DC

Nominal Power: AC – 5.0 Watts DC – 5.0 Watts

Coil Construction: Encapsulated Class F Coil with third wire ground

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: 1/8" NPT (Std.)

Housing: Encapsulated with 1/2 NPT conduit

Listings: Valves are UL listed for Hazardous Locations – Class I, Div 1, Groups A, B, C, and D - Class II, Div 1, Groups E, F, and G; Div 2, Groups A, B, C, D, E, F, and G. "T" Rating as low as T4.

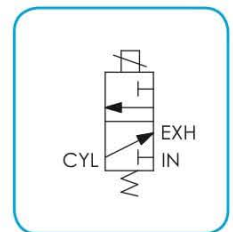
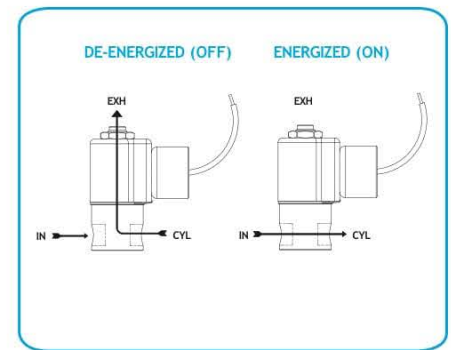
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

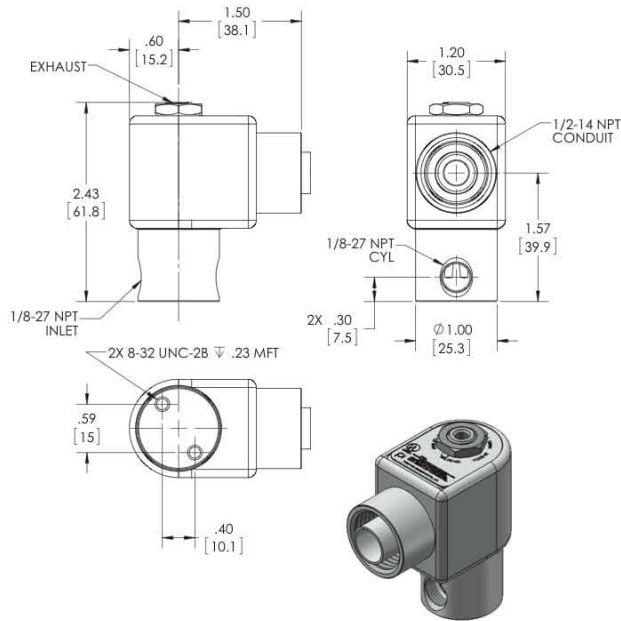
Valve Weight: 0.60 lbs

Repair Packs: See table on proceeding page.

Options: Alternate Port Locations, Metering, Alternate Elastomers, All Stainless Steel Construction*

* Consult representative or factory for options and specifications.





**SERIES 50 EW
MODEL EW53
3WNC EXHAUST TO ATMOSPHERE
EXPLOSION PROOF**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		ORIFICE SIZE		CV FACTOR		VALVE NUMBER
AC	DC	N.C.	N.O.	N.C.	N.O.	
250	250	1/32	1/32	.022	.020	EW53GG8DCCP
150	150	3/64	3/64	.055	.048	EW53HH8DCCP
150	150	3/64	1/16	.055	.075	EW53HJ8DCCP
100	100	1/16	1/16	.075	.075	EW53JJ8DCCP
50	50	3/32	3/32	.150	.150	EW53KK8DCCP

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (EW53JJ8DCCP 120/60) REPAIR PACK (KEW53JJD AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (QEW53JJ8DCCP 120/60)

HAZARDOUS LOCATION VALVES



Note: This valve also available as an operator. Refer to following page.

Series 50 EW >> Model EW53

Encapsulated Hazardous Location – 3-Way Normally Closed Valve – Piped Exhaust

A UL and CSA listed, low watt, miniature hazardous location valve with minimal space and energy requirements in volatile environments. Air and other fluids, compatible with standard Buna seals. Hot water, steam, gasoline, oils, some hydraulic fluids, and many other media require special seal materials.

- **Smallest hazardous location solenoid valve.**
- **Best ambient and high temperature ratings on the market.**
- **NEMA 4 rating is standard with encapsulated coil.**

OPERATING CONDITIONS

Media: Air, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, oils, some hydraulic fluids, and many media require special seal materials. (Series 50 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 140°F (60°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 16 to 547V AC 60 HZ. and 14.5 to 490V AC 50 HZ. – 6 to 200V DC

Nominal Power: AC – 5.0 Watts DC – 5.0 Watts

Coil Construction: Encapsulated Class F Coil with third wire ground

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: 1/8" NPT (Std.)

Housing: Encapsulated with 1/2 NPT conduit

Listings: Valves are UL listed for Hazardous Locations – Class I, Div 1, Groups A, B, C, and D - Class II, Div 1, Groups E, F, and G; Div 2, Groups A, B, C, D, E, F, and G. "T" Rating as low as T4.

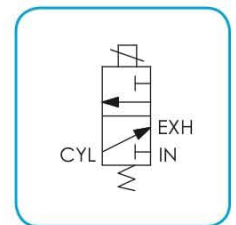
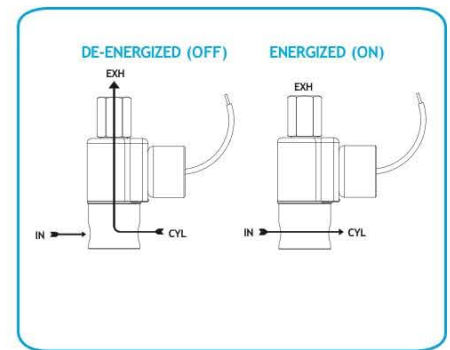
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

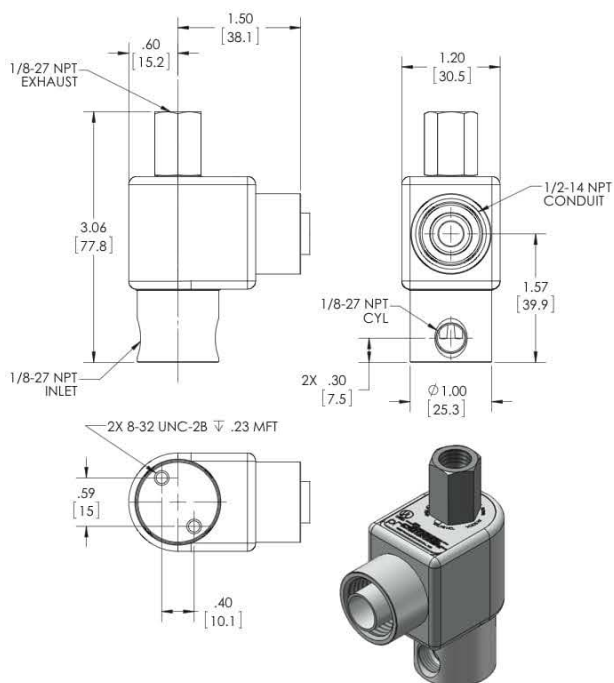
Valve Weight: 0.60 lbs

Repair Packs: See table on proceeding page.

Options: Alternate Port Locations, Metering, Alternate Elastomers, All Stainless Steel Construction*

* Consult representative or factory for options and specifications.





**SERIES 50 EW
MODEL EW53
3WNC PIPED EXHAUST
EXPLOSION PROOF**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		ORIFICE SIZE		CV FACTOR		VALVE NUMBER
AC	DC	N.C.	N.O.	N.C.	N.O.	1/8 NPT PORTS
250	250	1/32	1/32	.022	.020	EW53GG8XCCP
150	150	3/64	3/64	.055	.048	EW53HH8XCCP
150	150	3/64	1/16	.055	.075	EW53HJ8XCCP
100	100	1/16	1/16	.075	.075	EW53JJ8XCCP
50	50	3/32	3/32	.150	.150	EW53KK8XCCP

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (EW53GG8XCCP 120/60) REPAIR PACK (KEW53GGX AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (OEW53GG8DCCP 120/60)

HAZARDOUS LOCATION VALVES



Note: This valve also available as an operator. Refer to following page.

Series 50 EW >> Model EW54

Encapsulated Hazardous Location – 3-Way Normally Open Valve

A UL and CSA listed, low watt, miniature hazardous location valve with minimal space and energy requirements in volatile environments. Air and other fluids, compatible with standard Buna seals. Hot water, steam, gasoline, oils, some hydraulic fluids, and many other media require special seal materials.

- **Smallest hazardous location solenoid valve.**
- **Best ambient and high temperature ratings on the market.**
- **NEMA 4 rating is standard with encapsulated coil.**

OPERATING CONDITIONS

Media: Air, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, oils, some hydraulic fluids, and many media require special seal materials. (Series 50 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 140°F (60°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 16 to 547V AC 60 HZ. and 14.5 to 490V AC 50 HZ. – 6 to 200V DC

Nominal Power: AC – 5.0 Watts DC – 5.0 Watts

Coil Construction: Encapsulated Class F Coil with third wire ground

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: 1/8" NPT (Std.)

Housing: Encapsulated with 1/2 NPT conduit

Listings: Valves are UL listed for Hazardous Locations – Class I, Div 1, Groups A, B, C, and D - Class II, Div 1, Groups E, F, and G; Div 2, Groups A, B, C, D, E, F, and G. "T" Rating as low as T4.

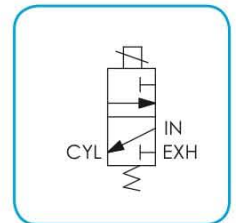
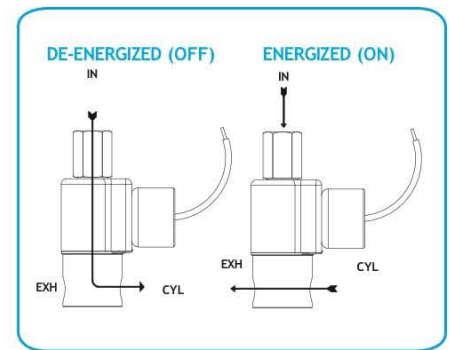
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

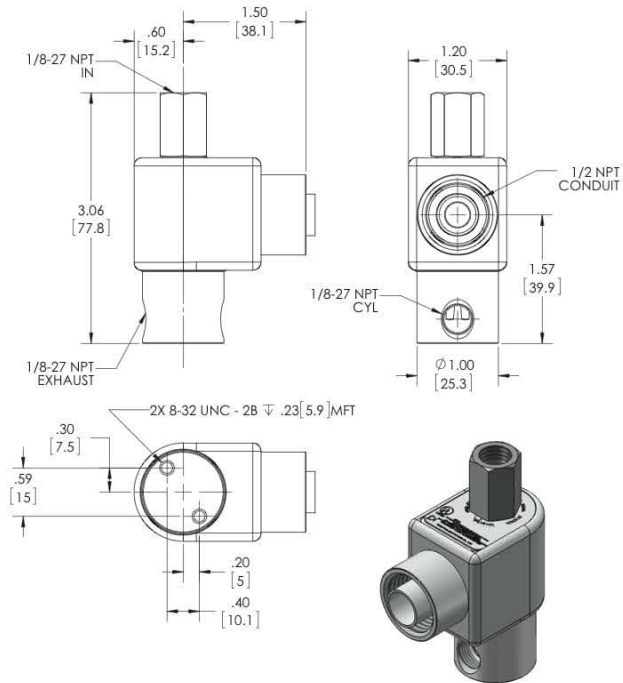
Valve Weight: 0.60 lbs

Repair Packs: See table on proceeding page.

Options: Alternate Port Locations, Metering, Alternate Elastomers, All Stainless Steel Construction*

* Consult representative or factory for options and specifications.





**SERIES 50 EW
MODEL EW54
3WNO
EXPLOSION PROOF**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		ORIFICE SIZE		CV FACTOR		VALVE NUMBER
AC	DC	N.O.	N.C.	N.O.	N.C.	
200	150	1/32	1/32	.020	.022	EW54GG8XDCCP
125	90	3/64	3/64	.048	.055	EW54HH8XDCCP
100	60	1/16	1/16	.075	.075	EW54JJ8XDCCP
75	40	5/64	5/64	.134	.134	EW54VV8XDCCP
50	25	3/32	3/32	.150	.150	EW54KK8XDCCP

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (EW54JJ8XDCCP 120/60) REPAIR PACK (KEW54JJ AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (QEW54JJ8XDCCP 120/60)

HAZARDOUS LOCATION VALVES



Note: This valve also available as an operator. Refer to following page.

Series 50 EW >> Model EW55

Encapsulated Hazardous Location – 3-Way Directional Control Valve

A UL and CSA listed, low watt, miniature hazardous location valve with minimal space and energy requirements in volatile environments. Air and other fluids, compatible with standard Buna seals. Hot water, steam, gasoline, oils, some hydraulic fluids, and many other media require special seal materials.

- **Smallest hazardous location solenoid valve.**
- **Best ambient and high temperature ratings on the market.**
- **NEMA 4 rating is standard with encapsulated coil.**

OPERATING CONDITIONS

Media: Air, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, oils, some hydraulic fluids, and many media require special seal materials. (Series 50 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 140°F (60°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 16 to 547V AC 60 HZ. and 14.5 to 490V AC 50 HZ. – 6 to 200V DC

Nominal Power: AC – 5.0 Watts DC – 5.0 Watts

Coil Construction: Encapsulated Class F Coil with third wire ground

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: 1/8" NPT (Std.)

Housing: Encapsulated with 1/2 NPT conduit

Listings: Valves are UL listed for Hazardous Locations – Class I, Div 1, Groups A, B, C, and D - Class II, Div 1, Groups E, F, and G; Div 2, Groups A, B, C, D, E, F, and G. "T" Rating as low as T4.

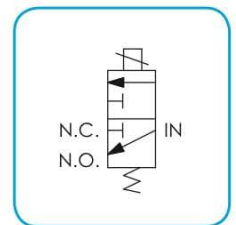
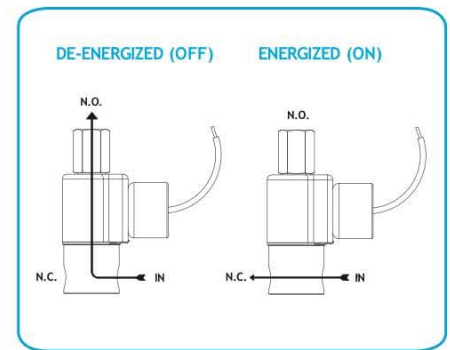
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

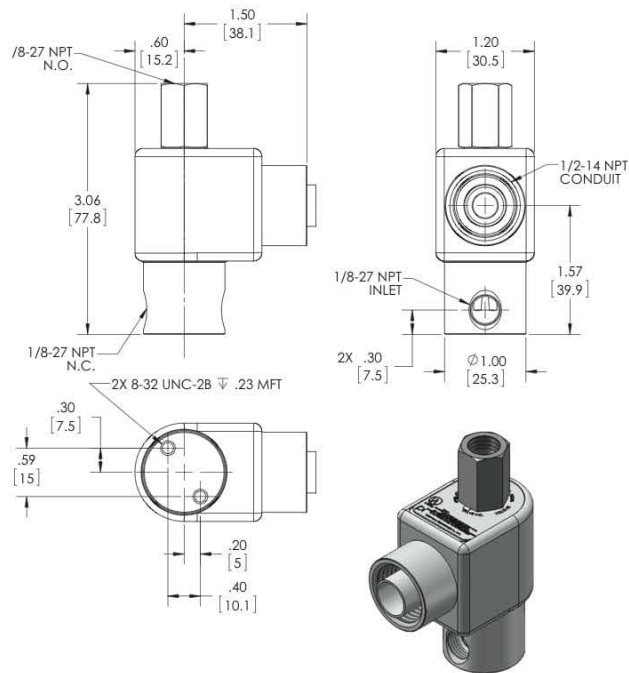
Valve Weight: 0.60 lbs

Repair Packs: See table on proceeding page.

Options: Alternate Port Locations, Metering, Alternate Elastomers, All Stainless Steel Construction*

* Consult representative or factory for options and specifications.





**SERIES 50 EW
MODEL EW55
3-WAY DIRECTIONAL CONTROL
EXPLOSION PROOF**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		ORIFICE SIZE		CV FACTOR		VALVE NUMBER
AC	DC	N.C.	N.O.	N.C.	N.O.	
300	225	1/32	1/32	.022	.020	EW55GG8XDCCP
250	80	3/64	3/64	.055	.048	EW55HH8XDCCP
125	40	1/16	1/16	.075	.075	EW55JJ8XDCCP
70	25	5/64	5/64	.134	.134	EW55VV8XDCCP
55	20	3/32	3/32	.150	.150	EW55KK8XDCCP

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (EW55JJ8XDCCP 120/60) REPAIR PACK (KEW55JJ AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (QEW55JJ8XDCCP 120/60)

HAZARDOUS LOCATION VALVES



Note: This valve also available as an operator. Refer to following page.

Series 50 EW >> Model EW56

Encapsulated Hazardous Location – 3-Way Multi-Purpose Valve

A UL and CSA listed, low watt, miniature hazardous location valve with minimal space and energy requirements in volatile environments. Air and other fluids, compatible with standard Buna seals. Hot water, steam, gasoline, oils, some hydraulic fluids, and many other media require special seal materials.

- **Smallest hazardous location solenoid valve.**
- **Best ambient and high temperature ratings on the market.**
- **NEMA 4 rating is standard with encapsulated coil.**

OPERATING CONDITIONS

Media: Air, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, oils, some hydraulic fluids, and many media require special seal materials. (Series 50 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 140°F (60°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 16 to 547V AC 60 HZ. and 14.5 to 490V AC 50 HZ. – 6 to 200V DC

Nominal Power: AC – 5.0 Watts DC – 5.0 Watts

Coil Construction: Encapsulated Class F Coil with third wire ground

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: 1/8" NPT (Std.)

Housing: Encapsulated with 1/2 NPT conduit

Listings: Valves are UL listed for Hazardous Locations – Class I, Div 1, Groups A, B, C, and D - Class II, Div 1, Groups E, F, and G; Div 2, Groups A, B, C, D, E, F, and G. "T" Rating as low as T4.

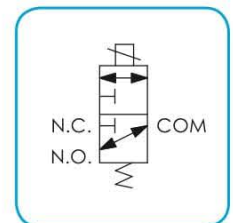
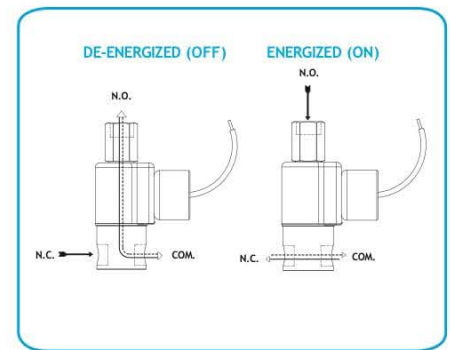
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

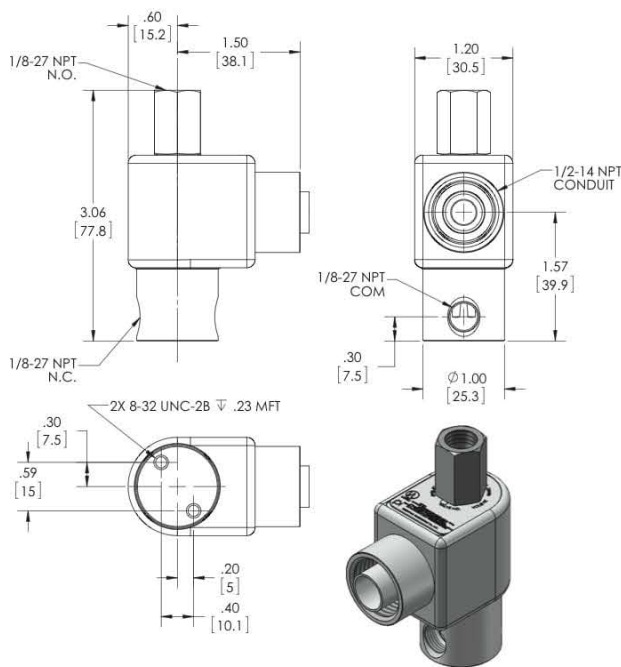
Valve Weight: 0.60 lbs

Repair Packs: See table on proceeding page.

Options: Alternate Port Locations, Metering, Alternate Elastomers, All Stainless Steel Construction*

* Consult representative or factory for options and specifications.





**SERIES 50 EW
MODEL EW56
3-WAY MULTI-PURPOSE
EXPLOSION PROOF**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		ORIFICE SIZE		CV FACTOR		VALVE NUMBER
AC	DC	N.C.	N.O.	N.C.	N.O.	
125	100	1/32	1/32	.022	.020	EW56GG8XDCCP
100	40	3/64	3/64	.055	.048	EW56HH8XDCCP
65	20	1/16	1/16	.075	.075	EW56JJ8XDCCP
45	15	5/64	5/64	.134	.134	EW56VV8XDCCP
40	10	3/32	3/32	.150	.150	EW56KK8XDCCP

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (EW56JJ8XDCCP 120/60) REPAIR PACK (5KEW56JJ AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (QEW56JJ8XDCCP 120/60)

HAZARDOUS LOCATION VALVES



Note: This valve also available as an operator. Refer to following page.

Series 50 ELW >> Model ELW51

Encapsulated Low Wattage Hazardous Location – 2-Way Normally Open Valve

A UL and CSA listed, low watt, miniature hazardous location valve with minimal space and energy requirements in volatile environments. Air and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, oils, some hydraulic fluids, and many other media require special seal materials.

- **Smallest hazardous location solenoid valve.**
- **Best ambient and high temperature ratings on the market.**
- **NEMA 4 rating is standard with encapsulated coil.**

OPERATING CONDITIONS

Media: Air and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, oils, some hydraulic fluids, and many media require special seal materials. (Series 50 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 140°F (60°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 12 to 370V AC 60 HZ. and 10.5 to 345V AC 50 HZ. – 3.5 to 120V DC

Nominal Power: AC – 1.8 Watts DC – 1.8 Watts

Coil Construction: Encapsulated Class F Coil with third wire ground

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: 1/8" NPT (Std.)

Housing: Encapsulated with 1/2 NPT conduit

Listings: Valves are UL listed for Hazardous Locations – Class I, Div 1, Groups A, B, C, and D - Class II, Div 1, Groups E, F, and G; Div 2, Groups A, B, C, D, E, F, and G. "T" Rating as low as T5.

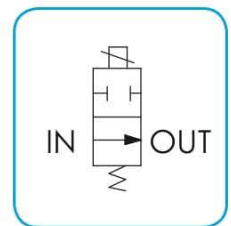
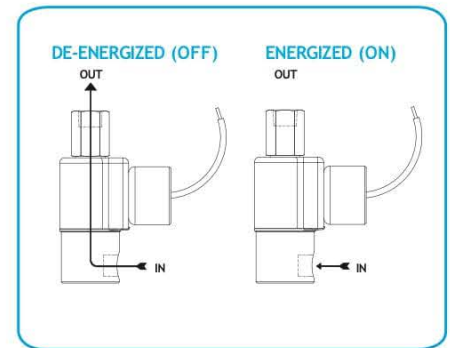
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

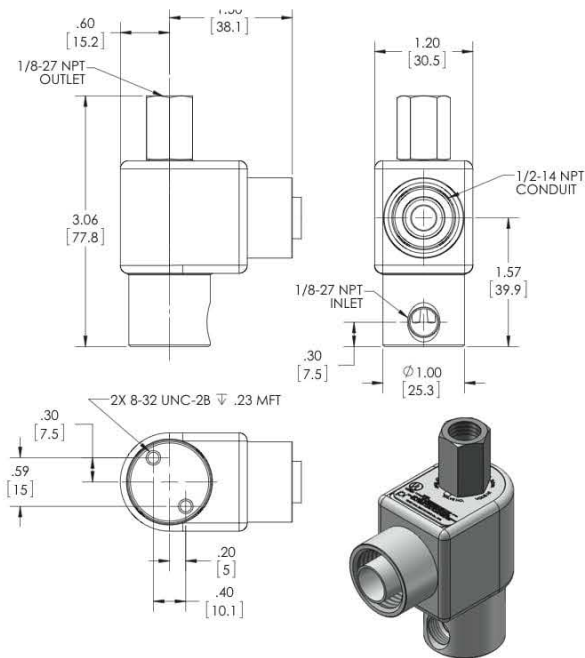
Valve Weight: 0.60 lbs

Repair Packs: See table on proceeding page.

Options: Alternate Port Locations, Metering, Alternate Elastomers, All Stainless Steel Construction*

* Consult representative or factory for options and specifications.





**SERIES 50 ELW
MODEL ELW51
2WNO
EXPLOSION PROOF**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		MAX. OPER. PRESS. DIFF.		ORIFICE SIZE	CV FACTOR	VALVE NUMBER
GAS		LIQUID				
AC	DC	AC	DC	N.O.	N.O.	
300	200	300	200	1/32	.020	ELW51G8XCCP
270	120	120	65	3/64	.048	ELW51H8XCCP
135	50	40	30	1/16	.075	ELW51J8XCCP
70	35	30	20	5/64	.134	ELW51V8XCCP
55	30	25	15	3/32	.150	ELW51K8XCCP

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (ELW51J8XCCPL 120/60) REPAIR PACK (KELW51JL AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (OELW51J8DCCPL 120/60)

HAZARDOUS LOCATION VALVES



Note: This valve also available as an operator. Refer to following page.

Series 50 ELW >> Model ELW52

Encapsulated Low Wattage Hazardous Location – 2-Way Normally Closed Valve

A UL and CSA listed, low watt, miniature hazardous location valve with minimal space and energy requirements in volatile environments. Air and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, oils, some hydraulic fluids, and many other media require special seal materials.

- **Smallest hazardous location solenoid valve.**
- **Best ambient and high temperature ratings on the market.**
- **NEMA 4 rating is standard with encapsulated coil.**

OPERATING CONDITIONS

Media: Air and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, oils, some hydraulic fluids, and many media require special seal materials. (Series 50 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 140°F (60°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 12 to 370V AC 60 HZ. and 10.5 to 345V AC 50 HZ. – 3.5 to 120V DC

Nominal Power: AC – 1.8 Watts DC – 1.8 Watts

Coil Construction: Encapsulated Class F Coil with third wire ground

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: 1/8" NPT (Std.)

Housing: Encapsulated with 1/2 NPT conduit

Listings: Valves are UL listed for Hazardous Locations – Class I, Div 1, Groups A, B, C, and D - Class II, Div 1, Groups E, F, and G; Div 2, Groups A, B, C, D, E, F, and G. "T" Rating as low as T5.

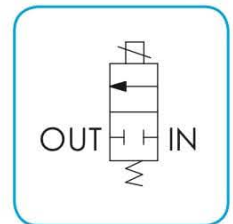
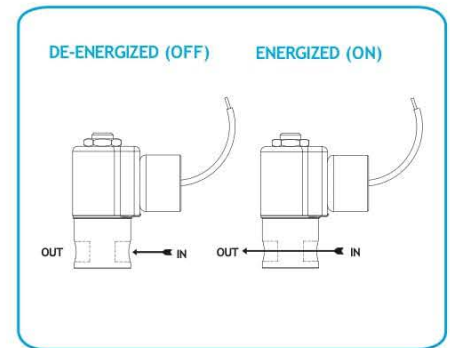
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

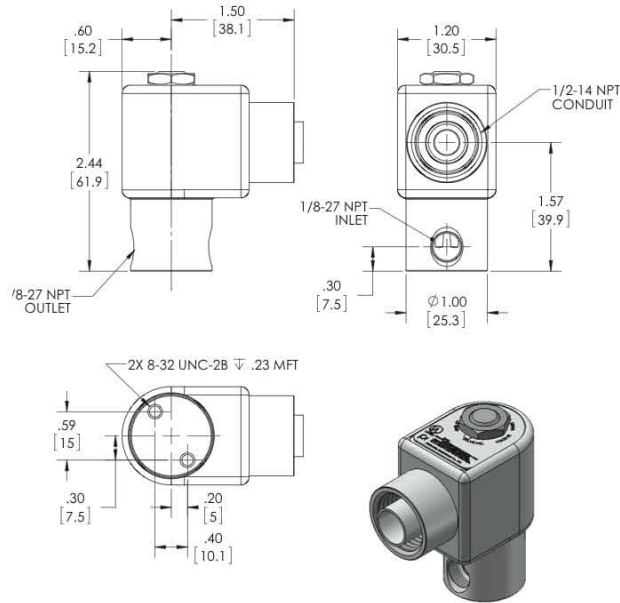
Valve Weight: 0.60 lbs

Repair Packs: See table on proceeding page.

Options: Alternate Port Locations, Metering, Alternate Elastomers, All Stainless Steel Construction*

* Consult representative or factory for options and specifications.





**SERIES 50 ELW
MODEL ELW52
2WNC
EXPLOSION PROOF**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		LIQUID		ORIFICE SIZE N.O.	CV FACTOR N.C.	VALVE NUMBER
GAS AC	DC	AC	DC			
600*	200	600	200	1/32	.022	ELW52G8DCCP
250	80	250	80	3/64	.055	ELW52H8DCCP
150	50	150	50	1/16	.075	ELW52J8DCCP
100	25	100	25	5/64	.134	ELW52V8DCCP
85	20	85	20	3/32	.156	ELW52K8DCCP
50		50		1/8	.230	ELW52N8DCCP
15		15		5/32	.292	ELW52O8DCCP

* FKM seals not recommended for pressure above 500 psi.

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (ELW52J8DCCP 120/60) REPAIR PACK (KELW52J AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (OELW52J8DCCP 120/60)

HAZARDOUS LOCATION VALVES



Note: This valve also available as an operator. Refer to following page.

Series 50 ELW >> Model ELW53

Encapsulated Low Wattage Hazardous Location – 3-Way Normally Closed Valve – Exhaust to Atmosphere

A UL and CSA listed, low watt, miniature hazardous location valve with minimal space and energy requirements in volatile environments. Air and other fluids, compatible with standard Buna seals. Hot water, steam, gasoline, oils, some hydraulic fluids, and many other media require special seal materials.

- **Smallest hazardous location solenoid valve.**
- **Best ambient and high temperature ratings on the market.**
- **NEMA 4 rating is standard with encapsulated coil.**

OPERATING CONDITIONS

Media: Air, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, oils, some hydraulic fluids, and many media require special seal materials. (Series 50 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 140°F (60°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 12 to 370V AC 60 HZ. and 10.5 to 345V AC 50 HZ. – 3.5 to 120V DC

Nominal Power: AC – 1.8 Watts DC – 1.8 Watts

Coil Construction: Encapsulated Class F Coil with third wire ground

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: 1/8" NPT (Std.)

Housing: Encapsulated with 1/2 NPT conduit

Listings: Valves are UL listed for Hazardous Locations – Class I, Div 1, Groups A, B, C, and D - Class II, Div 1, Groups E, F, and G; Div 2, Groups A, B, C, D, E, F, and G. "T" Rating as low as T5.

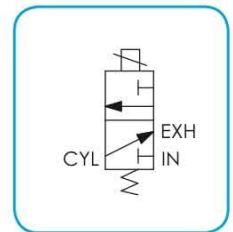
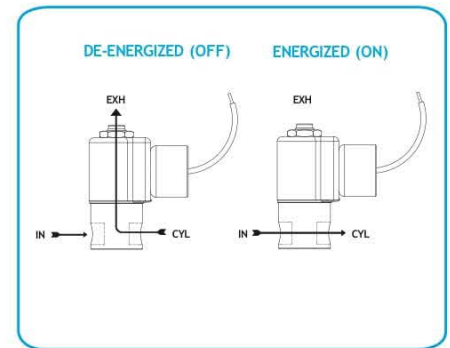
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

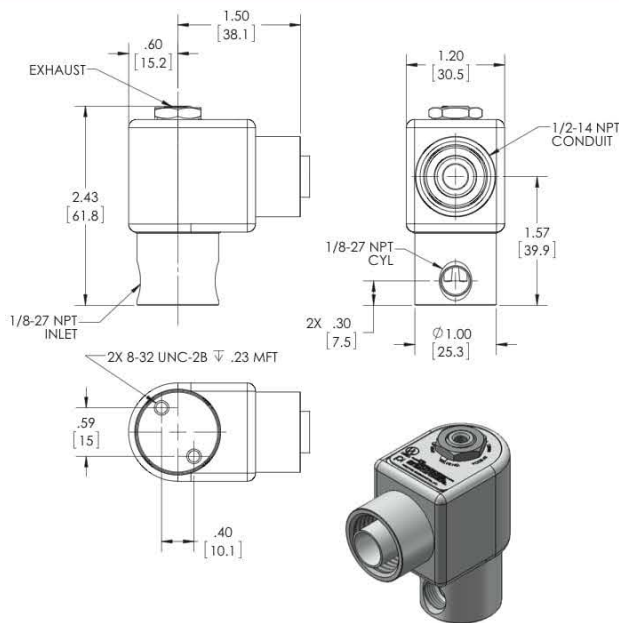
Valve Weight: 0.60 lbs

Repair Packs: See table on proceeding page.

Options: Alternate Port Locations, Metering, Alternate Elastomers, All Stainless Steel Construction*

* Consult representative or factory for options and specifications.





**SERIES 50 ELW
MODEL ELW53
3WNC EXHAUST TO ATMOSPHERE
EXPLOSION PROOF**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		ORIFICE SIZE		CV FACTOR		VALVE NUMBER		
GAS		LIQUID		N.C.	N.O.	N.C.	N.O.	
AC	DC	AC	DC	N.C.	N.O.	N.C.	N.O.	
215	135	215	135	1/32	1/32	.022	.020	ELW53GG8DCCP
215	120	120	65	1/32	3/64	.022	.048	ELW53GH8DCCP
135	50	40	30	1/32	1/16	.022	.075	ELW53GJ8DCCP
70	35	30	20	1/32	5/64	.022	.134	ELW53GV8DCCP
55	30	25	15	1/32	3/32	.022	.150	ELW53GK8DCCP
120	70	120	65	3/64	3/64	.055	.048	ELW53HH8DCCP
120	50	40	30	3/64	1/16	.055	.075	ELW53HJ8DCCP
70	35	30	20	3/64	5/64	.055	.134	ELW53HV8DCCP
55	30	25	15	3/64	3/32	.055	.150	ELW53HK8DCCP
85	40	40	30	1/16	1/16	.075	.075	ELW53JJ8DCCP
70	35	30	20	1/16	5/64	.075	.134	ELW53JV8DCCP
55	30	25	15	1/16	3/32	.075	.150	ELW53JK8DCCP
50	30	30	20	5/64	5/64	.134	.134	ELW53VV8DCCP
50	30	25	15	5/64	3/32	.134	.150	ELW53VK8DCCP
35	20	25	15	3/32	3/32	.156	.150	ELW53KK8DCCP

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (ELW53JJ8DCCPL 120/60) REPAIR PACK (KELW53JJDL AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (OELW53JJ8DCCPL 120/60)

HAZARDOUS LOCATION VALVES



Note: This valve also available as an operator. Refer to following page.

Series 50 ELW >> Model ELW53

Encapsulated Low Wattage Hazardous Location – 3-Way Normally Closed Valve – Piped Exhaust

A UL and CSA listed, low watt, miniature hazardous location valve with minimal space and energy requirements in volatile environments. Air and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, oils, some hydraulic fluids, and many other media require special seal materials.

- **Smallest hazardous location solenoid valve.**
- **Best ambient and high temperature ratings on the market.**
- **NEMA 4 rating is standard with encapsulated coil.**

OPERATING CONDITIONS

Media: Air and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, oils, some hydraulic fluids, and many media require special seal materials. (Series 50 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 140°F (60°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 12 to 370V AC 60 HZ. and 10.5 to 345V AC 50 HZ. – 3.5 to 120V DC

Nominal Power: AC – 1.8 Watts DC – 1.8 Watts

Coil Construction: Encapsulated Class F Coil with third wire ground

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: 1/8" NPT (Std.)

Housing: Encapsulated with 1/2 NPT conduit

Listings: Valves are UL listed for Hazardous Locations – Class I, Div 1, Groups A, B, C, and D - Class II, Div 1, Groups E, F, and G; Div 2, Groups A, B, C, D, E, F, and G. "T" Rating as low as T5.

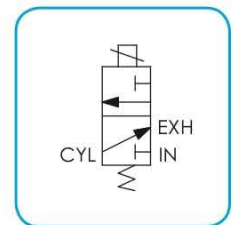
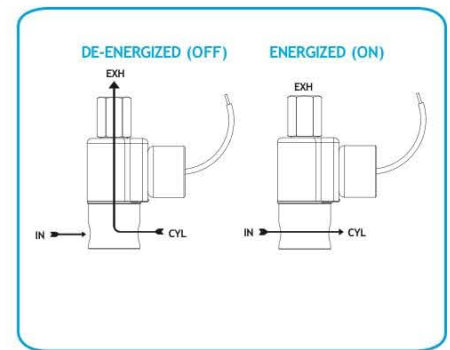
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

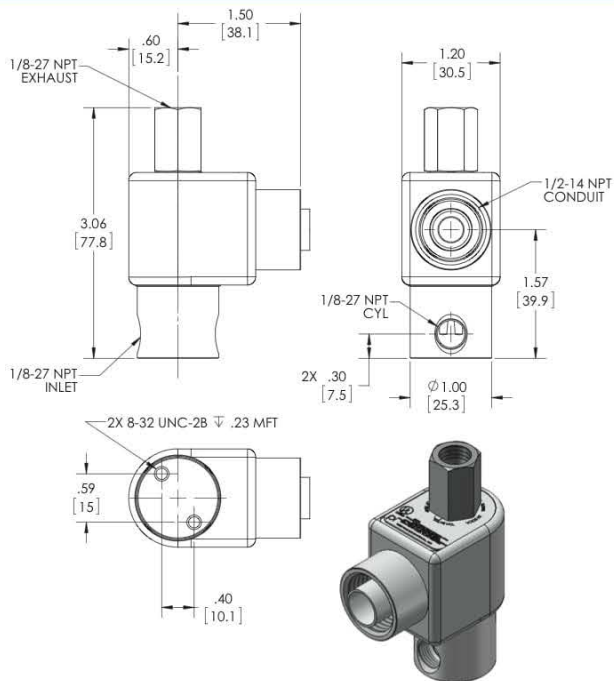
Valve Weight: 0.60 lbs

Repair Packs: See table on proceeding page.

Options: Alternate Port Locations, Metering, Alternate Elastomers, All Stainless Steel Construction*

* Consult representative or factory for options and specifications.





**SERIES 50 ELW
MODEL ELW53
3WNC PIPED EXHAUST
EXPLOSION PROOF**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		ORIFICE SIZE		CV FACTOR		VALVE NUMBER
GAS	LIQUID	N.C.	N.O.	N.C.	N.O.	
AC	DC	AC	DC	N.C.	N.O.	
215	135	215	135	1/32	1/32	ELW53GG8XCCP
215	120	120	65	1/32	3/64	ELW53GH8XCCP
135	50	40	30	1/32	1/16	ELW53GJ8XCCP
70	35	30	20	1/32	5/64	ELW53GV8XCCP
55	30	25	15	1/32	3/32	ELW53GK8XCCP
120	70	120	65	3/64	3/64	ELW53HH8XCCP
120	50	40	30	3/64	1/16	ELW53HJ8XCCP
70	35	30	20	3/64	5/64	ELW53HV8XCCP
55	30	25	15	3/64	3/32	ELW53HK8XCCP
85	40	40	30	1/16	1/16	ELW53JJ8XCCP
70	35	30	20	1/16	5/64	ELW53JV8XCCP
55	30	25	15	1/16	3/32	ELW53JK8XCCP
50	30	30	20	5/64	5/64	ELW53VV8XCCP
50	30	25	15	5/64	3/32	ELW53VK8XCCP
35	20	25	15	3/32	3/32	ELW53KK8XCCP

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (ELW53JJ8XCCPL 120/60) REPAIR PACK (KELW53JJXL AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (OELW53JJ8DCCPL 120/60)

HAZARDOUS LOCATION VALVES



Note: This valve also available as an operator. Refer to following page.

Series 50 ELLW >> Model ELLW52

Encapsulated Very Low Wattage Hazardous Location – 2-Way Normally Closed Valve

A UL and CSA listed, low watt, miniature hazardous location valve with minimal space and energy requirements in volatile environments. Air and other fluids, compatible with standard Buna seals. Hot water, steam, gasoline, oils, some hydraulic fluids, and many other media require special seal materials.

- **Smallest hazardous location solenoid valve.**
- **Best ambient and high temperature ratings on the market.**
- **NEMA 4 rating is standard with encapsulated coil.**

OPERATING CONDITIONS

Media: Air, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, oils, some hydraulic fluids, and many media require special seal materials. (Series 50 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 140°F (60°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 1.9 to 63V DC

Nominal Power: DC – .50 Watts

Coil Construction: Encapsulated Class F Coil with third wire ground

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: 1/8" NPT (Std.)

Housing: Encapsulated with 1/2 NPT conduit

Listings: Valves are UL listed for Hazardous Locations – Class I, Div 1, Groups A, B, C, and D - Class II, Div 1, Groups E, F, and G; Div 2, Groups A, B, C, D, E, F, and G. "T" Rating as low as T4.

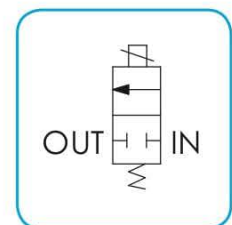
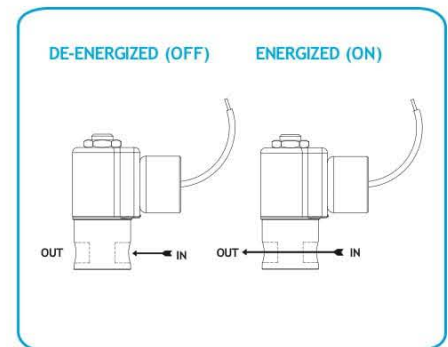
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

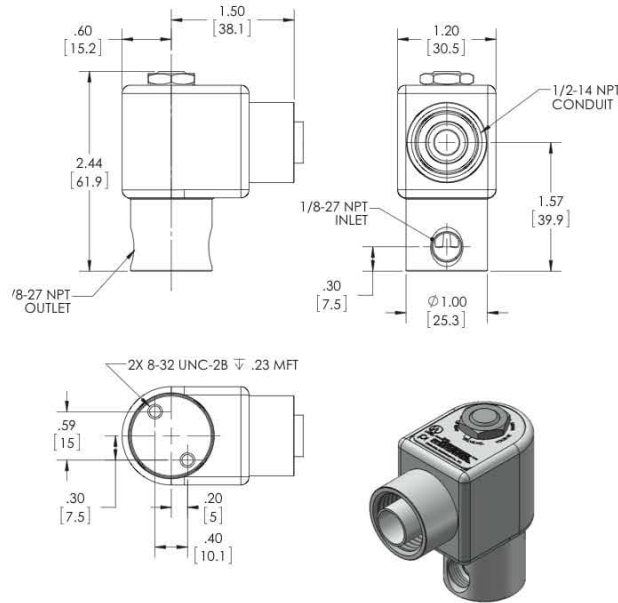
Valve Weight: 0.60 lbs

Repair Packs: See table on proceeding page.

Options: Alternate Port Locations, Metering, Alternate Elastomers, All Stainless Steel Construction*

* Consult representative or factory for options and specifications.





**SERIES 50 ELLW
MODEL ELLW52
2WNC
EXPLOSION PROOF**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF. DC GAS ONLY	ORIFICE SIZE N.C.	CV FACTOR N.C.	VALVE NUMBER
120	1/32	.022	ELLW52G8DCCP

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (ELLW52G8DCCP 120/60) REPAIR PACK (KELLW52G AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (OELLW52G8DCCP 120/60)

HAZARDOUS LOCATION VALVES



Note: This valve also available as an operator. Refer to following page.

Series 50 ELLW >> Model ELLW53

Encapsulated Very Low Wattage Hazardous Location – 3-Way Normally Closed Valve – Exhaust to Atmosphere

A UL and CSA listed, low watt, miniature hazardous location valve with minimal space and energy requirements in volatile environments. Air and other fluids, compatible with standard Buna seals. Hot water, steam, gasoline, oils, some hydraulic fluids, and many other media require special seal materials.

- **Smallest hazardous location solenoid valve.**
- **Best ambient and high temperature ratings on the market.**
- **NEMA 4 rating is standard with encapsulated coil.**

OPERATING CONDITIONS

Media: Air, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, oils, some hydraulic fluids, and many media require special seal materials. (Series 50 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 140°F (60°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 1.9 to 63V DC

Nominal Power: DC – .50 Watts

Coil Construction: Encapsulated Class F Coil with third wire ground

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: 1/8" NPT (Std.)

Housing: Encapsulated with 1/2 NPT conduit

Listings: Valves are UL listed for Hazardous Locations – Class I, Div 1, Groups A, B, C, and D - Class II, Div 1, Groups E, F, and G; Div 2, Groups A, B, C, D, E, F, and G. "T" Rating as low as T4.

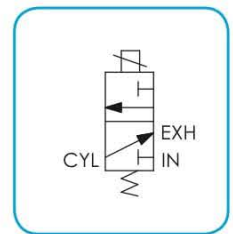
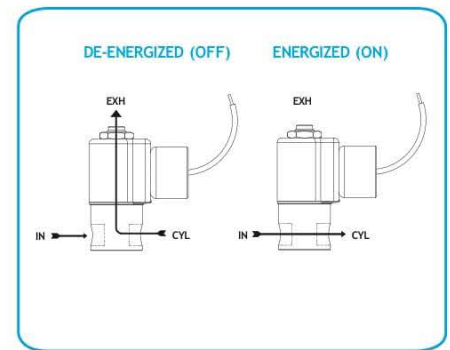
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

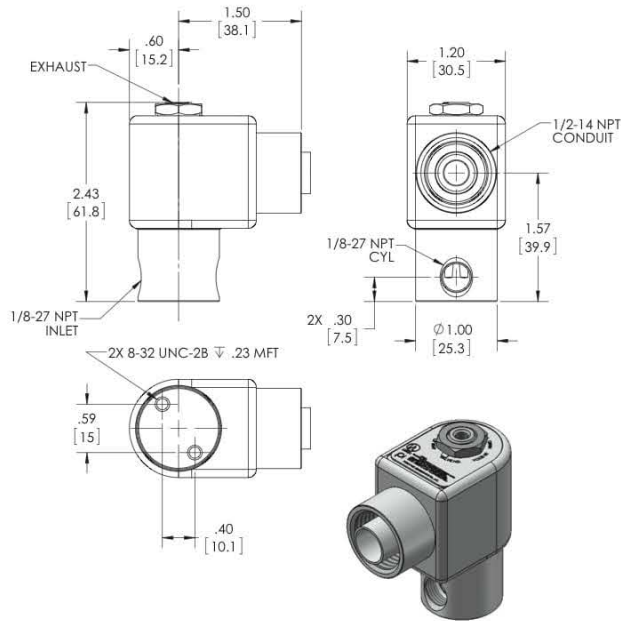
Valve Weight: 0.60 lbs

Repair Packs: See table on proceeding page.

Options: Alternate Port Locations, Metering, Alternate Elastomers, All Stainless Steel Construction*

* Consult representative or factory for options and specifications.





**SERIES 50 ELLW
MODEL ELLW53
3WNC EXHAUST TO ATMOSPHERE
EXPLOSION PROOF**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF. DC GAS ONLY	ORIFICE SIZE		CV FACTOR		VALVE NUMBER
	N.C.	N.O.	N.C.	N.O.	
120	1/32	1/32	.022	.020	ELLW53GG8DCCP

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (ELLW53GGDCCP 120/60) REPAIR PACK (KELLW53GGD AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (OELLW53GGDCCP 120/60)

HAZARDOUS LOCATION VALVES



Note: This valve also available as an operator. Refer to following page.

Series 50 ELLW >> Model ELLW53

Encapsulated Very Low Wattage Hazardous Location – 3-Way Normally Closed Valve – Piped Exhaust

A UL and CSA listed, low watt, miniature hazardous location valve with minimal space and energy requirements in volatile environments. Air and other fluids, compatible with standard Buna seals. Hot water, steam, gasoline, oils, some hydraulic fluids, and many other media require special seal materials.

- **Smallest hazardous location solenoid valve.**
- **Best ambient and high temperature ratings on the market.**
- **NEMA 4 rating is standard with encapsulated coil.**

OPERATING CONDITIONS

Media: Air, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, oils, some hydraulic fluids, and many media require special seal materials. (Series 50 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 140°F (60°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 1.9 to 63V DC

Nominal Power: DC – .50 Watts

Coil Construction: Encapsulated Class F Coil with third wire ground

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: 1/8" NPT (Std.)

Housing: Encapsulated with 1/2 NPT conduit

Listings: Valves are UL listed for Hazardous Locations – Class I, Div 1, Groups A, B, C, and D - Class II, Div 1, Groups E, F, and G; Div 2, Groups A, B, C, D, E, F, and G. "T" Rating as low as T4.

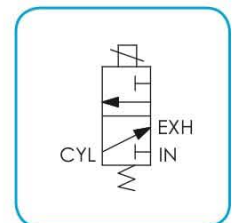
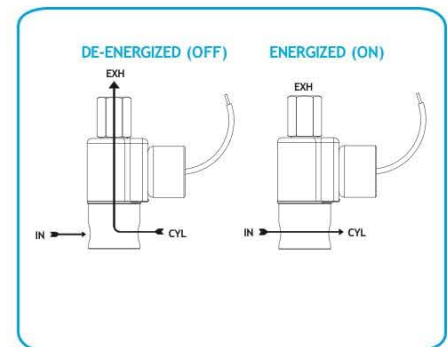
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

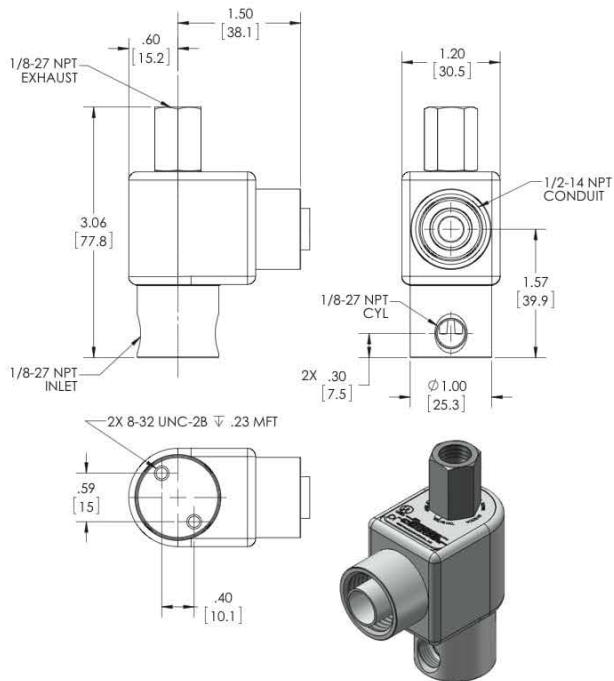
Valve Weight: 0.60 lbs

Repair Packs: See table on proceeding page.

Options: Alternate Port Locations, Metering, Alternate Elastomers, All Stainless Steel Construction*

* Consult representative or factory for options and specifications.





**SERIES 50 ELLW
MODEL ELLW53
3WNC PIPED EXHAUST
EXPLOSION PROOF**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF. DC GAS ONLY	ORIFICE SIZE		CV FACTOR		VALVE NUMBER
	N.C.	N.O.	N.C.	N.O.	
120	1/32	1/32	.022	.020	ELLW53GG8XCCP

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (ELLW53GGXCCP 120/60) REPAIR PACK (KELLW53GGX AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (OELLW53GGDCCP 120/60)

HAZARDOUS LOCATION VALVES



Note: This valve also available as an operator. Refer to following page.

Series 20 >> Model E21

Hazardous Location – 2-Way Normally Open Valve

Peter Paul explosion proof valves are used where fire or explosion hazards exist due to the presence of flammable gases or vapors, flammable liquids, combustible dust, or easily ignitable fibers. Hazardous Location valves are recommended, or in some cases compulsory, where a high level of protection from explosion is required.

- Heavy duty and made of stainless steel.
- A real workhorse with proven performance.
- It has the greatest amount of options available of all the valves.
- Wide range of orifice sizes from 1/32" to 1/8".

OPERATING CONDITIONS

Media: Air, water, and other fluids compatible with standard Buna seals. Hot water, steam gasoline, and many oils require special seal materials. (Series 20 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 6 to 825V AC 60 HZ. and 5 to 720V AC 50 HZ. – 1.8 to 265V DC

Nominal Power: AC – 7.3 Watts DC – 9.5 Watts

Coil Construction: Molded Class F with third wire ground (Std.), Class H or Potted (Opt.)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: 1/8" and 1/4" NPT (others ports available).

Housing: Flame-Proof construction with 1/2" NPT conduit

Listings: Valves are UL listed and CSA certified for Hazardous Locations – Class I, Div 1, Group C and D - Class II, Div 1, Group E, F, and G; Div 2, Groups A, B, C, D, E, F, and G.

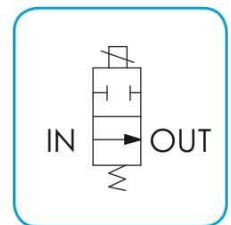
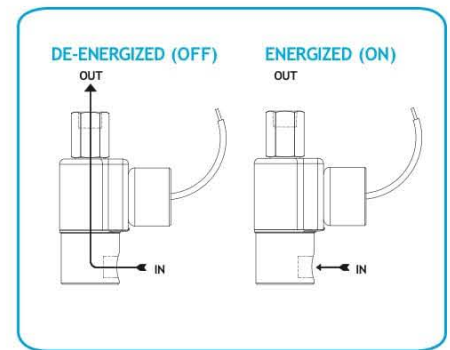
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

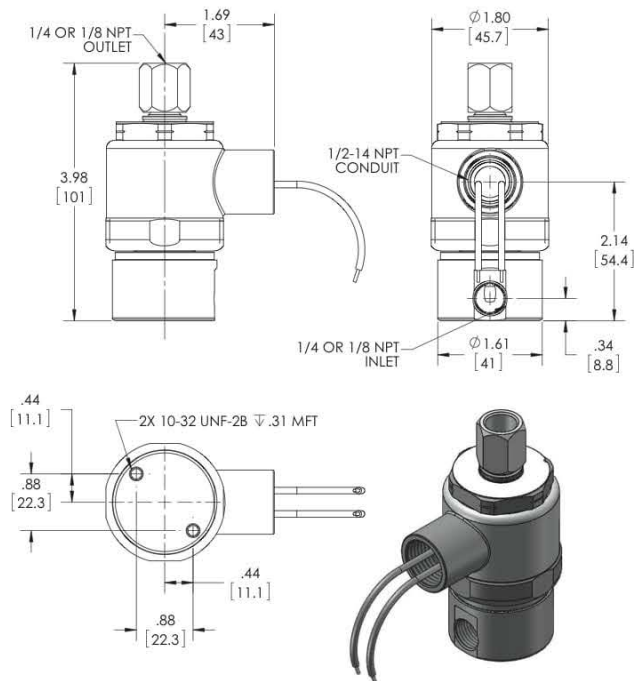
Valve Weight: 1.50 lbs

Repair Kits: See table on proceeding page.

Options: Alternate Port Locations, Metering, Manual Override, Alternate Elastomers*

* Consult representative or factory for options and specifications.





**SERIES 20
MODEL E21
2WNO
EXPLOSION PROOF**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF. +		ORIFICE SIZE N.O.	CV FACTOR N.O.	VALVE NUMBER	
AC	DC			1/8 NPT PORTS	1/4 NPT PORTS
400 (700)*	400 (700)*	1/32	.024	E21G7XCCM	E21G9ZCCM
235 (500)	235 (500)	3/64	.053	E21H7XCCM	E21H9ZCCM
150 (350)	150 (350)	1/16	.095	E21J7XCCM	E21J9ZCCM
100 (150)	100 (150)	3/32	.156	E21K7XCCM	E21K9ZCCM
35 (40)	35(40)	1/8	.227	E21N7XCCM ^	E21N9ZCCM ^

^ VALVES WITH 1/8 ORIFICE ARE NOT UL OR CSA LISTED

* FKM seals not recommended for pressure ratings above 500 PSI

+ Ratings in brackets are optional extended ratings; consult factory.

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (E21K9ZCCM 120/60) REPAIR PACK (2KE21K AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (OE21K9DCCM 120/60)

HAZARDOUS LOCATION VALVES



Note: This valve also available as an operator. Refer to following page.

Series 20 >> Model E22

Hazardous Location – 2-Way Normally Closed Valve

Peter Paul explosion proof valves are used where fire or explosion hazards exist due to the presence of flammable gases or vapors, flammable liquids, combustible dust, or easily ignitable fibers. Hazardous Location valves are recommended, or in some cases compulsory, where a high level of protection from explosion is required.

- Heavy duty and made of stainless steel.
- A real workhorse with proven performance.
- It has the greatest amount of options available of all the valves.
- Wide range of orifice sizes from 1/32" to 1/4".

OPERATING CONDITIONS

Media: Air, water, and other fluids compatible with standard Buna seals. Hot water, steam gasoline, and many oils require special seal materials. (Series 20 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 6 to 825V AC 60 HZ. and 5 to 720V AC 50 HZ. – 1.8 to 265V DC

Nominal Power: AC – 7.3 Watts DC – 9.5 Watts

Coil Construction: Molded Class F with third wire ground (Std.), Class H or Potted (Opt.)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: 1/8" and 1/4" NPT (others ports available).

Housing: Flame-Proof construction with 1/2" NPT conduit

Listings: Valves are UL listed and CSA certified for Hazardous Locations – Class I, Div 1, Group C and D - Class II, Div 1, Group E, F, and G; Div 2 Groups A, B, C, D, E, F, and G.

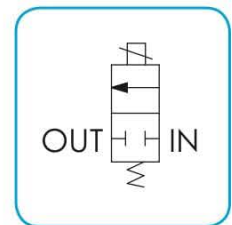
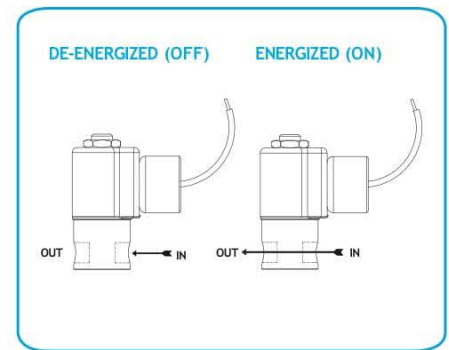
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

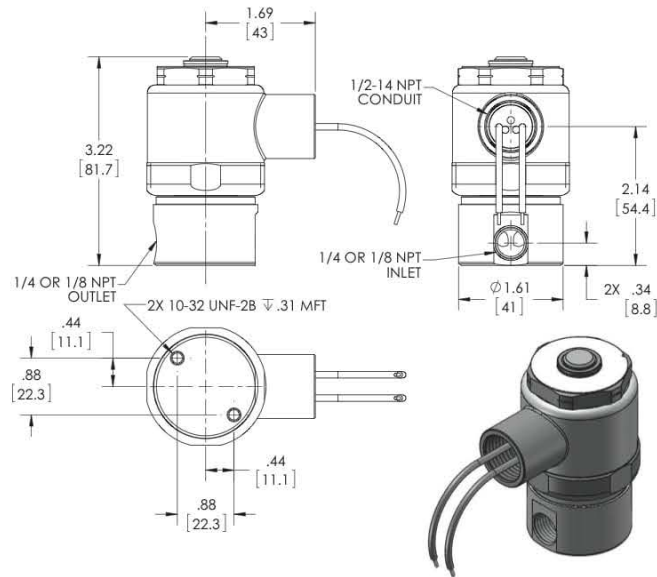
Valve Weight: 1.38 lbs

Repair Kits: See table on proceeding page.

Options: Alternate Port Locations, Metering, Manual Override, Alternate Elastomers*

* Consult representative or factory for options and specifications.





**SERIES 20
MODEL E22
2WNC
EXPLOSION PROOF**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.+		ORIFICE SIZE N.C.	CV FACTOR N.C.	VALVE NUMBER	
AC	DC			1/8 NPT PORTS	1/4 NPT PORTS
500	500	1/32	.024	E22G7DCCM	E22G9DCCM
250 (500)	250 (500)	3/64	.052	E22H7DCCM	E22H9DCCM
200 (400)	200 (400)	1/16	.095	E22J7DCCM	E22J9DCCM
125 (300)	125 (250)	3/32	.156	E22K7DCCM	E22K9DCCM
100 (200)	100 (200)	1/8	.284	E22N7DCCM	E22N9DCCM
75	50	5/32	.404	E22O7DCCM	E22O9DCCM
50	25	3/16	.500	E22P7DCCM	E22P9DCCM
20	5	1/4	.700	E22R7DCCM	E22R9DCCM

+ Ratings in brackets are optional extended ratings; consult factory.

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (E22N9DCCM 120/60) REPAIR PACK (2KE22K AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (OE22N9DCCM 120/60)

HAZARDOUS LOCATION VALVES



Note: This valve also available as an operator. Refer to following page.

Series 20 >> Model E23

Hazardous Location – 3-Way Normally Closed Valve Exhaust to Atmosphere

Peter Paul explosion proof valves are used where fire or explosion hazards exist due to the presence of flammable gases or vapors, flammable liquids, combustible dust, or easily ignitable fibers. Hazardous Location valves are recommended, or in some cases compulsory, where a high level of protection from explosion is required.

- Heavy duty and made of stainless steel.
- A real workhorse with proven performance.
- It has the greatest amount of options available of all the valves.
- Wide range of orifice sizes from 1/32" to 1/4".

OPERATING CONDITIONS

Media: Air, water, and other fluids compatible with standard Buna seals. Hot water, steam gasoline, and many oils require special seal materials. (Series 20 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 6 to 825V AC 60 HZ. and 5 to 720V AC 50 HZ. – 1.8 to 265V DC

Nominal Power: AC – 7.3 Watts DC – 9.5 Watts

Coil Construction: Molded Class F with third wire ground (Std.), Class H or Potted (Opt.)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: 1/8" and 1/4" NPT (others ports available).

Housing: Flame-Proof construction with 1/2" NPT conduit

Listings: Valves are UL listed and CSA certified for Hazardous Locations – Class I, Div 1, Group C and D - Class II, Div 1, Group E, F, and G; Div 2 Groups A, B, C, D, E, F, and G.

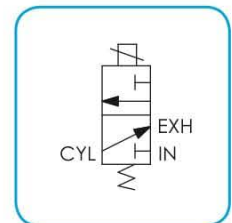
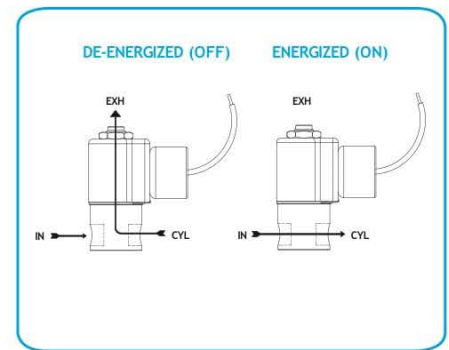
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

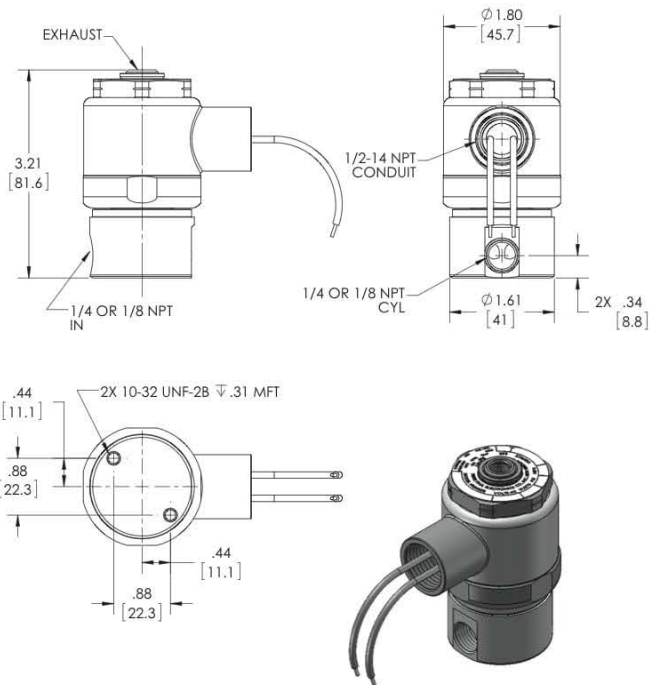
Valve Weight: 1.38 lbs

Repair Kits: See table on proceeding page.

Options: Alternate Port Locations, Metering, Manual Override, Alternate Elastomers*

* Consult representative or factory for options and specifications.





**SERIES 20
MODEL E23
3WNC EXHAUST TO ATMOSPHERE
EXPLOSION PROOF**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF. +		ORIFICE SIZE		CV FACTOR		VALVE NUMBER	
AC	DC	N.C.	N.O.	N.C.	N.O.	1/8 NPT PORTS	1/4 NPT PORTS
400	400	1/32	1/32	.024	.024	E23GG7DCCM	E23GG9DCCM
150 (200)	150 (200)	3/64	1/16	.052	.095	E23HJ7DCCM	E23HJ9DCCM
100 (135)	100 (135)	1/16	1/16	.095	.095	E23JJ7DCCM	E23JJ9DCCM
100 (135)	100 (135)	1/16	3/32	.095	.156	E23JK7DCCM	E23JK9DCCM
75 (100)	75 (100)	3/32	3/32	.156	.156	E23KK7DCCM	E23KK9DCCM
50 (70)	50 (70)	1/8	3/32	.284	.156	E23NK7DCCM	E23NK9DCCM
35 (40)	35 (40)	1/8	1/8	.284	.227	E23NN7DCCM ^	E23NN9DCCM ^
20	20	3/16	3/32	.500	.156	E23PK7DCCM	E23PK9DCCM
20	20	3/16	1/8	.500	.227	E23PN7DCCM ^	E23PN9DCCM ^
15	—	1/4	3/32	.700	.156	E23RK7DCCM	E23RK9DCCM
15	—	1/4	1/8	.700	.227	E23RN7DCCM ^	E23RN9DCCM ^

^ VALVES WITH 1/8 ORIFICE ARE NOT UL OR CSA LISTED

+ Ratings in brackets are optional extended ratings; consult factory.

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (E23KK9DCCM 120/60) REPAIR PACK (2KE23KKD AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (OE23KK9DCCM 120/60)

HAZARDOUS LOCATION VALVES



Note: This valve also available as an operator. Refer to following page.

Series 20 >> Model E23

Hazardous Location – 3-Way Normally Closed Valve Piped Exhaust

Peter Paul explosion proof valves are used where fire or explosion hazards exist due to the presence of flammable gases or vapors, flammable liquids, combustible dust, or easily ignitable fibers. Hazardous Location valves are recommended, or in some cases compulsory, where a high level of protection from explosion is required.

- Heavy duty and made of stainless steel.
- A real workhorse with proven performance.
- It has the greatest amount of options available of all the valves.
- Wide range of orifice sizes from 1/32" to 1/4".

OPERATING CONDITIONS

Media: Air, water, and other fluids compatible with standard Buna seals. Hot water, steam gasoline, and many oils require special seal materials. (Series 20 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 6 to 825V AC 60 HZ. and 5 to 720V AC 50 HZ. – 1.8 to 265V DC

Nominal Power: AC – 7.3 Watts DC – 9.5 Watts

Coil Construction: Molded Class F with third wire ground (Std.), Class H or Potted (Opt.)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: 1/8" and 1/4" NPT (others ports available).

Housing: Flame-Proof construction with 1/2" NPT conduit

Listings: Valves are UL listed and CSA certified for Hazardous Locations – Class I, Div 1, Group C and D - Class II, Div 1, Group E, F, and G; Div 2 Groups A, B, C, D, E, F, and G.

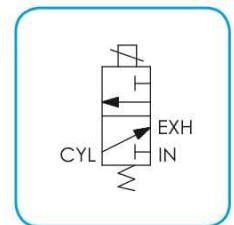
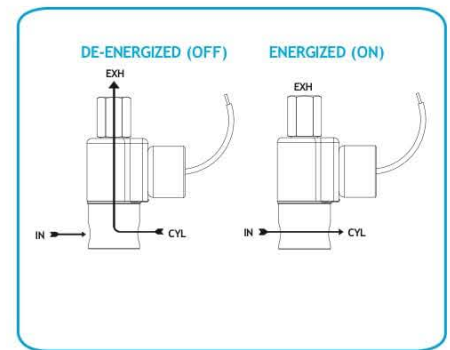
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

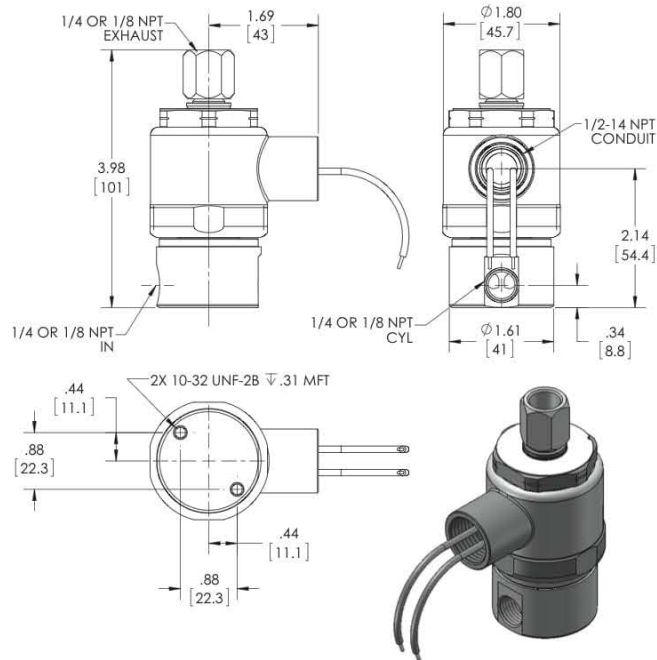
Valve Weight: 1.50 lbs

Repair Kits: See table on proceeding page.

Options: Alternate Port Locations, Metering, Manual Override, Alternate Elastomers*

* Consult representative or factory for options and specifications.





**SERIES 20
MODEL E23
3WNC PIPED EXHAUST
EXPLOSION PROOF**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.+		ORIFICE SIZE		CV FACTOR		VALVE NUMBER	
AC	DC	N.C.	N.O.	N.C.	N.O.	1/8 NPT PORTS	1/4 NPT PORTS
400	400	1/32	1/32	.024	.024	E23GG7XCCM	E23GG9ZCCM
150 (200)	150 (200)	3/64	1/16	.052	.095	E23HJ7XCCM	E23HJ9ZCCM
100 (135)	100 (135)	1/16	1/16	.095	.095	E23JJ7XCCM	E23JJ9ZCCM
100 (135)	100 (135)	1/16	3/32	.095	.156	E23JK7XCCM	E23JK9ZCCM
75 (100)	75 (100)	3/32	3/32	.156	.156	E23KK7XCCM	E23KK9ZCCM
50 (70)	50 (70)	1/8	3/32	.284	.156	E23NK7XCCM	E23NK9ZCCM
35 (40)	35 (40)	1/8	1/8	.284	.227	E23NN7XCCM ^	E23NN9ZCCM
20	20	3/16	3/32	.500	.156	E23PK7XCCM	E23PK9ZCCM
20	20	3/16	1/8	.500	.227	E23PN7XCCM ^	E23PN9ZCCM ^
15	—	1/4	3/32	.700	.156	E23RK7XCCM	E23RK9ZCCM ^
15	—	1/4	1/8	.700	.227	E23RN7XCCM ^	E23RN9ZCCM ^

^ VALVES WITH 1/8 ORIFICE ARE NOT UL OR CSA LISTED

+ Ratings in brackets are optional extended ratings; consult factory.

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (E23KK9ZCCM 120/60) REPAIR PACK (2KE23KKZ AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (OE23KK9DCCM 120/60)

HAZARDOUS LOCATION VALVES



Note: This valve also available as an operator. Refer to following page.

Series 20 >> Model E24

Hazardous Location – 3-Way Normally Open Valve

Peter Paul explosion proof valves are used where fire or explosion hazards exist due to the presence of flammable gases or vapors, flammable liquids, combustible dust, or easily ignitable fibers. Hazardous Location valves are recommended, or in some cases compulsory, where a high level of protection from explosion is required.

- Heavy duty and made of stainless steel.
- A real workhorse with proven performance.
- It has the greatest amount of options available of all the valves.
- Wide range of orifice sizes from 1/32" to 1/8".

OPERATING CONDITIONS

Media: Air, water, and other fluids compatible with standard Buna seals. Hot water, steam gasoline, and many oils require special seal materials. (Series 20 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 6 to 825V AC 60 HZ. and 5 to 720V AC 50 HZ. – 1.8 to 265V DC

Nominal Power: AC – 7.3 Watts DC – 9.5 Watts

Coil Construction: Molded Class F with third wire ground (Std.), Class H or Potted (Opt.)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: 1/8" and 1/4" NPT (others ports available).

Housing: Flame-Proof construction with 1/2" NPT conduit

Listings: Valves are UL listed and CSA certified for Hazardous Locations – Class I, Div 1, Group C and D - Class II, Div 1, Group E, F, and G; Div 2 Groups A, B, C, D, E, F, and G.

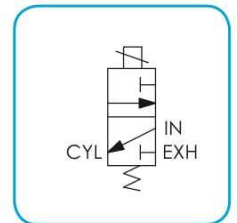
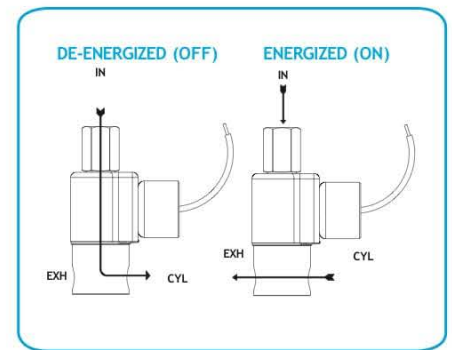
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

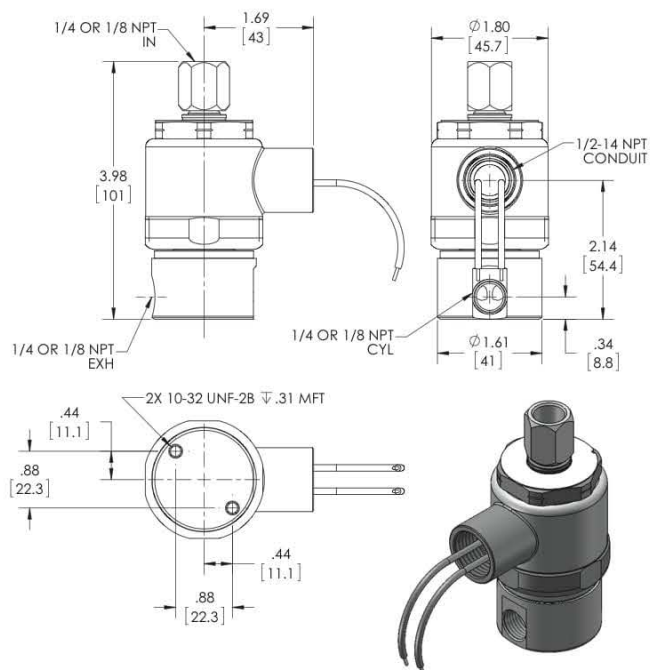
Valve Weight: 1.50 lbs

Repair Kits: See table on proceeding page.

Options: Alternate Port Locations, Metering, Manual Override, Alternate Elastomers*

* Consult representative or factory for options and specifications.





**SERIES 20
MODEL E24
3WNO
EXPLOSION PROOF**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF. +		ORIFICE SIZE		CV FACTOR		VALVE NUMBER	
AC	DC	N.O.	N.C.	N.O.	N.C.	1/8 NPT PORTS	1/4 NPT PORTS
400	400	1/32	1/32	.024	.024	E24GG7XCCM	E24GG9ZCCM
150 (225)	150	3/64	1/16	.052	.095	E24HJ7XCCM	E24HJ9ZCCM
100 (150)	100	1/16	1/16	.095	.095	E24JJ7XCCM	E24JJ9ZCCM
100 (125)	100	1/16	1/8	.095	.284	E24JN7XCCM	E24JN9ZCCM
75 (90)	75	3/32	1/8	.156	.284	E24KN7XCCM	E24KN9ZCCM
30	30	1/8	1/8	.227	.284	E24NN7XCCM ^	E24NN9ZCCM ^

^ VALVES WITH 1/8 ORIFICE ARE NOT UL OR CSA LISTED

+ Ratings in brackets are optional extended ratings; consult factory.

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (E24K9ZCCM 120/60) REPAIR PACK (2KE24K AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (OE24K9DCCM 120/60)

HAZARDOUS LOCATION VALVES



Note: This valve also available as an operator. Refer to following page.

Series 20 >> Model E25

Hazardous Location – 3-Way Directional Control Valve

Peter Paul explosion proof valves are used where fire or explosion hazards exist due to the presence of flammable gases or vapors, flammable liquids, combustible dust, or easily ignitable fibers. Hazardous Location valves are recommended, or in some cases compulsory, where a high level of protection from explosion is required.

- Heavy duty and made of stainless steel.
- A real workhorse with proven performance.
- It has the greatest amount of options available of all the valves.
- Wide range of orifice sizes from 1/32" to 1/8".

OPERATING CONDITIONS

Media: Air, water, and other fluids compatible with standard Buna seals. Hot water, steam gasoline, and many oils require special seal materials. (Series 20 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 6 to 825V AC 60 HZ. and 5 to 720V AC 50 HZ. – 1.8 to 265V DC

Nominal Power: AC – 7.3 Watts DC – 9.5 Watts

Coil Construction: Molded Class F with third wire ground (Std.), Class H or Potted (Opt.)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: 1/8" and 1/4" NPT (others ports available).

Housing: Flame-Proof construction with 1/2" NPT conduit

Listings: Valves are UL listed and CSA certified for Hazardous Locations – Class I, Div 1, Group C and D - Class II, Div 1, Group E, F, and G; Div 2 Groups A, B, C, D, E, F, and G.

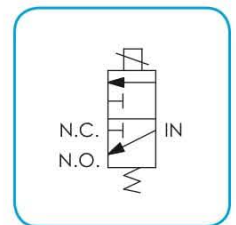
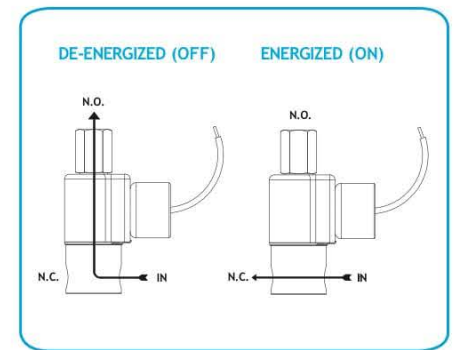
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

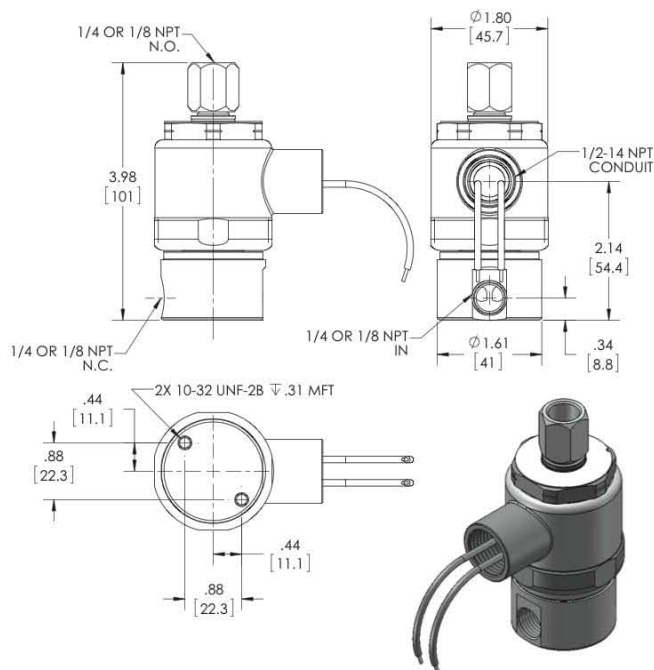
Valve Weight: 1.50 lbs

Repair Kits: See table on proceeding page.

Options: Alternate Port Locations, Metering, Manual Override, Alternate Elastomers*

* Consult representative or factory for options and specifications.





**SERIES 20
MODEL E25
3-WAY DIRECTIONAL CONTROL
EXPLOSION PROOF**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF. +		ORIFICE SIZE		CV FACTOR		VALVE NUMBER	
AC	DC	N.C.	N.O.	N.C.	N.O.	1/8 NPT PORTS	1/4 NPT PORTS
500	500	1/32	1/32	.024	.024	E25GG7XCCM	E25GG9ZCCM
235 (400)	235 (300)	3/64	3/64	.052	.052	E25HH7XCCM	E25HH9ZCCM
200 (225)	200 (200)	1/16	3/64	.095	.052	E25JH7XCCM	E25JH9ZCCM
150 (225)	150 (200)	1/16	1/16	.095	.095	E25JJ7XCCM	E25JJ9ZCCM
100 (150)	100 (125)	3/32	3/32	.156	.156	E25KK7XCCM	E25KK9ZCCM
100 (125)	100	1/8	3/32	.284	.156	E25NK7XCCM	E25NK9ZCCM
35 (40)	35 (40)	1/8	1/8	.284	.227	E25NN7XCCM ^	E25NN9ZCCM ^

^ VALVES WITH 1/8 ORIFICE ARE NOT UL OR CSA LISTED

+ Ratings in brackets are optional extended ratings; consult factory.

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (E25NK9ZCCM 120/60) REPAIR PACK (2KE25NK AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (OE25NK9DCCM 120/60)

HAZARDOUS LOCATION VALVES



Note: This valve also available as an operator. Refer to following page.

Series 20 >> Model E26

Hazardous Location – 3-Way Multi-Purpose Valve

Peter Paul explosion proof valves are used where fire or explosion hazards exist due to the presence of flammable gases or vapors, flammable liquids, combustible dust, or easily ignitable fibers. Hazardous Location valves are recommended, or in some cases compulsory, where a high level of protection from explosion is required.

- Heavy duty and made of stainless steel.
- A real workhorse with proven performance.
- It has the greatest amount of options available of all the valves.
- Wide range of orifice sizes from 1/32" to 1/8".

OPERATING CONDITIONS

Media: Air, water, and other fluids compatible with standard Buna seals. Hot water, steam gasoline, and many oils require special seal materials. (Series 20 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 6 to 825V AC 60 HZ. and 5 to 720V AC 50 HZ. – 1.8 to 265V DC

Nominal Power: AC – 7.3 Watts DC – 9.5 Watts

Coil Construction: Molded Class F with third wire ground (Std.), Class H or Potted (Opt.)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: 1/8" and 1/4" NPT (others ports available).

Housing: Flame-Proof construction with 1/2" NPT conduit

Listings: Valves are UL listed and CSA certified for Hazardous Locations – Class I, Div 1, Group C and D - Class II, Div 1, Group E, F, and G; Div 2 Groups A, B, C, D, E, F, and G.

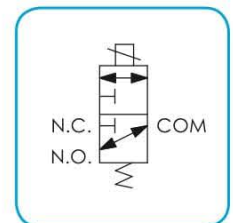
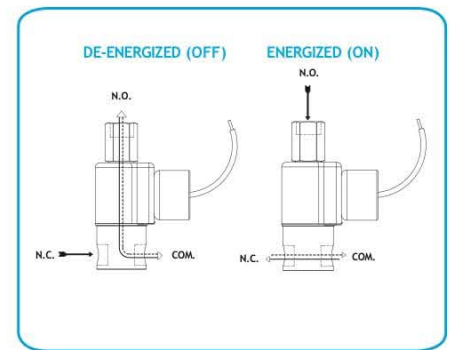
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

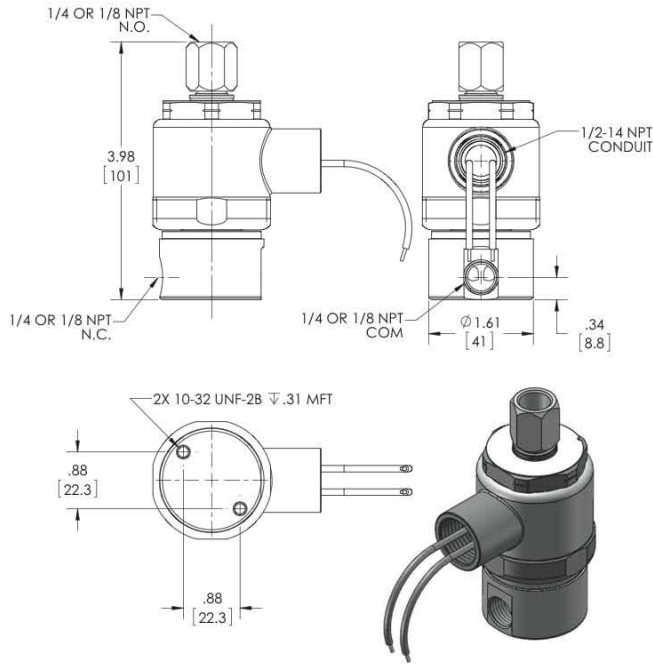
Valve Weight: 1.50 lbs

Repair Kits: See table on proceeding page.

Options: Alternate Port Locations, Metering, Manual Override, Alternate Elastomers*

* Consult representative or factory for options and specifications.





**SERIES 20
MODEL E26
3-WAY MULTI-PURPOSE
EXPLOSION PROOF**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		ORIFICE SIZE		CV FACTOR		VALVE NUMBER	
AC	DC	N.C.	N.O.	N.C.	N.O.	1/8 NPT PORTS	1/4 NPT PORTS
400	400	1/32	1/32	.024	.024	E26GG7XCCM	E26GG9ZCCM
150	150	3/64	3/64	.052	.052	E26HH7XCCM	E26HH9ZCCM
100	100	1/16	1/16	.095	.095	E26JJ7XCCM	E26JJ9ZCCM
75	75	3/32	3/32	.156	.156	E26KK7XCCM	E26KK9ZCCM
35	35	1/8	1/8	.284	.277	E26NN7XCCM ^	E26NN9ZCCM ^

^ VALVES WITH 1/8 ORIFICE ARE NOT UL OR CSA LISTED

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (E26NK9ZCCM 120/60) REPAIR PACK (2KE26NK AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (OE26NK9DCCM 120/60)

HAZARDOUS LOCATION HIGH PRESSURE VALVES



Note: This valve also available as an operator. Refer to following page.

Series 20 >> Model EH21

Hazardous Location High Pressure – 2-Way Normally Open

This valve uses the same kinetic energy impact mechanism as the EH22 but incorporates an internal rocker arm to reverse the action of the sealing pin. The kinetic energy of the plunger is applied to one end of the rocker arm when the coil is de-energized. This lifts the sealing pin, on the opposite end of the rocker arm, against the force of high pressure. A return spring acts directly on the pin, sealing the orifice when the coil is energized.

- Precision stainless steel rocker arm.
- Kel-F pin sealing element.
- Orifice guides the sealing pin for near perfect alignment.

OPERATING CONDITIONS

Media: Air and other non-corrosive gasses, water and oil.

Filtration: Down to 60 microns or less is recommended.

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5,000 PSI

Leakage: Bubble tight for standard valves.

ELECTRICAL CHARACTERISTICS

Coil Voltage: 6 to 825V AC 60 HZ. and 5 to 720V AC 50 HZ. – 1.8 to 265V DC

Nominal Power: AC – 7.3 Watts DC – 9.5 Watts

Coil Construction: Molded Class F with third wire ground (Std.), Class H or Potted (Opt.)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM with gas media

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: 300 Series Stainless Steel

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Sealing Pin: Kel-F (Std.), Delrin®, Teflon®, Nylon, PEEK, Radel®, Ultem®, 303 Stainless Steel (Opt.)

Orifice Diameter: See table on proceeding page.

Porting: 1/8" NPT

Housing: Flame-Proof construction with 1/2" NPT conduit

Mounting: Must be mounted within 30° of vertical.

Listings: Valves are UL listed and CSA certified for Hazardous Locations – Class I, Div 1, Group C and D - Class II, Div 1, Group E, F, and G; Div 2 Groups A, B, C, D, E, F, and G.

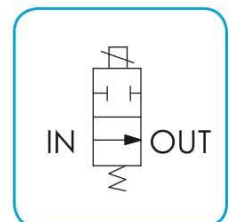
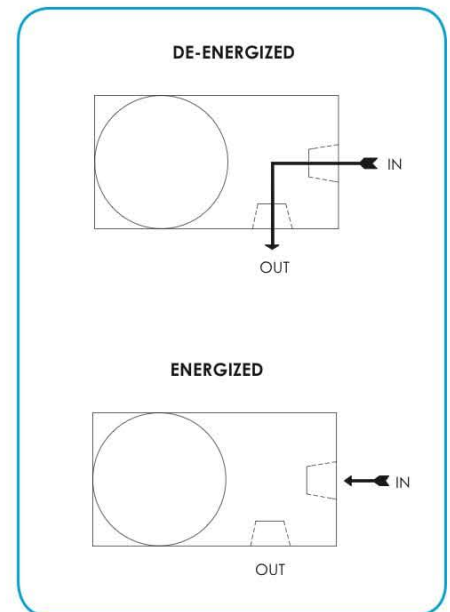
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

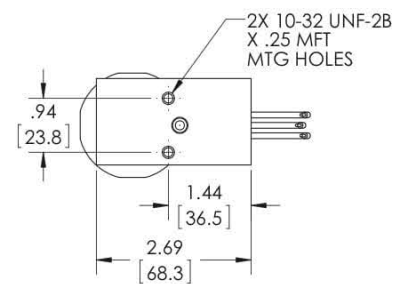
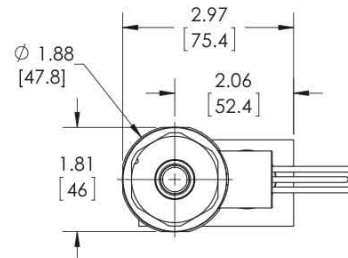
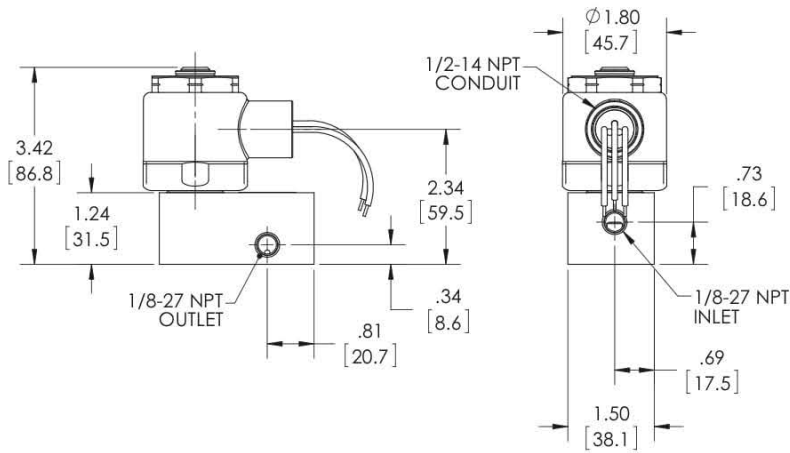
Valve Weight: 2.38 lbs

Repair Kits: See table on proceeding page.

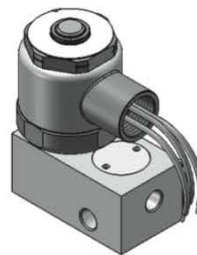
Options: Alternate Sealing Pin Materials and Alternate Elastomers*

* Consult representative or factory for options and specifications.





**SERIES 20
MODEL H21
2WNO
EXPLOSION PROOF/HIGH PRESSURE**



VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		ORIFICE SIZE N.O.	CV FACTOR N.O.	VALVE NUMBER	
GAS	LIQUID			GAS 1/8 NPT PORTS	LIQUID 1/8 NPT PORTS
3000*	3000*	1/32	.024	EH21G7DCCM	EH21G7DCCM
2500*	1500*	3/64	.052	EH21H7DCCMG	EH21H7DCCML
1350*	850*	1/16	.095	EH21J7DCCMG	EH21J7DCCML
450	300	3/32	.156	EH21K7DCCMG	EH21K7DCCML

* FKM seals not recommended for pressure above 500 psi.

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (EH21J7DCCMG 120/60) REPAIR PACK (2KEH21J AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (OEH21J7DCCMG 120/60)

HAZARDOUS LOCATION HIGH PRESSURE VALVES



Note: This valve also available as an operator. Refer to following page.

Series 20 >> Model EH22

Hazardous Location High Pressure – 2-Way Normally Closed

When the coil is energized, the plunger accelerates freely before it makes contact with the sealing pin shoulder. Upon contact, it imparts considerable kinetic energy to the pin causing it to lift off the orifice seat against the force of high pressure. For use on air and other non-corrosive gases, water and oil.

- Precision stainless steel, free floating plunger.
- Kel-F pin sealing element.
- Orifice guides the sealing pin for near perfect alignment.
- Simple construction...only two moving parts.

OPERATING CONDITIONS

Media: Air and other non-corrosive gasses, water and oil.

Filtration: Down to 60 microns or less is recommended.

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5,000 PSI

Leakage: Bubbletight (with polymer sealing pins)

ELECTRICAL CHARACTERISTICS

Coil Voltage: 6 to 825V AC 60 HZ. and 5 to 720V AC 50 HZ. – 1.8 to 265V DC

Nominal Power: AC – 7.3 Watts DC – 9.5 Watts

Coil Construction: Molded Class F with third wire ground (Std.), Class H or Potted (Opt.)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM with gas media

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Sealing Pin: Kel-F (Std.), Delrin®, Teflon®, Nylon, PEEK, Radel®, Ultem®, 303 Stainless Steel (Opt.)

Orifice Diameter: See table on proceeding page.

Porting: 1/8" NPT and 1/4" NPT (other ports available).

Housing: Flame-Proof construction with 1/2" NPT conduit

Mounting: Must be mounted within 30° of vertical.

Listings: Valves are UL listed and CSA certified for Hazardous Locations – Class I, Div 1, Group C and D - Class II, Div 1, Group E, F, and G; Div 2 Groups A, B, C, D, E, F, and G.

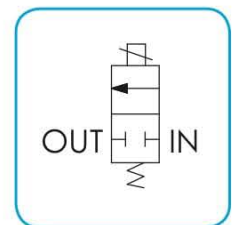
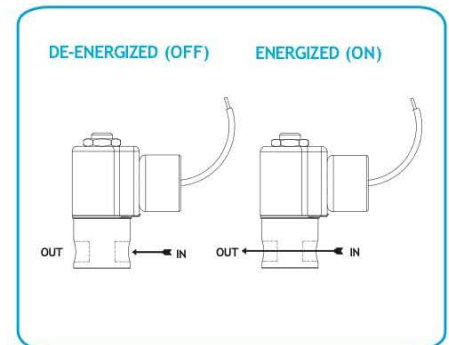
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

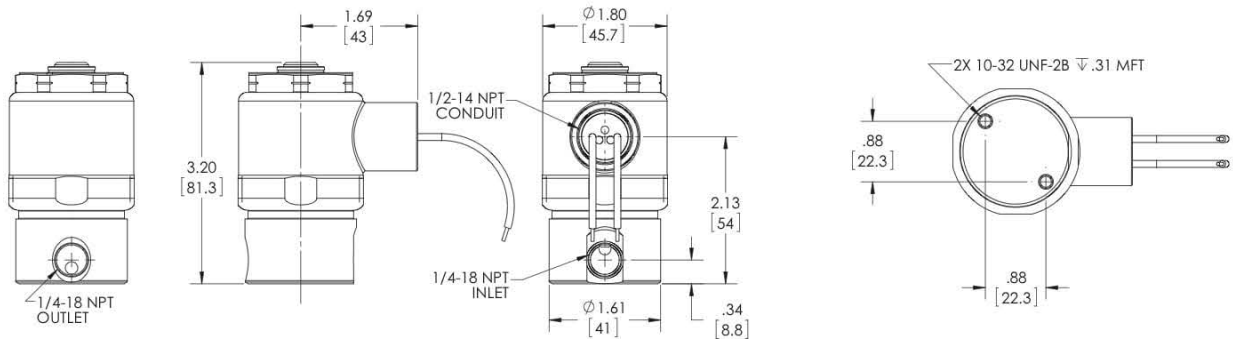
Valve Weight: 1.50 lbs

Repair Kits: See table on proceeding page.

Options: Alternate Sealing Pin Materials and Alternate Elastomers*

* Consult representative or factory for options and specifications.





**SERIES 20
MODEL H22
2WNC
EXPLOSION PROOF/HIGH PRESSURE**



VALVE SPECIFICATIONS

GAS PRESSURE RATINGS		ORIFICE SIZE N.C.	CV FACTOR N.C.	VALVE NUMBER	
AC	DC			1/8 NPT PORTS	1/4 NPT PORTS
5000*	5000*	.025	.010	EH22M7DCCM	EH22M9DCCM
3000*	3000*	1/32	.022	EH22G7DCCM	EH22G9DCCM
2500*	1500*	3/64	.041	EH22H7DCCMG	EH22H9DCCMG
1750*	500	1/16	.065	EH22J7DCCMG	EH22J9DCCMG
650*	100	3/32	.100	EH22K7DCCMG	EH22K9DCCMG
LIQUID PRESSURE RATINGS		ORIFICE SIZE N.C.	CV FACTOR N.C.	VALVE NUMBER	
AC	DC			1/8 NPT PORTS	1/4 NPT PORTS
5000*	5000*	.025	.010	EH22M7DCCM	EH22M9DCCM
3000*	3000*	1/32	.022	EH22G7DCCM	EH22G9DCCM
1500*	1500*	3/64	.041	EH22H7DCCML	EH22H9DCCML
1000*	500	1/16	.065	EH22J7DCCML	EH22J9DCCML
650*	100	3/32	.100	EH22K7DCCML	EH22K9DCCML

* FKM seals not recommended for pressure above 500 psi.

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (EH22J7DCCML 120/60) REPAIR PACK (2KEH22J AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (OEH22J7DCCML 120/60)

HAZARDOUS LOCATION HIGH PRESSURE VALVES



Note: This valve also available as an operator. Refer to following page.

Series 20 >> Model EH23

Hazardous Location High Pressure 3-Way Normally Closed Valve

PeterPaul's model EH23 has a dual operator valve that allows the same media control as a three way normally closed valve but at much higher pressure ratings than previously available. To function as a 3-way normally closed valve, operators must be alternately energized and de-energized. Pressure applied to the "IN" port must always be equal to or greater than the pressure in "CYL" port. Air and other non-corrosive gasses, water and oil.

- Precision stainless free floating plunger.
- Kel-F pin sealing element.
- Orifice guides the sealing pin for near perfect alignment.

OPERATING CONDITIONS

Filtration: Down to 60 microns or less is recommended.

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on preceeding page.

Burst Pressure: 5,000 PSI

Leakage: Bubbletight (with polymer sealing pins)

ELECTRICAL CHARACTERISTICS

Coil Voltage: 6 to 825V AC 60 HZ. and 5 to 720V AC 50 HZ.— 1.8 to 265V DC

Nominal Power: AC — 7.3 Watts DC — 9.5 Watts (Per Operator)

Coil Construction: Molded Class F with third wire ground (Std.), Class H or Potted (Opt.)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM with gas media

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: 300 Series Stainless Steel

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Sealing Pin: Kel-F (Std.), Delrin®, Teflon®, Nylon, PEEK, Radel®, Ultem®, 303 Stainless Steel (Opt.)

Orifice Diameter: See table on preceeding page.

Porting: 1/4" NPT

Housing: Flame-Proof Construction with 1/2" NPT conduit

Mounting: Must be mounted within 30° of vertical.

Listings: Valves are UL listed and CSA certified for Hazardous Locations — Class I, Div 1, Group C and D - Class II, Div 1, Group E, F, and G; Div 2 Groups A, B, C, D, E, F, and G.

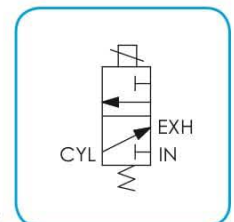
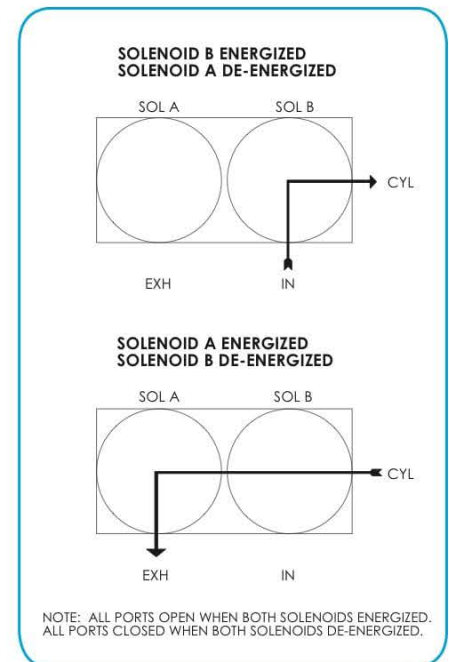
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

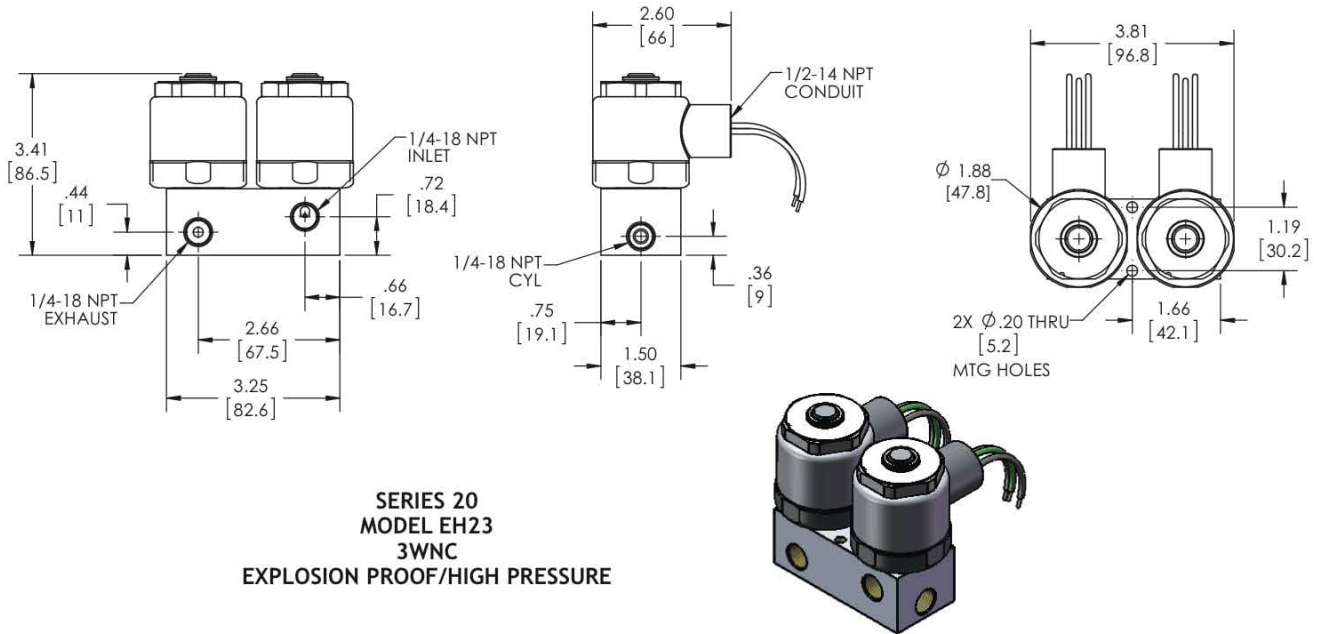
Valve Weight: 3.63 lbs

Repair Kits: See table on preceeding page.

Options: Alternate Sealing Pin Materials and Alternate Elastomers*

* Consult representative or factory for options and specifications.





VALVE SPECIFICATIONS

GAS PRESSURE RATINGS		ORIFICE SIZE	CV FACTOR	VALVE NUMBER
AC	DC			
3000*	3000*	1/32	.022	EH23GG19DCCM
2500*	1500*	3/64	.041	EH23HH19DCCMG
1750*	500	1/16	.065	EH23JJ19DCCMG
650*	100	3/32	.100	EH23KK19DCCMG

LIQUID PRESSURE RATINGS		ORIFICE SIZE	CV FACTOR	VALVE NUMBER
AC	DC			
3000*	3000*	1/32	.022	EH23GG19DCCM
1500*	1500*	3/64	.041	EH23HH19DCCML
1000*	500*	1/16	.065	EH23JJ19DCCML
300	100	3/32	.100	EH23KK19DCCML

* FKM seals not recommended for pressure above 500 psi.

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (EH23JJ19DCCML 120/60) REPAIR PACK (2KEH23JJ AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (OEH23JJ19DCCML 120/60)



Note: This valve also available as an operator. Refer to following page.

Series 20 >> Model E22 C/I Rated

Hazardous Location – 2-Way Normally Closed Valve

Peter Paul offers a line of Hazardous Location rated, Automatic Safety Shut Off Valves designed specifically for gas appliances. These valves meet the standards for Commercial/Industrial (C/I) Safety Shut Off Valves per ANSI Z21.21 (CSA 6.5). They are well suited for use in heating equipment, furnaces, ovens, kilns, boilers and gas generators.

- Potted coil for outdoor service.
- Direct lift.
- Voltages: 120/60, 12/DC and 24/DC
- Rated for ambient temperatures of -40°C to $+65^{\circ}\text{C}$

OPERATING CONDITIONS

Media: Air, water, and other fluids compatible with standard Buna seals. Hot water, steam gasoline, and many oils require special seal materials. (Series 20 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 6 to 825V AC 60 HZ. and 5 to 720V AC 50 HZ. – 1.8 to 265V DC

Nominal Power: AC – 7.3 Watts DC – 9.5 Watts

Coil Construction: Molded Class F with third wire ground (Std.), Class H or Potted (Opt.)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.) or Brass (Opt.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: 1/4" NPT

Housing: Flame-Proof construction with 1/2" NPT conduit

Listings: Valves are UL listed and CSA certified for Hazardous Locations – Class I, Div 1, Group C and D - Class II, Div 1, Group E, F, and G; Div 2 Groups A, B, C, D, E, F, and G.

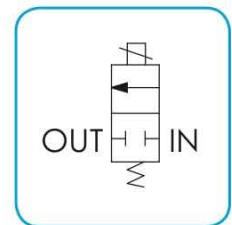
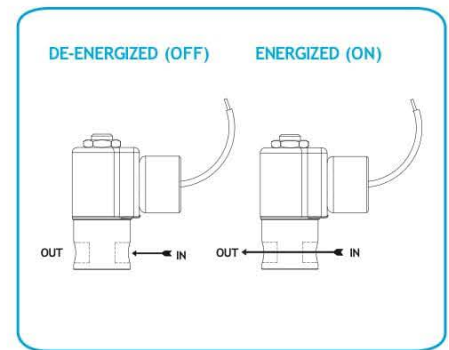
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

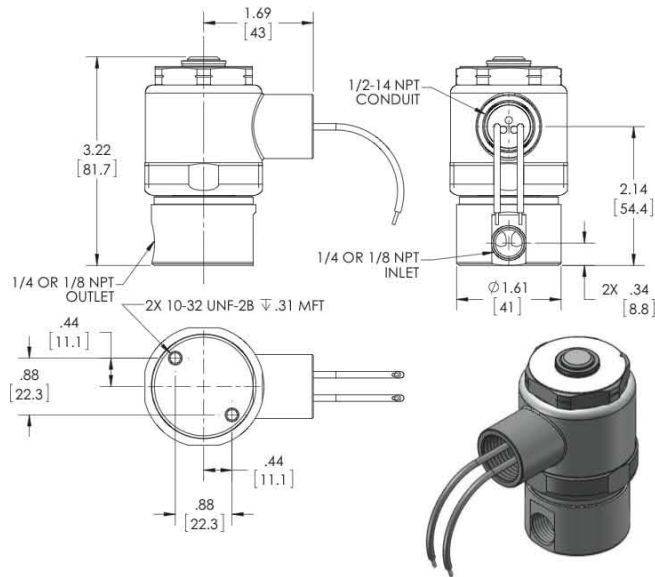
Valve Weight: 1.38 lbs

Repair Kits: See table on proceeding page.

Options: Alternate Port Locations, Metering, Manual Override, Alternate Elastomers*

* Consult representative or factory for options and specifications.





**SERIES 20
MODEL E22 C/I RATED
2WNC
EXPLOSION PROOF**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		GAS CAPACITY		PIPE SIZE	VALVE NUMBER
AC	DC	BTU/Hr	CV FACTOR		
		N.C.	N.C.		
	50	400,000	.404	1/4 NPT	E22Z0196YCCP 24/DC
50		400,000	.404	1/4 NPT	E22Z0197YCCP 120/60
	50	400,000	.404	1/4 NPT	E22Z0198YCCP 12/DC

REPAIR KITS (2KE22Z0196-DC for DC voltages; 2KE22Z0197-AC for AC voltages)

HAZARDOUS LOCATION VALVES



Series 70 >> Model N71

Hazardous Location – 2-Way Normally Open Valve

The N70 line Peter Paul Hazardous location valves are UL listed and certified for non-incendive hazardous location Class 1, Div 2, Groups A, B, C and D; Class 2, Div 2, Groups E, F and G; T3C temperature rating.

- **Largest direct acting (non-piloted) valve we manufacture.**
- **Large orifice.**
- **High flow.**
- **Will operate effectively at very low pressures or vacuum.**

Note: This valve also available as an operator. Refer to following page.

OPERATING CONDITIONS

Media: Air, water, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, and many oils require special seal materials. (Series 70 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 4000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 12 to 1150V AC 60 HZ. and 11 to 1035V AC 50 HZ. – 2.5 to 220V DC

Nominal Power: AC – 18.0 Watts DC – 16.0 Watts

Coil Construction: Potted Class F or Class H (Opt.)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.) or Brass (Opt.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: Standard 1/4" NPT (other ports available).*

Housing: 1/2" NPT conduit.*

Listings: Listed and Certified for Non-Incendive Hazardous Locations Class 1, Div 2, Groups A, B, C and D • Class 2, Div 2, Groups E, F and G • T3C Temperature rating*

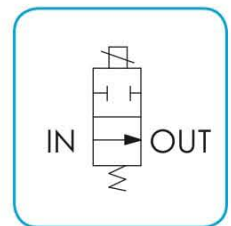
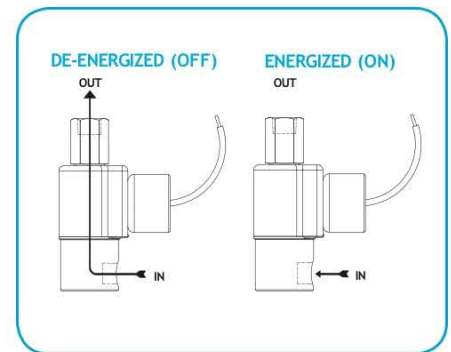
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

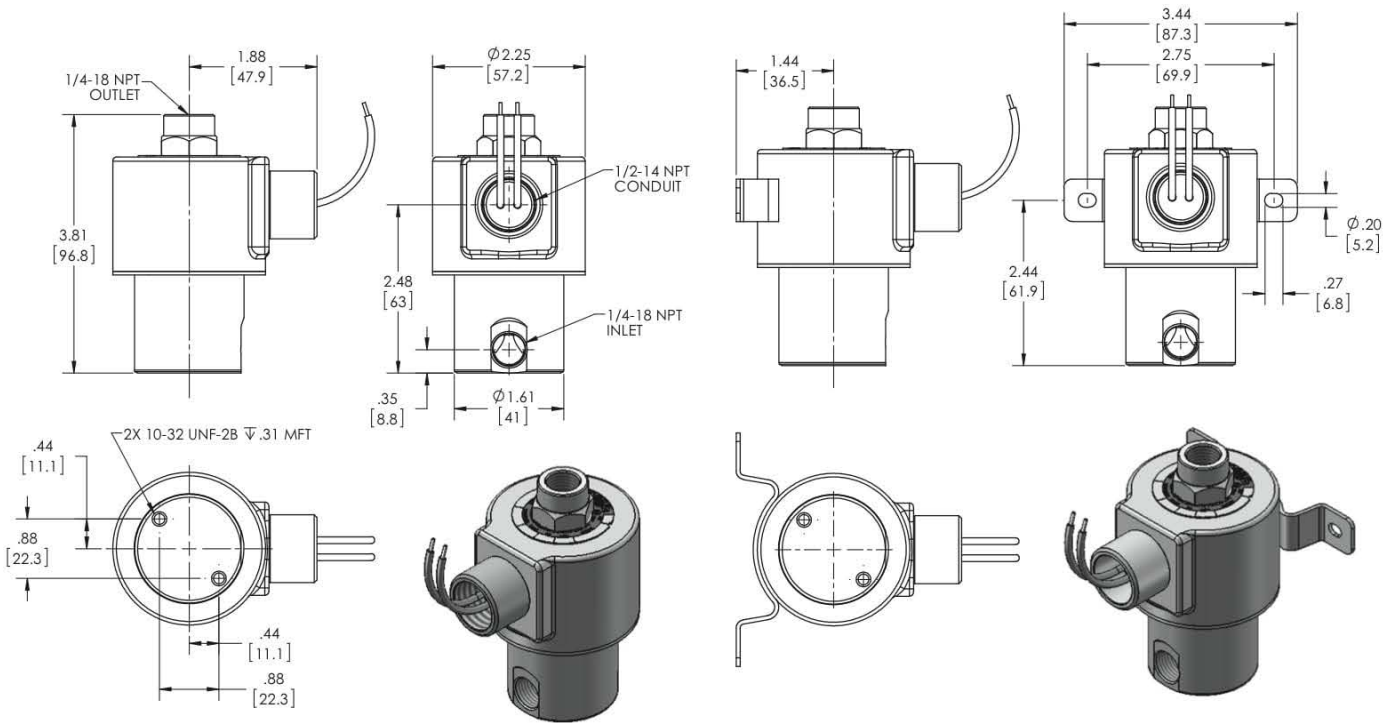
Valve Weight: Conduit Valve: 2.06 lb

Repair Packs: See table on proceeding page.

Options: Alternate Port Locations, Metering and Alternate Elastomers

* Consult representative or factory for options and specifications.





**SERIES N70
MODEL N71 1/4-18 NPT
2WNO
CONDUIT CONNECTION**

**SERIES N70
MODEL N71 1/4-18 NPT
2WNO
CONDUIT WITH BRACKET**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		ORIFICE SIZE	CV FACTOR	VALVE NUMBER
AC	DC	N.O.	N.O.	CONDUIT HOUSING
				1/4 NPT PORTS
350	350	1/16	.09	N71J9ZCP
250	250	3/32	.22	N71K9ZCP
175	175	1/8	.35	N71N9ZCP
125	125	5/32	.45	N71O9ZCP
100	100	3/16	.50	N71P9ZCP

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (N71P9ZCP 120/60) REPAIR PACK (KN71PDX AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (ON71P9DCP 120/60)



Series 70 >> Model N72

Hazardous Location – 2-Way Normally Closed Valve

The N70 line Peter Paul Hazardous location valves are UL listed and certified for non-incendive hazardous location Class 1, Div 2, Groups A, B, C and D; Class 2, Div 2, Groups E, F and G; T3C temperature rating.

- **Largest direct acting (non-piloted) valve we manufacture.**
- **Large orifice.**
- **High flow.**
- **Will operate effectively at very low pressures or vacuum.**

Note: This valve also available as an operator. Refer to following page.

OPERATING CONDITIONS

Media: Air, water, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, and many oils require special seal materials. (Series 70 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 4000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 12 to 1150V AC 60 HZ. and 11 to 1035V AC 50 HZ. – 2.5 to 220V DC

Nominal Power: AC – 18.0 Watts DC – 16.0 Watts

Coil Construction: Potted Class F or Class H (Opt.)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.) or Brass (Opt.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: Standard 1/4" NPT (other ports available).*

Housing: 1/2" NPT conduit.*

Listings: Listed and Certified for Non-Incendive Hazardous Locations Class 1, Div 2, Groups A, B, C and D • Class 2, Div 2, Groups E, F and G • T3C Temperature rating*

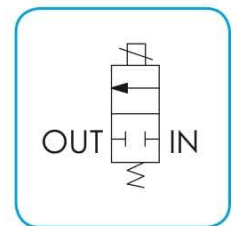
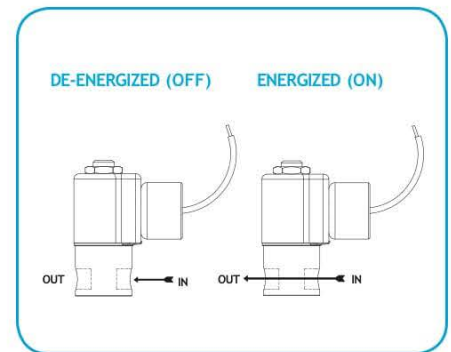
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

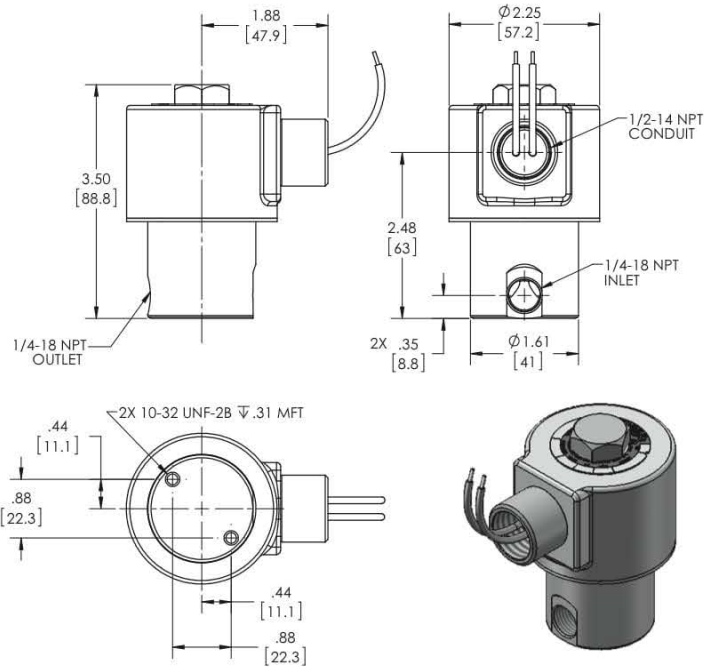
Valve Weight: Conduit Valve: 2.06 lb

Repair Packs: See table on proceeding page.

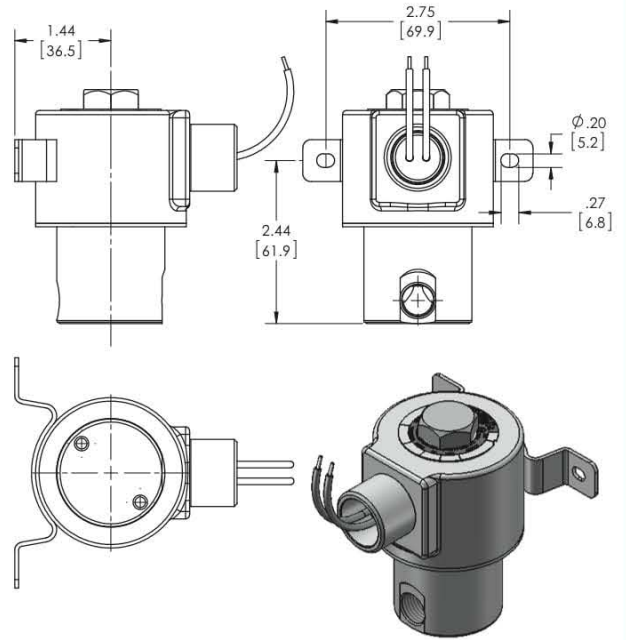
Options: Alternate Port Locations, Metering and Alternate Elastomers

* Consult representative or factory for options and specifications.





**SERIES N70
MODEL N72 1/4-18 NPT
2WNC
CONDUIT CONNECTION**



**SERIES N70
MODEL N72 1/4-18 NPT
2WNC
CONDUIT WITH BRACKET**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		ORIFICE SIZE	CV FACTOR	VALVE NUMBER
AC	DC	N.C.	N.C.	CONDUIT HOUSING
				1/4 NPT PORTS
500	500	3/32	.22	N72K9DCP
300	300	1/8	.35	N72N9DCP
225	225	5/32	.45	N72O9DCP
140	140	3/16	.55	N72P9DCP
100	100	1/4	.78	N72R9DCP

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (N72R9DCP 120/60) REPAIR PACK (KN72RDD AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (ON72R9DCP 120/60)

HAZARDOUS LOCATION VALVES



Note: This valve also available as an operator. Refer to following page.

Series 70 >> Model N73

Hazardous Location – 3-Way Normally Closed Exhaust to Atmosphere

The N70 line Peter Paul Hazardous location valves are UL listed and certified for non-incendive hazardous location Class 1, Div 2, Groups A, B, C and D; Class 2, Div 2, Groups E, F and G; T3C temperature rating.

- **Largest direct acting (non-piloted) valve we manufacture.**
- **Large orifice.**
- **High flow.**
- **Will operate effectively at very low pressures or vacuum.**

OPERATING CONDITIONS

Media: Air, water, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, and many oils require special seal materials. (Series 70 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 4000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 12 to 1150V AC 60 HZ. and 11 to 1035V AC 50 HZ. – 2.5 to 220V DC

Nominal Power: AC – 18.0 Watts DC – 16.0 Watts

Coil Construction: Potted Class F or Class H (Opt.)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.) or Brass (Opt.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: Standard 1/4" NPT (other ports available).*

Housing: 1/2" NPT conduit*

Listings: Listed and Certified for Non-Incendive Hazardous Locations Class 1, Div 2, Groups A, B, C and D; Class 2, Div 2, Groups E, F and G; T3C Temperature rating.*

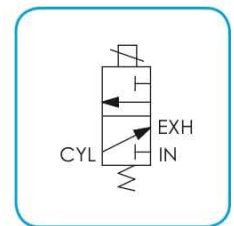
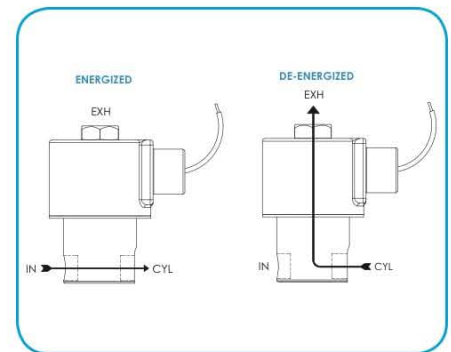
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

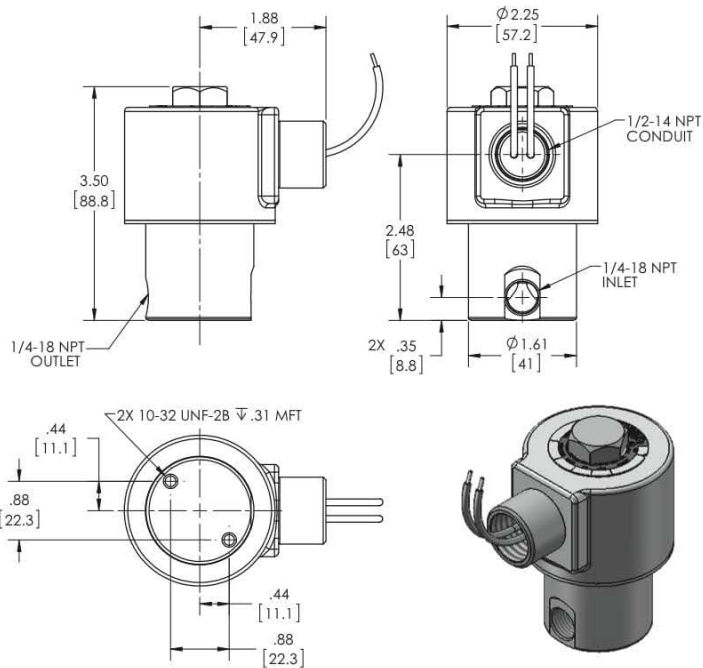
Valve Weight: Conduit Valve: 2.06 lb

Repair Packs: See table on proceeding page.

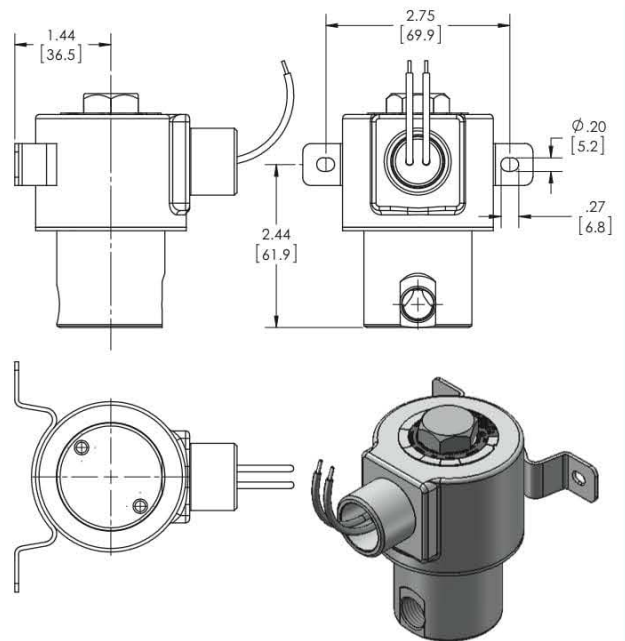
Options: Alternate Port Locations, Metering and Alternate Elastomers

* Consult representative or factory for options and specifications.





**SERIES N70
MODEL N73 1/4-18 NPT
3WNC EXHAUST TO ATMOSPHERE
CONDUIT CONNECTION**



**SERIES N70
MODEL N73 1/4-18 NPT
3WNC EXHAUST TO ATMOSPHERE
CONDUIT WITH BRACKET**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		ORIFICE SIZE		CV FACTOR		VALVE NUMBER
AC	DC	N.C.	N.O.	N.C.	N.O.	CONDUIT HOUSING
1/4 NPT PORTS						
350	350	1/16	1/16	.09	.09	N73JJ9ZCP
250	250	3/32	3/32	.22	.22	N73KK9ZCP
175	175	1/8	1/8	.35	.35	N73NN9ZCP
125	125	5/32	5/32	.45	.45	N73OO9ZCP
100	100	3/16	3/16	.50	.50	N73PP9ZCP
50	50	1/4	3/16	.78	.50	N73RP9ZCP

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (N73OO9ZCP 120/60) REPAIR PACK (KN73OOX AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (ON73OO9DCP 120/60)

HAZARDOUS LOCATION VALVES



Note: This valve also available as an operator. Refer to following page.

Series 70 >> Model N73

Hazardous Location – 3-Way Normally Closed Piped Exhaust

The N70 line Peter Paul Hazardous location valves are UL listed and certified for non-incendive hazardous location Class 1, Div 2, Groups A, B, C and D; Class 2, Div 2, Groups E, F and G; T3C temperature rating.

- **Largest direct acting (non-piloted) valve we manufacture.**
- **Large orifice.**
- **High flow.**
- **Will operate effectively at very low pressures or vacuum.**

OPERATING CONDITIONS

Media: Air, water, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, and many oils require special seal materials. (Series 70 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 4000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 12 to 1150V AC 60 HZ. and 11 to 1035V AC 50 HZ. – 2.5 to 220V DC

Nominal Power: AC – 18.0 Watts DC – 16.0 Watts

Coil Construction: Potted Class F or Class H (Opt.)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.) or Brass (Opt.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: Standard 1/4" NPT (other ports available).*

Housing: 1/2" NPT conduit*

Listings: Listed and Certified for Non-Incendive Hazardous Locations Class 1, Div 2, Groups A, B, C and D; Class 2, Div 2, Groups E, F and G; T3C Temperature rating.*

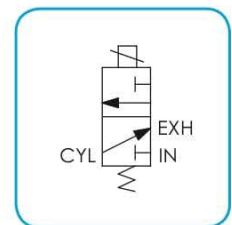
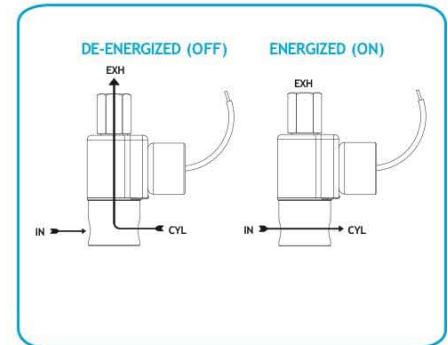
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

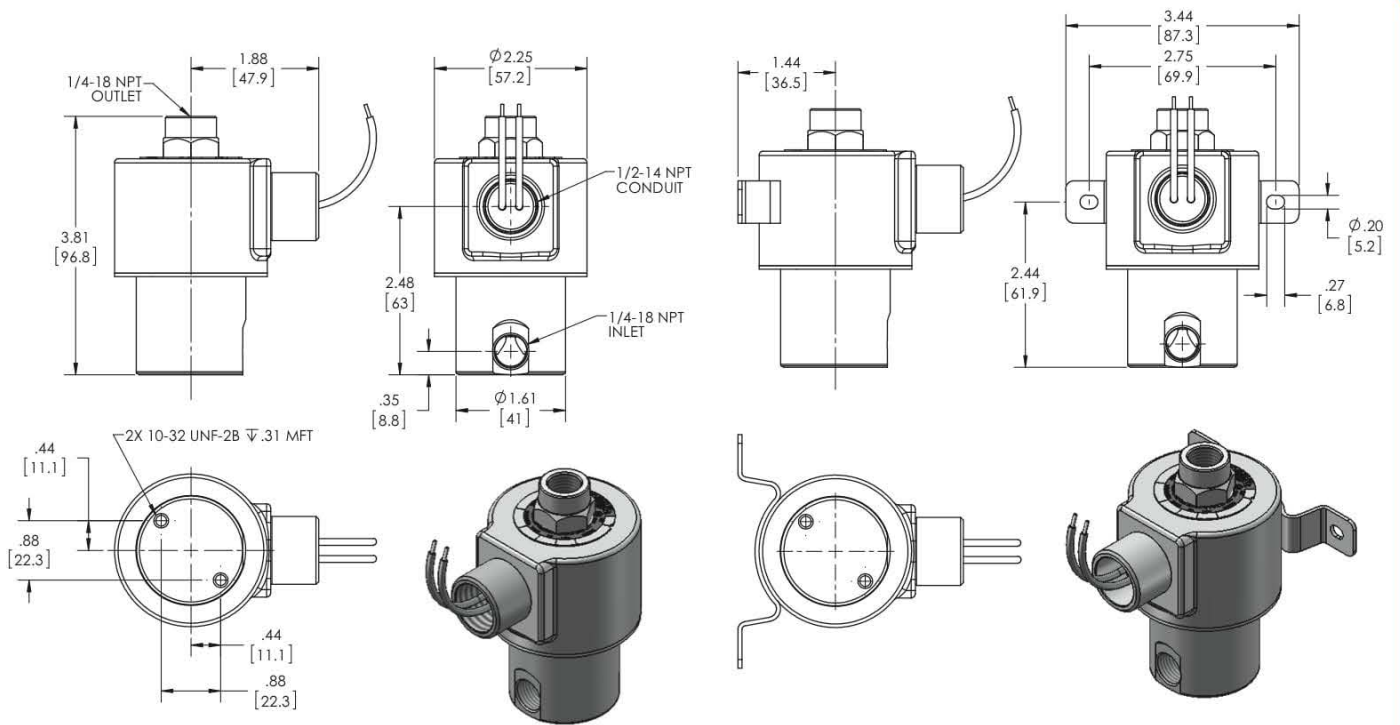
Valve Weight: Conduit Valve: 2.06 lb

Repair Packs: See table on proceeding page.

Options: Alternate Port Locations, Metering and Alternate Elastomers

* Consult representative or factory for options and specifications.





**SERIES N70
MODEL N73 1/4-18 NPT
3WNC PIPED EXHAUST
CONDUIT CONNECTION**

**SERIES N70
MODEL N73 1/4-18 NPT
3WNC PIPED EXHAUST
CONDUIT WITH BRACKET**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		ORIFICE SIZE		CV FACTOR		VALVE NUMBER
AC	DC	N.C.	N.O.	N.C.	N.O.	CONDUIT HOUSING
1/4 NPT PORTS						
350	350	1/16	1/16	.09	.09	N73JJ9DCP
250	250	3/32	3/32	.22	.22	N73KK9DCP
175	175	1/8	1/8	.35	.35	N73NN9DCP
125	125	5/32	5/32	.45	.45	N73OO9DCP
100	100	3/16	3/16	.50	.50	N3PP9DCP
50	50	1/4	3/16	.78	.50	N73RP9DCP

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (N73OO9ZCP 120/60) REPAIR PACK (KN73OOD AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (ON73OO9DCP 120/60)

HAZARDOUS LOCATION VALVES



Series 70 >> Model N74

Hazardous Location – 3-Way Normally Open Valve

The N70 line Peter Paul Hazardous location valves are UL listed and certified for non-incendive hazardous location Class 1, Div 2, Groups A, B, C and D; Class 2, Div 2, Groups E, F and G; T3C temperature rating.

- **Largest direct acting (non-piloted) valve we manufacture.**
- **Large orifice.**
- **High flow.**
- **Will operate effectively at very low pressures or vacuum.**

Note: This valve also available as an operator. Refer to following page.

OPERATING CONDITIONS

Media: Air, water, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, and many oils require special seal materials. (Series 70 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 4000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 12 to 1150V AC 60 HZ. and 11 to 1035V AC 50 HZ. – 2.5 to 220V DC

Nominal Power: AC – 18.0 Watts DC – 16.0 Watts

Coil Construction: Potted Class F or Class H (Opt.)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.) or Brass (Opt.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: Standard 1/4" NPT (other ports available).*

Housing: 1/2" NPT conduit*

Listings: Listed and Certified for Non-Incendive Hazardous Locations Class 1, Div 2, Groups A, B, C and D; Class 2, Div 2, Groups E, F and G; T3C Temperature rating.*

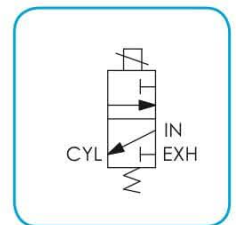
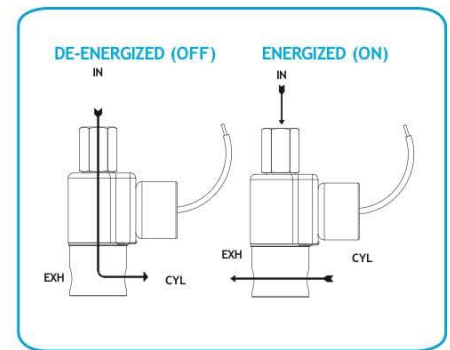
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

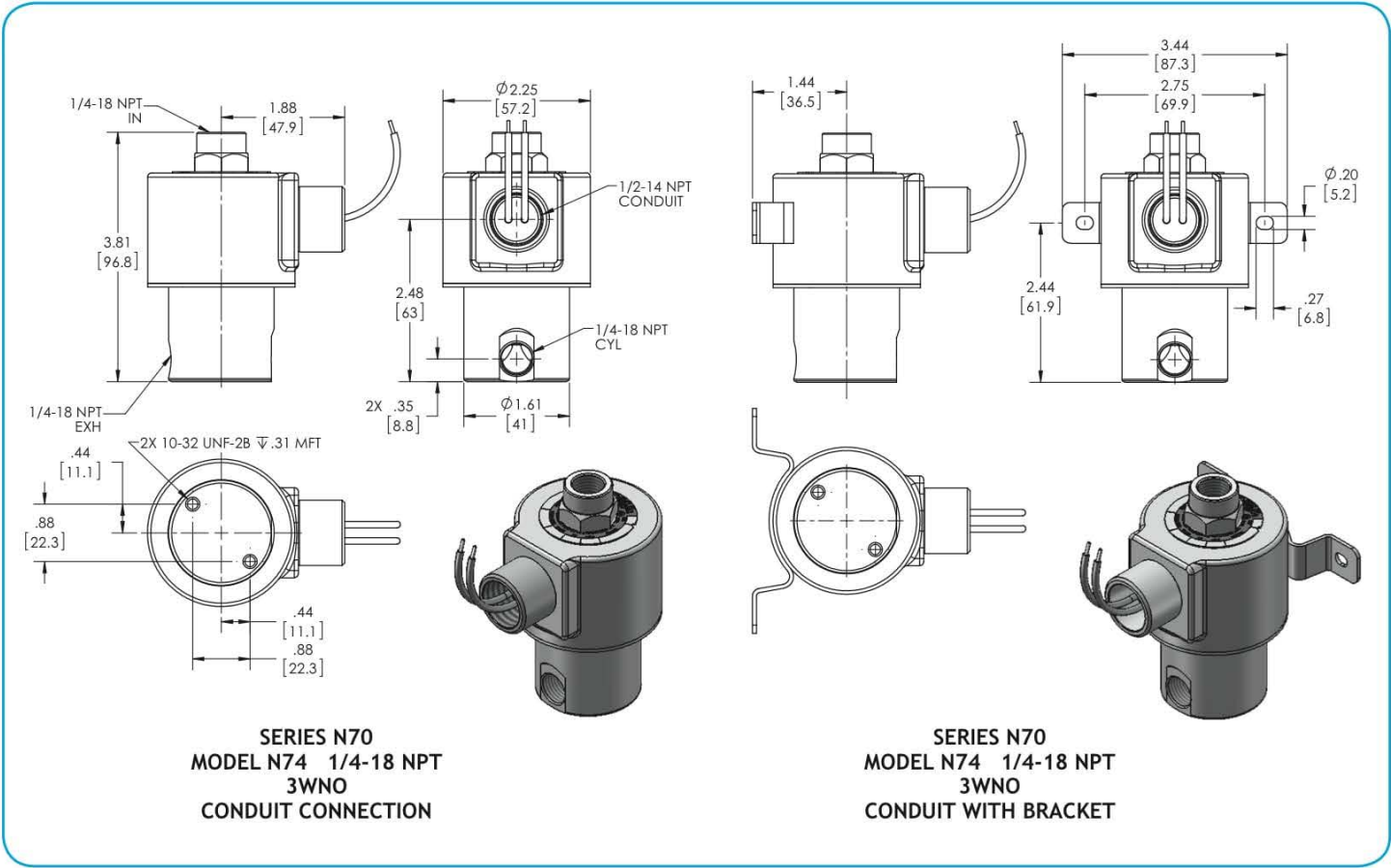
Valve Weight: Conduit Valve: 2.06 lb

Repair Packs: See table on proceeding page.

Options: Alternate Port Locations, Metering and Alternate Elastomers

* Consult representative or factory for options and specifications.





VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		ORIFICE SIZE		CV FACTOR		VALVE NUMBER
AC	DC	N.O.	N.C.	N.O.	N.C.	CONDUIT HOUSING
1/4 NPT PORTS						
350	350	1/16	1/16	.09	.09	N74JJ9ZCP
250	250	3/32	3/32	.22	.22	N74KK9ZCP
175	175	1/8	1/8	.35	.35	N74NN9ZCP
125	125	5/32	5/32	.45	.45	N74OO9ZCP
100	100	3/16	3/16	.50	.50	N74PP9ZCP

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (N74PP9ZCP 120/60) REPAIR PACK (KN74PPX AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (ON74PP9DCP 120/60)

HAZARDOUS LOCATION VALVES



Note: This valve also available as an operator. Refer to following page.

Series 70 >> Model N75

Hazardous Location – 3-Way Directional Control Valve

The N70 line Peter Paul Hazardous location valves are UL listed and certified for non-incendive hazardous location Class 1, Div 2, Groups A, B, C and D; Class 2, Div 2, Groups E, F and G; T3C temperature rating.

- **Largest direct acting (non-piloted) valve we manufacture.**
- **Large orifice.**
- **High flow.**
- **Will operate effectively at very low pressures or vacuum.**

OPERATING CONDITIONS

Media: Air, water, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, and many oils require special seal materials. (Series 70 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 4000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 12 to 1150V AC 60 HZ. and 11 to 1035V AC 50 HZ. – 2.5 to 220V DC

Nominal Power: AC – 18.0 Watts DC – 16.0 Watts

Coil Construction: Potted Class F or Class H (Opt.)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.) or Brass (Opt.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: Standard 1/4" NPT (other ports available).*

Housing: 1/2" NPT conduit*

Listings: Listed and Certified for Non-Incendive Hazardous Locations Class 1, Div 2, Groups A, B, C and D; Class 2, Div 2, Groups E, F and G; T3C Temperature rating.*

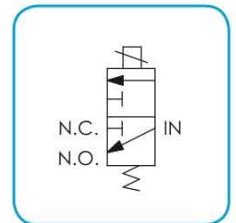
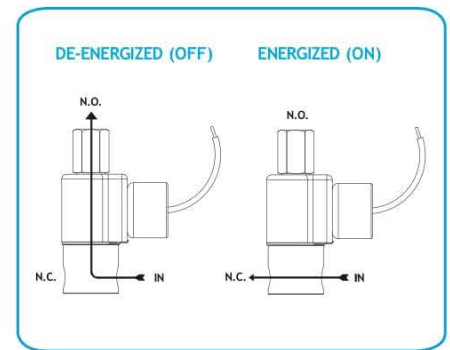
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

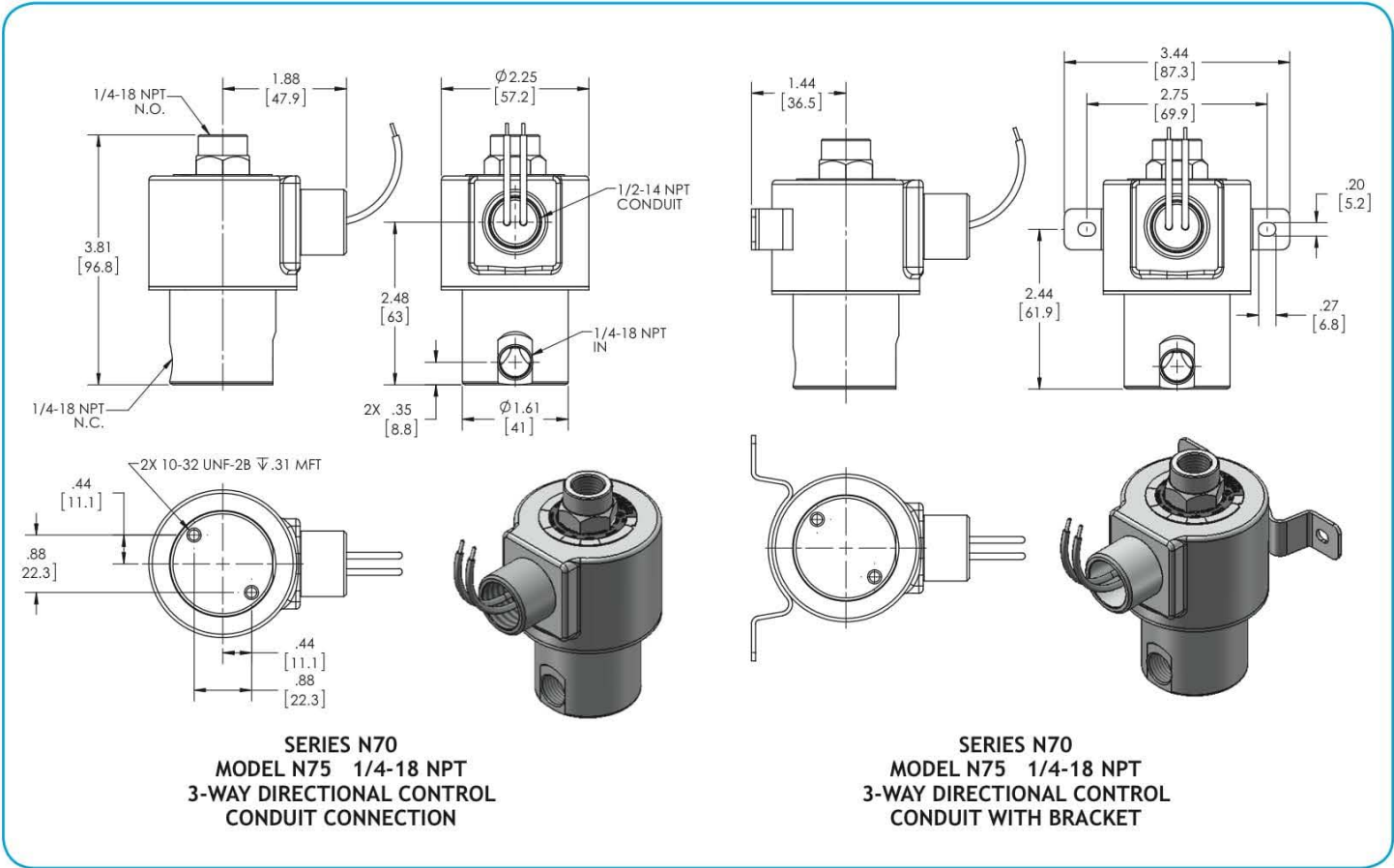
Valve Weight: Conduit Valve: 2.06 lb

Repair Packs: See table on proceeding page.

Options: Alternate Port Locations, Metering and Alternate Elastomers

* Consult representative or factory for options and specifications.





VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		ORIFICE SIZE		CV FACTOR		VALVE NUMBER
AC	DC	N.C.	N.O.	N.C.	N.O.	GROMMET HOUSING
350	350	1/16	1/16	.09	.09	N75JJ9ZCP
250	250	3/32	3/32	.22	.22	N75KK9ZCP
175	175	1/8	1/8	.35	.35	N75NN9ZCP
125	125	5/32	5/32	.45	.45	N75OO9ZCP
100	100	3/16	3/16	.50	.50	N75PP9ZCP

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (N75OO9ZCP 120/60) REPAIR PACK (KN75OOX AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (ON75OO9DCP 120/60)

HAZARDOUS LOCATION VALVES



Series 70 >> Model N76

Hazardous Location – 3-Way Multi-Purpose Valve

The N70 line Peter Paul Hazardous location valves are UL listed and certified for non-incendive hazardous location Class 1, Div 2, Groups A, B, C and D; Class 2, Div 2, Groups E, F and G; T3C temperature rating.

- **Largest direct acting (non-piloted) valve we manufacture.**
- **Large orifice.**
- **High flow.**
- **Will operate effectively at very low pressures or vacuum.**

Note: This valve also available as an operator. Refer to following page.

OPERATING CONDITIONS

Media: Air, water, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, and many oils require special seal materials. (Series 70 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 4000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 12 to 1150V AC 60 HZ. and 11 to 1035V AC 50 HZ. – 2.5 to 220V DC

Nominal Power: AC – 18.0 Watts DC – 16.0 Watts

Coil Construction: Potted Class F or Class H (Opt.)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.) or Brass (Opt.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: Standard 1/4" NPT (other ports available).*

Housing: 1/2" NPT conduit*

Listings: Listed and Certified for Non-Incendive Hazardous Locations Class 1, Div 2, Groups A, B, C and D; Class 2, Div 2, Groups E, F and G; T3C Temperature rating.*

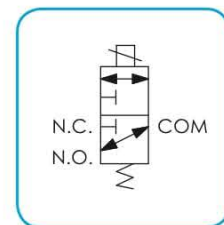
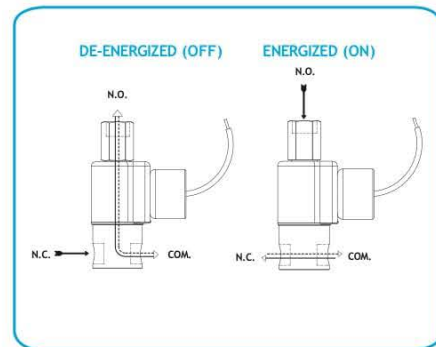
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

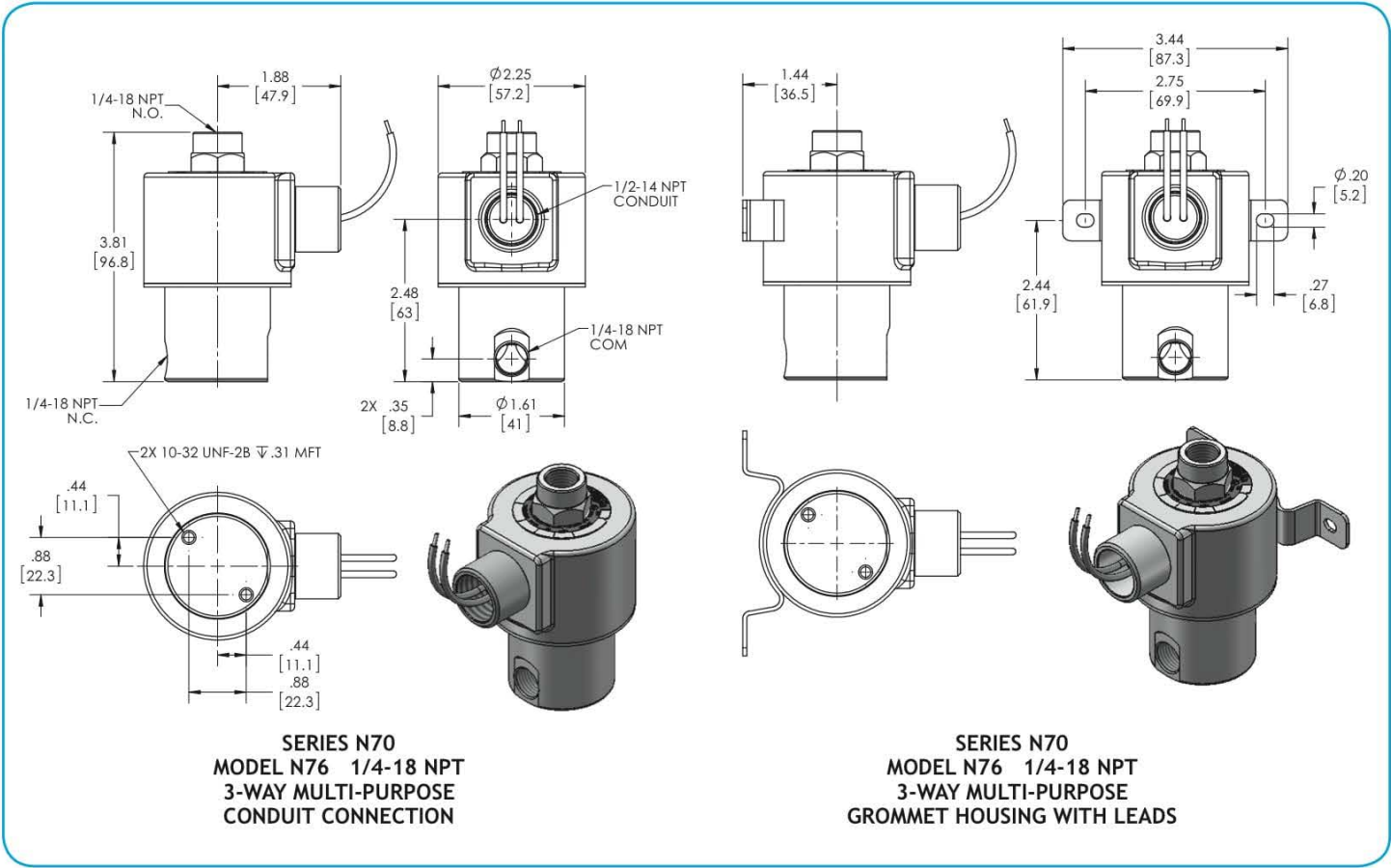
Valve Weight: Conduit Valve: 2.06 lb

Repair Packs: See table on proceeding page.

Options: Alternate Port Locations, Metering and Alternate Elastomers

* Consult representative or factory for options and specifications.





VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		ORIFICE SIZE		CV FACTOR		VALVE NUMBER
AC	DC	N.C.	N.O.	N.C.	N.O.	GROMMET HOUSING
						1/4 NPT PORTS
225	225	1/16	1/16	.09	.09	N76JJ9ZCP
150	150	3/32	3/32	.22	.22	N76KK9ZCP
100	100	1/8	1/8	.35	.35	N76NN9ZCP
75	75	5/32	5/32	.45	.45	N76OO9ZCP
60	60	3/16	3/16	.50	.50	N76PP9ZCP

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (N76KK9ZCP 120/60) REPAIR PACK (NK76KKX AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (ON76KK9DCP 120/60)



Series 80 >> Model E827

Large Orifice, Direct Lift – 2-Way Normally Closed Valve

Peter Paul offers a line of large orifice solenoid valves to address process industry requirements for high flow rate or quick dump and fill capacity. These AC or DC powered valves are also suited for low pressure gas and liquid applications. Port sizes for direct lift, two way normally closed versions range from 3/8" to 3/4" NPT, with pressure ratings from 0 to 100 PSI.

- Large orifice sizes for high flow applications.
- Body is made of brass forgings or 316 stainless steel.
- Operates at low pressure without any differential pressure across the diaphragm – Direct Lift.
- NPT threaded connections.
- Direct Lift model is available in normally closed only.

OPERATING CONDITIONS

Media: Air, water, and other fluids compatible with Buna seals. Hot water, steam, gasoline and many oils require special seal materials. Consult representative or factory. (Series 80 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Leakage: Bubbletight

ELECTRICAL CHARACTERISTICS

Coil Voltage: 6 to 825V AC 60 HZ. and 5 to 720V AC 50 HZ. – 1.8 to 265V DC

Nominal Power: AC – 7.3 Watts DC – 9.5 Watts

Coil Construction: Molded (Std.) and Potted Class F or Class H (Opt.)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 100 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Brass (Std.), 316 Stainless Steel (Opt.)

Internal Components: Stainless Steel (Std.)

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Housing: 1/2" NPT conduit

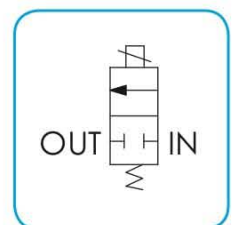
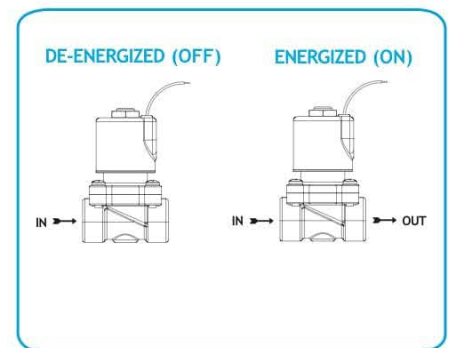
Listings: Valves are UL listed and CSA certified for Hazard Locations – Class I, Div 1, Group C and D - Class II, Div 1, Group E, F, and G; Div 2, Groups C, D, E, F, and G.

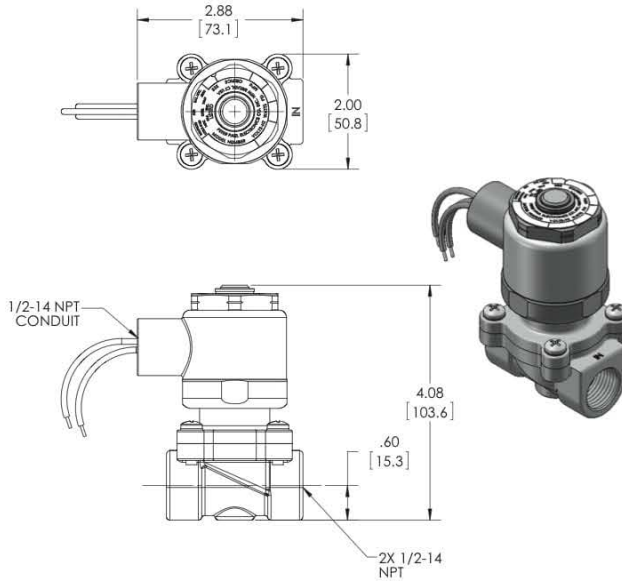
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

Repair Kits: See table on proceeding page.

Options: Alternate Elastomers.

* Consult representative or factory for options and specifications.





**SERIES 80
MODEL E827
1/2 NPT PORTS
2WNC
EXPLOSION PROOF**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		MIN. OPER. PRESS. DIFF.	ORIFICE SIZE	CV FACTOR	PIPE SIZE	VALVE NUMBER
AC	DC		N.C.	N.C.		
100	40	0	1/2	4.0	3/8 NPT	E827T20DCCM
100	40	0	1/2	4.0	1/2 NPT	E827B12DCCM
100	30	0	3/4	5.0	3/4 NPT	E827Y19DCCM

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (E827B12DCCM 120/60) REPAIR PACK (2KE827B12 AC)

NO OPERATOR AVAILABLE

HAZARDOUS LOCATION VALVES



Series 80 >> Model E828

Large Orifice, Internally Piloted – 2-Way Normally Closed Valve

Peter Paul offers a line of large orifice solenoid valves to address process industry requirements for high flow rate or quick dump and fill capacity. These AC or DC powered valves are also suited for low pressure gas and liquid applications. Port sizes for pilot lift, two way normally closed versions range from 1/2" to 3" NPT, with pressure ratings from 3 to 200 PSI.

- Large orifice sizes for high flow applications.
- Body is made of brass forgings or 316 stainless steel.
- Operates on differential pressure – Internal Pilot.
- NPT threaded connections.
- Same coils and housings as our popular 20 Series.

OPERATING CONDITIONS

Media: Air, water, and other fluids compatible with Buna seals. Hot water, steam, gasoline and many oils require special seal materials. Consult representative or factory. (Series 80 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Minimum Operating Pressure Differentials: 3 PSI

Leakage: Bubbletight

ELECTRICAL CHARACTERISTICS

Coil Voltage: 6 to 825V AC 60 HZ. and 5 to 720V AC 50 HZ. – 1.8 to 265V DC

Nominal Power: AC – 7.7 Watts DC – 9.5 Watts

Coil Construction: Molded (Std.) and Potted Class F or Class H (Opt.)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 100 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Brass (Std.) – Stainless Steel (Opt.)

Internal Components: Stainless Steel (Std.)

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Housing: 1/2" NPT conduit

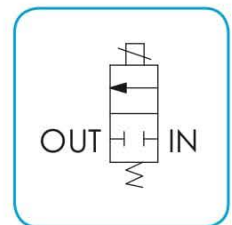
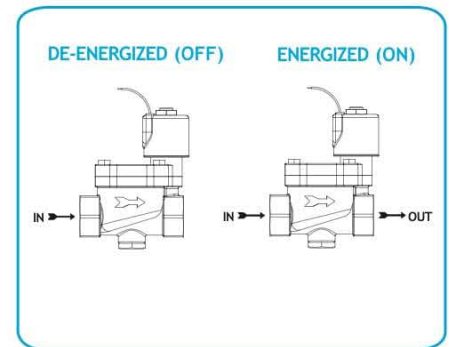
Listings: Valves are UL listed and CSA certified for Hazard Locations – Class I, Div 1, Group C and D - Class II, Div 1, Group E, F, and G; Div 2, Groups C, D, E, F, and G.

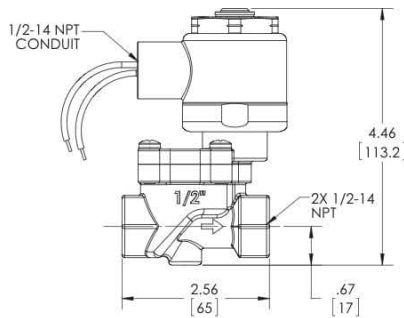
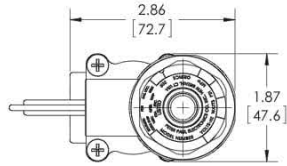
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

Repair Kits: See table on proceeding page.

Options: Alternate Elastomers and Manual Override

* Consult representative or factory for options and specifications.





**SERIES 80
MODEL E827
1/2 NPT PORTS
2WNC INTERNAL PILOT
EXPLOSION PROOF**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		MIN. OPER. PRESS. DIFF.	ORIFICE SIZE	CV FACTOR	PIPE SIZE	VALVE NUMBER
AC	DC		N.C	N.C.		
200	200	3	1/2	4.0	1/2 NPT	E828B12DCCM
200	200	3	3/4	5.8	3/4 NPT	E828Y19DCCM
200	200	3	1	13.0	1 NPT	E828D13DCCM
200	200	3	1 1/2	29.0	1 1/2 NPT	E828E14DCCM
200	200	3	2	46.0	2 NPT	E828F16DCCM
200	200	3	3	76.0	2 1/2 NPT	E828W17DCCM
200	200	3	3	98.0	3 NPT	E828W18DCCM

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (E828B12DCCM 120/60) REPAIR PACK (2KE828B12DD AC)

NO OPERATOR AVAILABLE



Series 80 >> Model E828 C/I Rated

Large Orifice, Internally Piloted – 2-Way Normally Closed Valve

Peter Paul offers a line of Hazardous Location rated, large orifice Automatic Safety Shut Off Valves designed specifically for gas appliances. These valves meet the standards for Commercial/Industrial (C/I) Safety Shut Off Valves per ANSI Z21.21 (CSA 6.5). They are well suited for use in heating equipment, furnaces, ovens, kilns, boilers and gas generators.

- Large orifice sizes for high capacity.
- Body is made of 316 stainless steel.
- Potted coil for outdoor service.
- Operates on differential pressure – Internal Pilot.
- Voltages: 120/60, 12/DC and 24/DC
- Power Input: 1.8 watts
- Rated for ambient temperatures of -40° C to +65° C
- NPT threaded connections.

OPERATING CONDITIONS

Media: Fuel gas.

Valve Temperature Range: - 40° F (-40° C) to 150° F (65° C) ambient and media.

Maximum Operating Pressure Differentials: See table on proceeding page.

Minimum Operating Pressure Differentials: 3 PSI

Leakage: Bubbletight

ELECTRICAL CHARACTERISTICS

Coil Voltage: 120V AC 60 HZ, 12V DC and 24V DC

Nominal Power: 1.8 Watts

Coil Construction: Potted Class F

Operating Speed: Up to 100 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: 316 Stainless Steel

Internal Components: Stainless Steel (Std.)

Elastomers: Nitrile (Buna) (Std.)

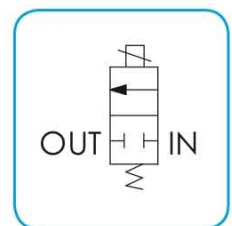
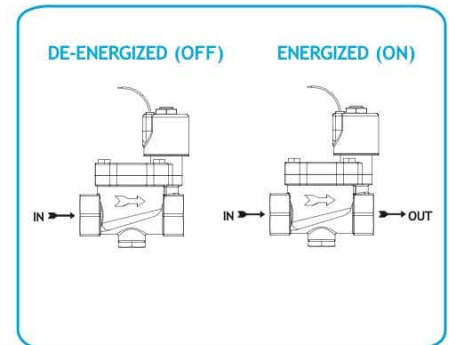
Housing: 1/2" NPT conduit

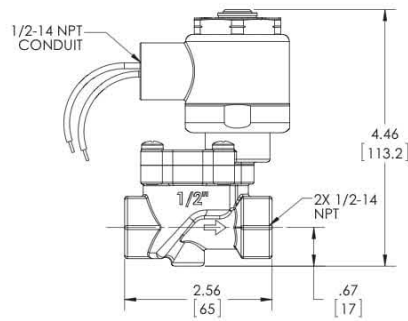
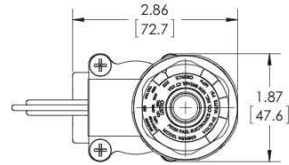
Listings: Valves are UL listed and CSA certified for Hazard Locations – Class I, Div 1, Group C and D - Class II, Div 1, Group E, F, and G; Div 2, Groups C, D, E, F, and G.

Life Expectancy: Millions of cycles, depending on application variables.

Repair Kits: See table on proceeding page.

* Consult representative or factory for options and specifications.





**SERIES 80
MODEL E828 C/I RATED
1/2 NPT PORTS
2WNC INTERNAL PILOT
EXPLOSION PROOF**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		MIN. OPER. PRESS. DIFF.	GAS CAPACITY BTU/Hr	CV FACTOR	PIPE SIZE	VALVE NUMBER
AC	DC			N.C.	N.C.	
30	30	3	3,375,000	5.8	3/4 NPT	E828Y29DCCP-S
30	30	3	7,575,000	13.0	1 NPT	E828D23DCCP-S
30	30	3	16,875,000	29.0	1 1/2 NPT	E828E24DCCP-S

Capacity is calculated at a 3 PSI pressure drop, 7.5 PSI inlet pressure with 1,000 BTU/Cu. FT, .64 Specific Gravity Gas

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (E828D23DCCP-S 24/DC) SOLENOID REPAIR KIT (80-30043-DC or 80-30043-AC) BODY REPAIR KITS (80-30044 for 3/4", 80-30045 for 1", 80-30046 for 1 1/2")

NO OPERATOR AVAILABLE



Series 80 >> Model 829B

Very Large Orifice, Linked-Piloted – 2-Way Normally Closed Valve

Super valves that have ratings that formerly required valves of much greater size. They are higher flow at low pressures and have quick media fill or dump for air and inert gases.

- Large orifice.
- High flow at high and low pressures.

OPERATING CONDITIONS

Media: Air and inert gases.

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 1000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 12 to 1150V AC 60 HZ. and 11 to 1035V AC 50 HZ. – 2.5 to 220V DC

Nominal Power: AC – 18.0 Watts DC – 16.0 Watts

Coil Construction: Molded and Potted Class F, Class H (Opt.)

Operating Speed: Up to 100 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Aluminum anodized, corrosion resistant

Internal Components: Stainless Steel and Anodized Aluminum

Elastomers: Buna (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: 1/2" NPT

Housing: Grommet and 1/2" NPT conduit - many options available.*

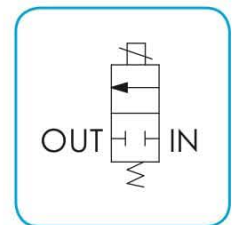
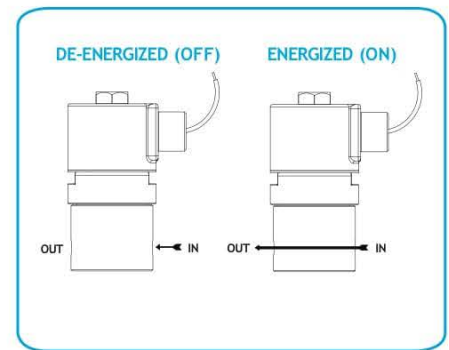
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

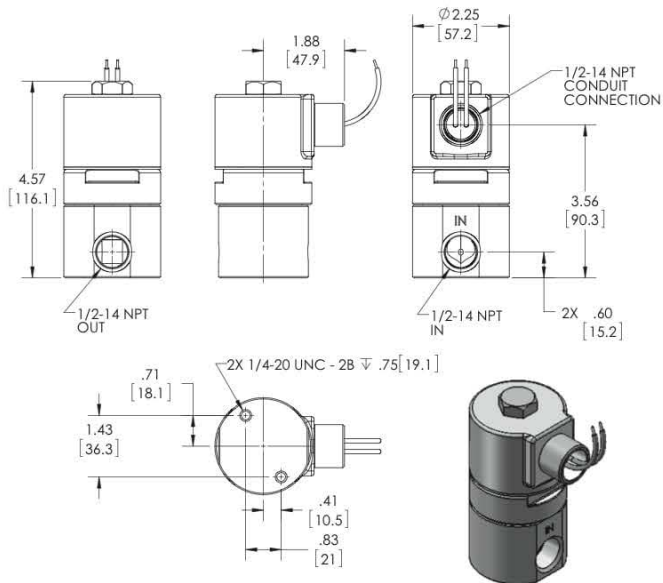
Valve Weight: 2.20 lbs

Repair Packs: See table on proceeding page.

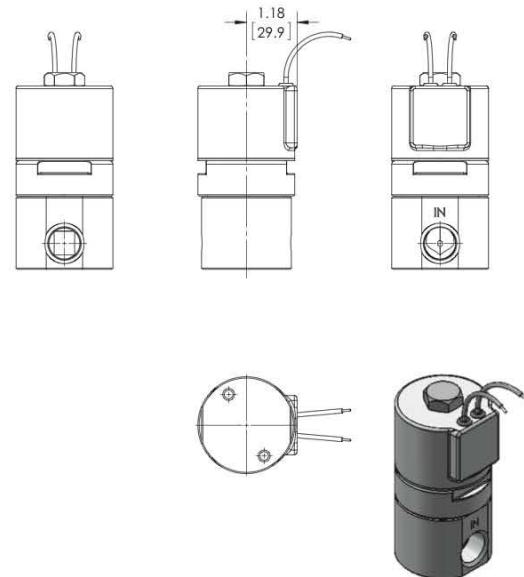
Options: Alternate Elastomers, valves for oil and water available.*

* Consult representative or factory for options and specifications.





**SERIES 80
MODEL 829B
1/2-14 NPT
2WNC
CONDUIT CONNECTION**



**SERIES 80
MODEL 829B
1/2-14 NPT
2WNC
GROMMET HOUSING WITH LEADS**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		ORIFICE SIZE	CV FACTOR	VALVE NUMBER	CONDUIT HOUSING
AC	DC	N.C.	N.C.	GROMMET HOUSING 1/2 NPT PORTS	1/2 NPT PORTS
150	150	1/2	3.50	829B11DGM	829B11DCM

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (829B11DGM 120/60) REPAIR PACK (K829BD AC)

NO OPERATOR AVAILABLE



Note: This valve also available as an operator. Refer to following page.

Series L58 >> Model L581

Very Low Watt – 2-Way Normally Open Valve

Easily interfaced with circuit boards and miniaturized components. The versatility is for connecting electronic signals to pneumatic outputs. The small size is ideal for stand alone (with #10-32 UNF-2B ports) or multiple valves mounted on one manifold. Air and other common gases – filtration recommended – 30 microns or less.

- May be used to “pilot” larger valves.
- Ideal for micro electronic production equipment.
- Great for medical and chemical analytical applications.
- Can operate directly from most programmable controllers.
- High quality engineering.

OPERATING CONDITIONS

Media: Air and other common gases – filtration recommended – 30 microns or less.

Valve Temperature Range: Standard Valves - 5°F (-15°C) to 122°F (50°C) ambient and media. Note: Do not allow water to freeze when using plastic body.

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 1500 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 3.0 to 72V DC

Nominal Power: DC – 0.9 Watts

Coil Construction: Molded Class A with leadwires (Std.), Micro DIN (Opt.).

Typical Response Time on Air: DC - 9 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Polyester Plastic (Std.), Round Brass or Stainless Steel (Opt.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: #10-32 UNF-2B

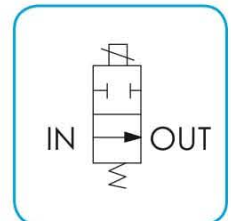
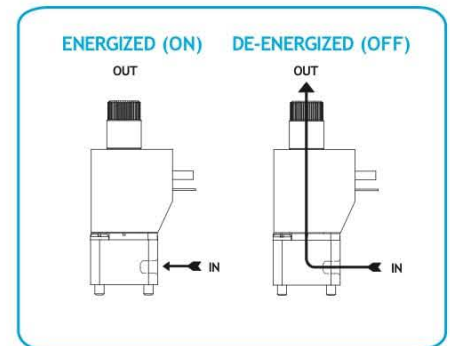
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

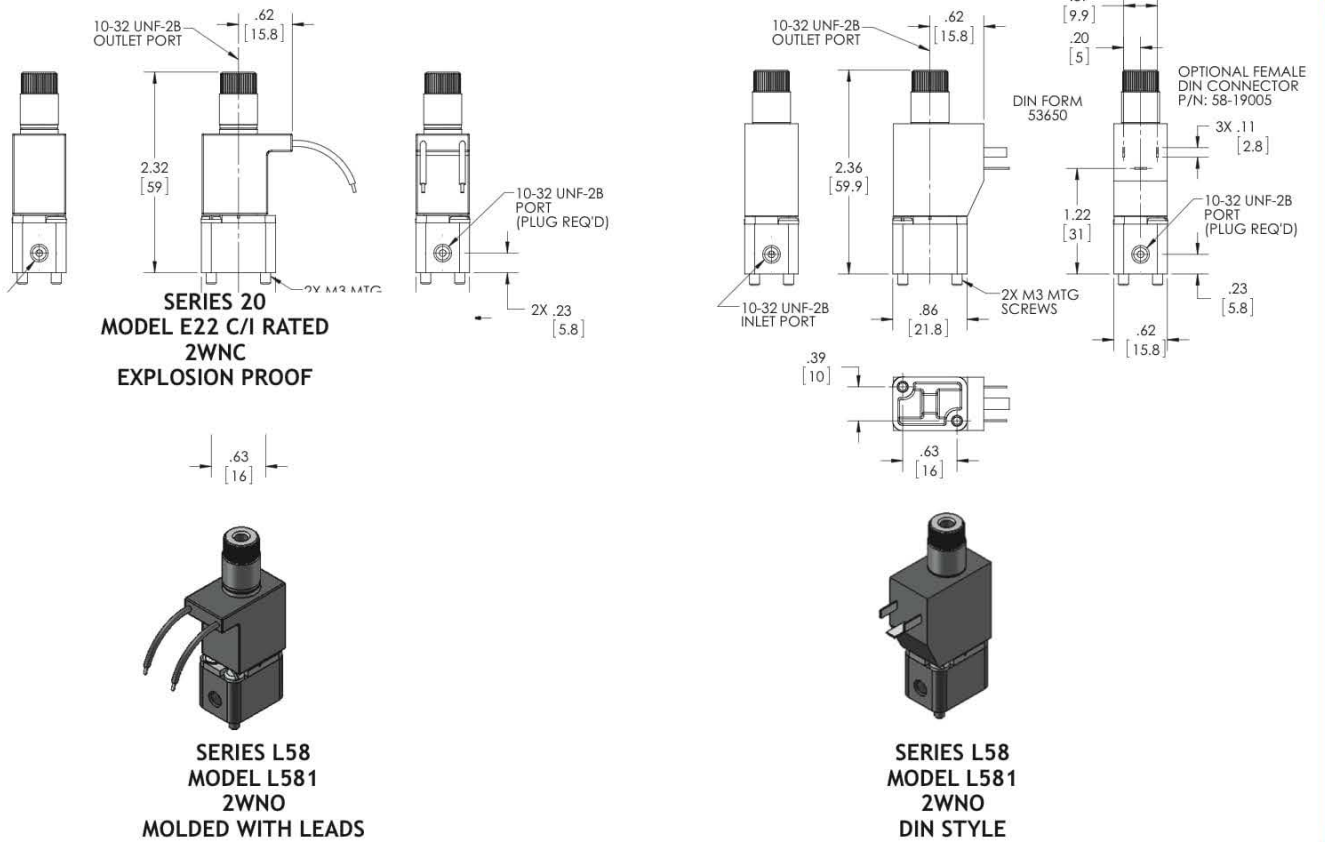
Valve Weight: 0.13 lbs

Repair Packs: See table on proceeding page.

Options: Round Stainless Steel or Brass Body, Male Stud Mount, Manual Override, M5 Ports.*

* Consult representative or factory for options and specifications.





VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.	ORIFICE SIZE N.O.	CV FACTOR N.O.	VALVE NUMBER	
			LEAD WIRE	MICRO DIN
150	0.6 mm	.010	L581A19PGM	L581A19PE
130	0.8 mm	.020	L581F19PGM	L581F19PE

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (L581F19PG 12/DC) REPAIR PACK (KL581F19 DC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (OL581FDPG 12/DC)



Note: This valve also available as an operator. Refer to following page.

Series L58 >> Model L582

Very Low Watt – 2-Way Normally Closed Valve

Easily interfaced with circuit boards and miniaturized components. The versatility is for connecting electronic signals to pneumatic outputs. The small size is ideal for stand alone (with #10-32 UNF-2B ports) or multiple valves mounted on one manifold. Air and other common gases – filtration recommended – 30 microns or less.

- May be used to “pilot” larger valves.
- Ideal for micro electronic production equipment.
- Great for medical and chemical analytical applications.
- Can operate directly from most programmable controllers.
- High quality engineering.

OPERATING CONDITIONS

Media: Air and other common gases – filtration recommended – 30 microns or less.

Valve Temperature Range: Standard Valves – 5°F (-15°C) to 122°F (50°C) ambient and media

Note: Do not allow water to freeze when using a plastic body.

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 1500 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 3.0 to 72V DC

Nominal Power: DC – .9 Watts

Coil Construction: Molded Class A with leadwires and Micro DIN.

Typical Response Time on Air: DC – 9 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Polyester Plastic (Std.), Round Brass or Stainless Steel (Opt.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: #10-32 UNF-2B

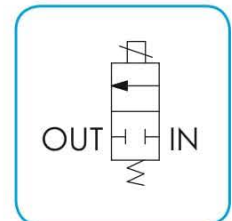
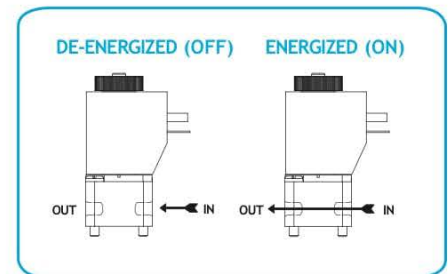
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

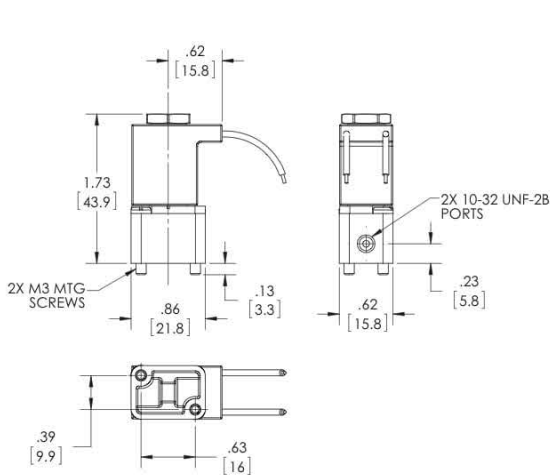
Valve Weight: 0.13 lbs

Repair Packs: See table on proceeding page.

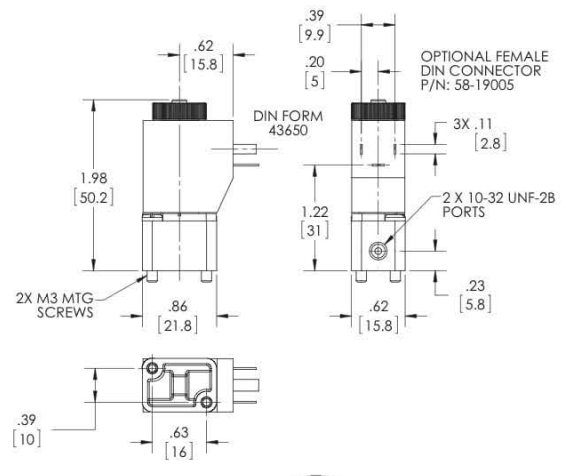
Options: Round Stainless Steel or Brass Body, Male Stud Mount, Manual Override, M5 Ports and Manifold Mount.*

* Consult representative or factory for options and specifications.





**SERIES L58
MODEL L582
2WNC
MOLDED WITH LEADS**



**SERIES L58
MODEL L582
2WNC
DIN STYLE**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.	ORIFICE SIZE N.O.	CV FACTOR N.O.	VALVE NUMBER	
			LEAD WIRE	MICRO DIN
150	0.6 mm	.010	L582A19DGM	L582A19DE

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (L582A19DG 12/DC) REPAIR PACK (KL582A19 DC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (OL582ADG 12/DC)



Note: This valve also available as an operator. Refer to following page.

Series L58 >> Model L583

Very Low Watt – 3-Way Normally Closed Valve – Exhaust to Atmosphere

Easily interfaced with circuit boards and miniaturized components. The versatility is for connecting electronic signals to pneumatic outputs. The small size is ideal for stand alone (with #10-32 UNF-2B ports) or multiple valves mounted on one manifold. Air and other common gases – filtration recommended – 30 microns or less.

- May be used to “pilot” larger valves.
- Ideal for micro electronic production equipment.
- Great for medical and chemical analytical applications.
- Can operate directly from most programmable controllers.
- High quality engineering.

OPERATING CONDITIONS

Media: Air and other common gases – filtration recommended – 30 microns or less.

Valve Temperature Range: Standard Valves – 5°F (-15°C) to 122°F (50°C) ambient and media. Note: Do not allow water to freeze when using a plastic body.

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 1500 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 3.0 to 72V DC

Nominal Power: DC – .9 Watts

Coil Construction: Molded Class A with leadwires and Micro DIN.

Typical Response Time on Air: DC – 9 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Polyester Plastic (Std.), Round Brass or Stainless Steel (Opt.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: #10-32 UNF-2B

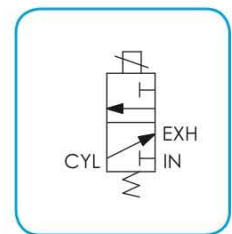
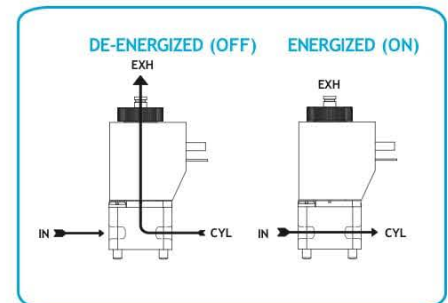
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

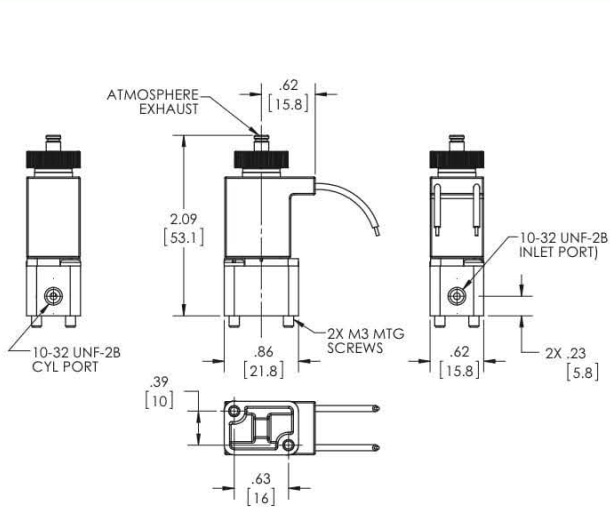
Valve Weight: 0.13 lbs

Repair Packs: See table on proceeding page.

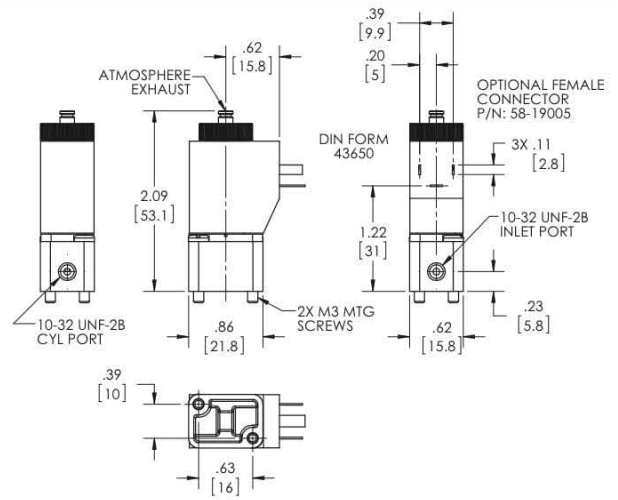
Options: Round Stainless Steel or Brass Body, Male Stud Mount, Manual Override, M5 Ports and Manifold Mount.*

* Consult representative or factory for options and specifications.





**SERIES L58
MODEL L583
3WNC EXHAUST TO ATMOSPHERE
MOLDED WITH LEADS**



**SERIES L58
MODEL L583
3WNC EXHAUST TO ATMOSPHERE
DIN STYLE**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.	ORIFICE SIZE		CV FACTOR		VALVE NUMBER	
	DC	N.C	N.O.	N.C.	N.O.	LEAD WIRE
145	0.6 mm	0.6 mm	.010	.010	L583AA19DGM	L583AA19DE
145	0.6 mm	0.8 mm	.010	.020	L583AF19DGM	L583AF19DE

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (L583AF19DG 12/DC) REPAIR PACK (L583AF19DG DC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (OL583AFDG 12/DC)



Note: This valve also available as an operator. Refer to following page.

Series L58 >> Model L583

Very Low Watt – 3-Way Normally Closed Valve – Piped Exhaust

Easily interfaced with circuit boards and miniaturized components. The versatility is for connecting electronic signals to pneumatic outputs. The small size is ideal for stand alone (with #10-32 UNF-2B ports) or multiple valves mounted on one manifold. Air and other common gases – filtration recommended – 30 microns or less.

- May be used to “pilot” larger valves.
- Ideal for micro electronic production equipment.
- Great for medical and chemical analytical applications.
- Can operate directly from most programmable controllers.
- High quality engineering.

OPERATING CONDITIONS

Media: Air and other common gases – filtration recommended – 30 microns or less.

Valve Temperature Range: Standard Valves – 5°F (-15°C) to 122°F (50°C) ambient; media. Note: Do not allow water to freeze when using plastic body.

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 1500 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 3.0 to 72V DC

Nominal Power: DC – .9 Watts

Coil Construction: Molded Class A with leadwires and Micro DIN.

Typical Response Time on Air: DC – 9 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Polyester Plastic (Std.), Round Brass or Stainless Steel (Opt.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: #10-32 UNF-2B

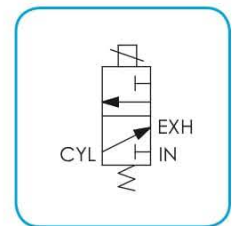
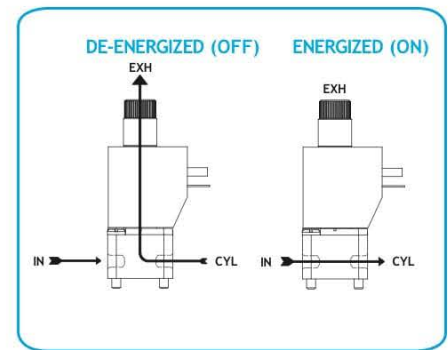
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

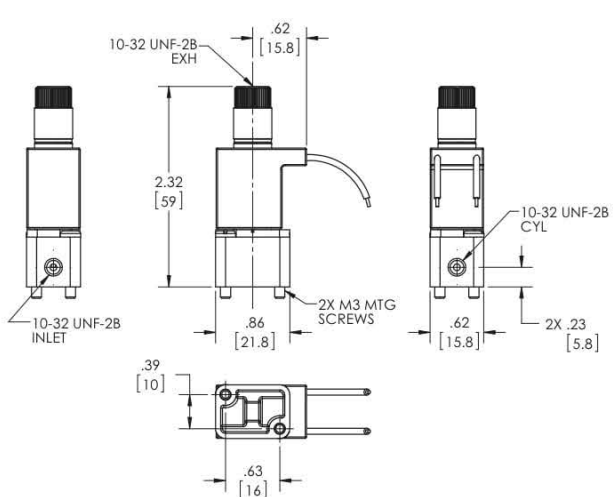
Valve Weight: 0.13 lbs

Repair Packs: See table on proceeding page.

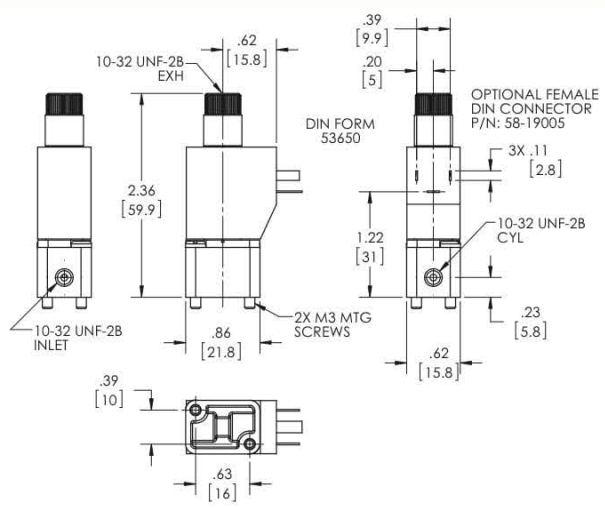
Options: Round Stainless Steel or Brass Body, Male Stud Mount, Manual Override, M5 Ports and Manifold Mount.*

* Consult representative or factory for options and specifications.





**SERIES L58
MODEL L583
3WNC PIPED EXHAUST
MOLDED WITH LEADS**



**SERIES L58
MODEL L583
3WNC PIPED EXHAUST
DIN STYLE**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.	ORIFICE SIZE		CV FACTOR		VALVE NUMBER	
	DC	N.C	N.O.	N.C.	N.O.	LEAD WIRE
145	0.6 mm	0.6 mm	.010	.010	L583AA19PGM	L583AA19PE
145	0.6 mm	0.8 mm	.010	.020	L583AF19PGM	L583AF19PE

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (L583AF19PG 12/DC) REPAIR PACK (L583AF19G DC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (OL583AF19DG 12/DC)



Note: This valve also available as an operator. Refer to following page.

Series 50 LW >> Model LW51

Low Wattage – 2-Way Normally Open Valve

General purpose for pneumatic and hydraulic applications. The versatility of these valves is increased to include the handling of hot air, hot water, refrigerants and many other media, by the use of different seals. Air and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, oils, some hydraulic fluids, and many media require special seal materials.

- General purpose valve with reduced power consumption.
- Increased versatility.
- For pneumatic and hydraulic application.

OPERATING CONDITIONS

Media: Air and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, oils, some hydraulic fluids, and many media require special seal materials. (Series 50 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 140°F (60°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 12 to 370V AC 60 HZ. and 10.5 to 345V AC 50 HZ. – 6.0 to 120V DC

Nominal Power: AC – 2.5 Watts DC – 2.5 Watts

Coil Construction: Molded and potted Class F. (Class H optional)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.), Brass (Opt.) or Aluminum (Opt.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: 1/8" NPT (Std.)

Housing: Grommet and 1/2" NPT conduit - many options available.*

Listings: Most valves are UL and CSA listed – consult factory.

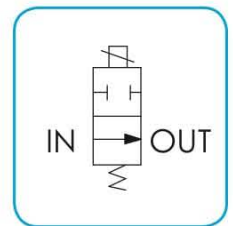
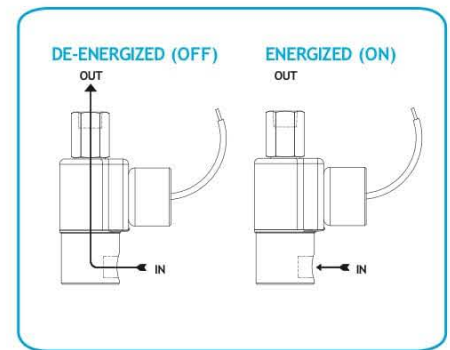
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

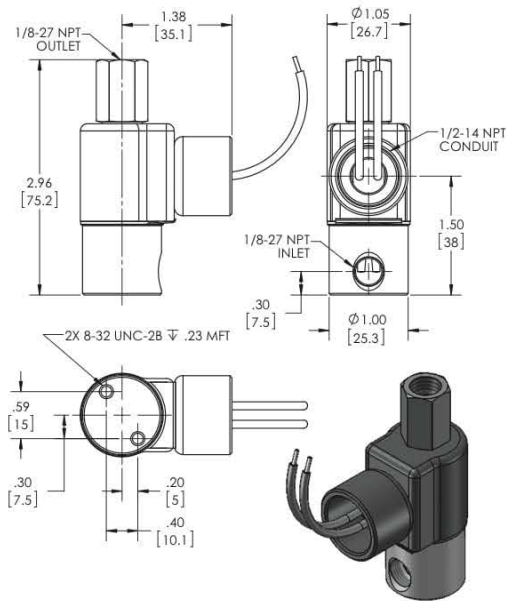
Valve Weight: Grommet Valve: 0.38 lbs, Conduit Valve: 0.44 lbs

Repair Packs: See table on proceeding page.

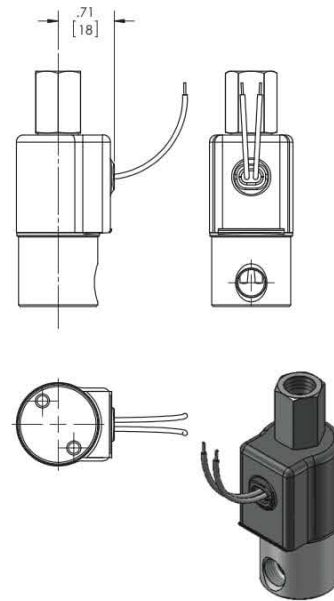
Options: Alternate Port Locations, Metering and Alternate Elastomers*

* Consult representative or factory for options and specifications.





**SERIES 50 LW
MODEL LW51
2WNO
CONDUIT CONNECTION**



**SERIES 50 LW
MODEL LW51
2WNO
GROMMET HOUSING WITH LEADS**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		LIQUID		ORIFICE SIZE N.O.	CV FACTOR N.O.	VALVE NUMBER	
GAS AC	DC	AC	DC			GROMMET 1/8 NPT	CONDUIT 1/8 NPT
300	200	300	200	1/32	.020	LW51G8XGM	LW51G8XCM
270	120	120	65	3/64	.048	LW51H8XGM	LW51H8XCM
135	50	40	30	1/16	.075	LW51J8XGM	LW51J8XCM
70	35	30	20	5/64	.134	LW51V8XGM	LW51V8XCM
55	30	25	15	3/32	.156	LW51K8XGM	LW51K8XCM

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (LW51J8XGML 120/60) REPAIR PACK (KLW51JX AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (QLW51J8DGML 120/60)



Note: This valve also available as an operator. Refer to following page.

Series 50 LW >> Model LW52

Low Wattage – 2-Way Normally Closed Valve

General purpose safety valve for pneumatic and hydraulic applications. The versatility of these valves is increased to include the handling of hot air, hot water, refrigerants and many other media, by the use of different seals. Air and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, oils, some hydraulic fluids, and many media require special seal materials.

- General purpose valve with reduced power consumption.
- Increased versatility.
- For pneumatic and hydraulic application.

OPERATING CONDITIONS

Media: Air and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, oils, some hydraulic fluids, and many media require special seal materials. (Series 50 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 140°F (60°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 12 to 370V AC 60 HZ. and 10.5 to 345V AC 50 HZ. – 6.0 to 120V DC

Nominal Power: AC – 2.5 Watts DC – 2.5 Watts

Coil Construction: Molded and potted Class F. (Class H optional)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.), Brass (Opt.) or Aluminum (Opt.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: 1/8" NPT (Std.)

Housing: Grommet and 1/2" NPT conduit - many options available.*

Listings: Most valves are UL and CSA listed – consult factory.

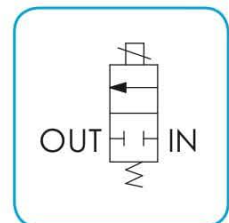
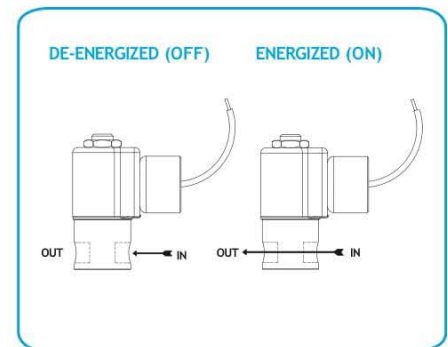
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

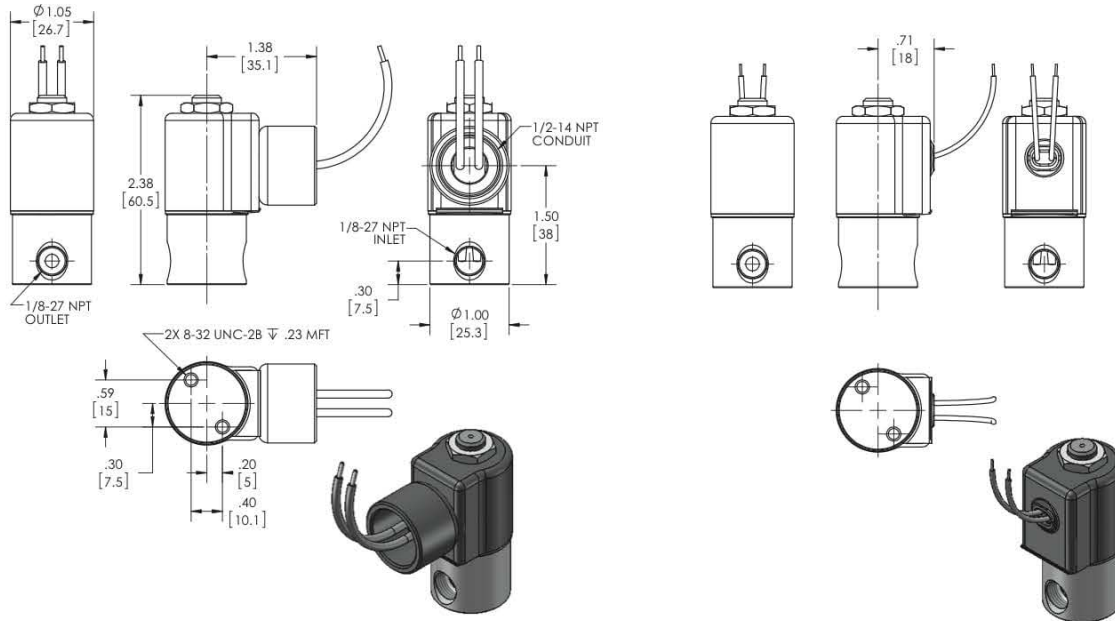
Valve Weight: Grommet Valve: 0.38 lbs, Conduit Valve: 0.44 lbs

Repair Packs: See table on proceeding page.

Options: Alternate Port Locations, Metering and Alternate Elastomers*

* Consult representative or factory for options and specifications.





**SERIES 50 LW
MODEL LW52
2WNC
CONDUIT CONNECTION**

**SERIES 50 LW
MODEL LW52
2WNC
GROMMET HOUSING WITH LEADS**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		GAS		LIQUID		ORIFICE SIZE N.C.	CV FACTOR N.C.	VALVE NUMBER	
AC	DC	AC	DC	AC	DC			GROMMET 1/8 NPT	CONDUIT 1/8 NPT
600*	200	600*	200	1/32	.022	LW52G8DGM	LW52G8DCM		
250	80	250	80	3/64	.055	LW52H8DGM	LW52H8DCM		
150	50	150	50	1/16	.075	LW52J8DGM	LW52J8DCM		
100	25	100	25	5/64	.134	LW52V8DGM	LW52V8DCM		
85	20	85	20	3/32	.156	LW52K8DGM	LW52K8DCM		
50		50		1/8	.230	LW52N8DGM	LW52N8DCM		
15		15		5/32	.292	LW52O8DGM	LW52O8DCM		

* FKM seals not recommended for pressure above 500 psi.

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (LW52J8DGML 120/60) REPAIR PACK (KLW52J AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (QLW52J8DGML 120/60)



Note: This valve also available as an operator. Refer to following page.

Series 50 LW >> Model LW53

Low Wattage –3-Way Normally Closed – Exhaust to Atmosphere

General purpose for pneumatic and hydraulic applications. The versatility of these valves is increased to include the handling of hot air, hot water, refrigerants and many other media, by the use of different seals. Air and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, oils, some hydraulic fluids, and many media require special seal materials.

- General purpose valve with reduced power consumption.
- Increased versatility.
- For pneumatic and hydraulic application.

OPERATING CONDITIONS

Media: Air and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, oils, some hydraulic fluids, and many media require special seal materials. (Series 50 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 140°F (60°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 12 to 370V AC 60 HZ. and 10.5 to 345V AC 50 HZ. – 6.0 to 120V DC

Nominal Power: AC – 2.5 Watts DC – 2.5 Watts

Coil Construction: Molded and potted Class F. (Class H optional)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.), Brass (Opt.) or Aluminum (Opt.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: 1/8" NPT (Std.)

Housing: Grommet and 1/2" NPT conduit - many options available.*

Listings: Most valves are UL and CSA listed – consult factory.

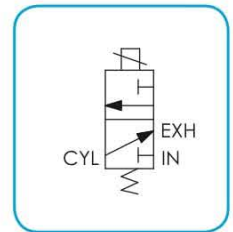
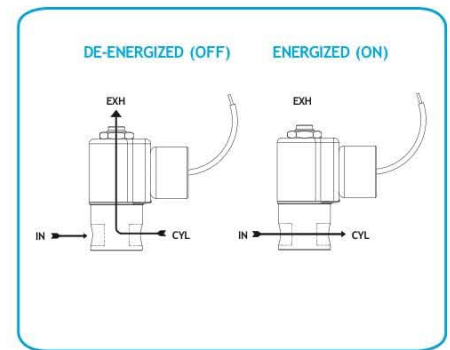
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

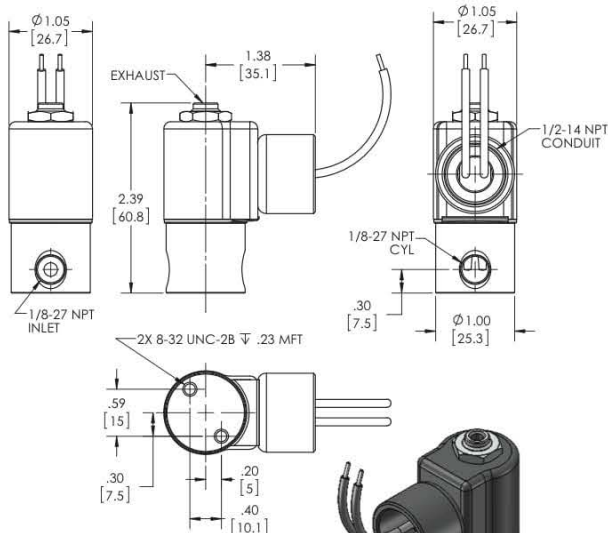
Valve Weight: Grommet Valve: 0.38 lbs, Conduit Valve: 0.44 lbs

Repair Packs: See table on proceeding page.

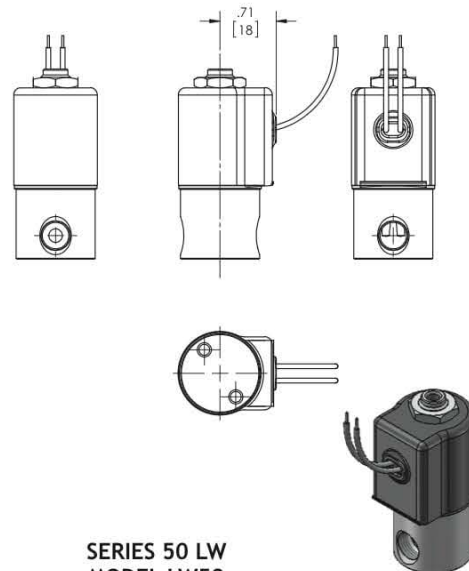
Options: Alternate Port Locations, Metering and Alternate Elastomers*

* Consult representative or factory for options and specifications.





**SERIES 50 LW
MODEL LW52
3WNC EXHAUST TO ATMOSPHERE
CONDUIT CONNECTION**



**SERIES 50 LW
MODEL LW52
3WNC EXHAUST TO ATMOSPHERE
GROMMET HOUSING WITH LEADS**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		LIQUID		ORIFICE SIZE		CV FACTOR		VALVE NUMBER	
GAS		AC	DC	N.C.	N.O.	N.C.	N.O.	GROMMET 1/8 NPT	CONDUIT 1/8 NPT
215	135	215	135	1/32	1/32	.022	.022	LW53GG8DGM	LW53GG8DCM
215	120	120	65	1/32	3/64	.022	.048	LW53GH8DGM	LW53GH8DCM
135	50	40	30	1/32	1/16	.022	.075	LW53GJ8DGM	LW53GJ8DCM
70	35	30	20	1/32	5/64	.022	.134	LW53GV8DGM	LW53GV8DCM
55	30	25	15	1/32	3/32	.022	.156	LW53GK8DGM	LW53GK8DCM
120	70	120	65	3/64	3/64	.055	.048	LW53HH8DGM	LW53HH8DCM
120	50	40	30	3/64	1/16	.055	.075	LW53HJ8DGM	LW53HJ8DCM
70	35	30	20	3/64	5/64	.055	.134	LW53HV8DGM	LW53HV8DCM
55	30	25	15	3/64	3/32	.055	.156	LW53HK8DGM	LW53HK8DCM
85	40	40	30	1/16	1/16	.075	.075	LW53JJ8DGM	LW53JJ8DCM
70	35	30	20	1/16	5/64	.075	.134	LW53JV8DGM	LW53JV8DCM
55	30	25	15	1/16	3/32	.075	.156	LW53JK8DGM	LW53JK8DCM
50	30	30	20	5/64	5/64	.134	.134	LW53VV8DGM	LW53VV8DCM
50	30	25	15	5/64	3/32	.134	.156	LW53VK8DGM	LW53VK8DCM
35	20	25	15	3/32	3/32	.150	.156	LW53KK8DGM	LW53KK8DCM

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (LW53JJ8DGM 120/60) REPAIR PACK (KLW53JJ AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (OLW53JJ8DGM 120/60)



Note: This valve also available as an operator. Refer to following page.

Series 50 LW >> Model LW53

Low Wattage –3-Way Normally Closed – Piped Exhaust

General purpose for pneumatic and hydraulic applications. The versatility of these valves is increased to include the handling of hot air, hot water, refrigerants and many other media, by the use of different seals. Air and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, oils, some hydraulic fluids, and many media require special seal materials.

- General purpose valve with reduced power consumption.
- Increased versatility.
- For pneumatic and hydraulic application.

OPERATING CONDITIONS

Media: Air and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, oils, some hydraulic fluids, and many media require special seal materials. (Series 50 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 140°F (60°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 12 to 370V AC 60 HZ. and 10.5 to 345V AC 50 HZ. – 6.0 to 120V DC

Nominal Power: AC – 2.5 Watts DC – 2.5 Watts

Coil Construction: Molded and potted Class F. (Class H optional)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.), Brass (Opt.) or Aluminum (Opt.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: 1/8" NPT (Std.)

Housing: Grommet and 1/2" NPT conduit - many options available.*

Listings: Most valves are UL and CSA listed – consult factory.

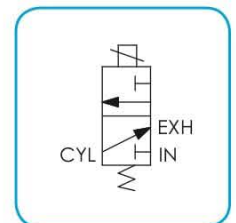
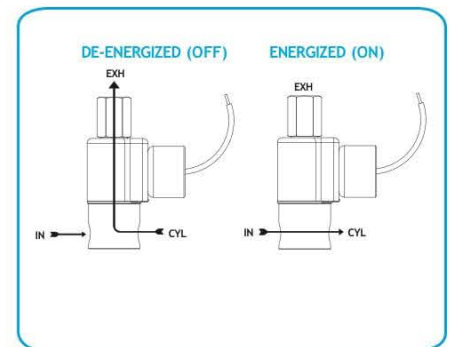
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

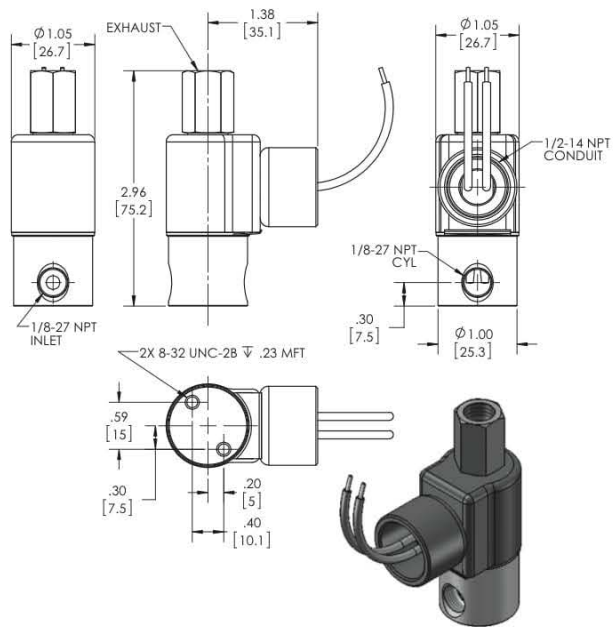
Valve Weight: Grommet Valve: 0.38 lbs, Conduit Valve: 0.44 lbs

Repair Packs: See table on proceeding page.

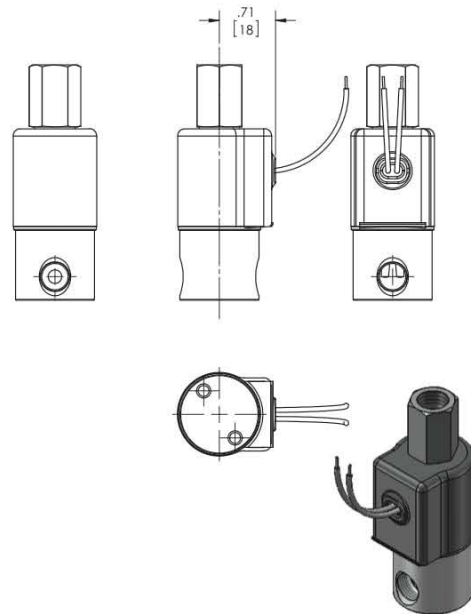
Options: Alternate Port Locations, Metering and Alternate Elastomers*

* Consult representative or factory for options and specifications.





**SERIES 50 LW
MODEL LW53
3WNC PIPED EXHAUST
CONDUIT CONNECTION**



**SERIES 50 LW
MODEL LW53
3WNC PIPED EXHAUST
GROMMET HOUSING WITH LEADS**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		LIQUID		ORIFICE SIZE		CV FACTOR		VALVE NUMBER	
GAS				N.C.		N.O.		GROMMET 1/8 NPT	CONDUIT 1/8 NPT
AC	DC	AC	DC	N.C.	N.O.	N.C.	N.O.		
215	135	215	135	1/32	1/32	.022	.022	LW53GG8XGM	LW53GG8XCM
215	120	120	65	1/32	3/64	.022	.048	LW53GH8XGM	LW53GH8XCM
135	50	40	30	1/32	1/16	.022	.075	LW53GJ8XGM	LW53GJ8XCM
70	35	30	20	1/32	5/64	.022	.134	LW53GV8XGM	LW53GV8XCM
55	30	25	15	1/32	3/32	.022	.156	LW53GK8XGM	LW53GK8XCM
120	70	120	65	3/64	3/64	.055	.048	LW53HH8XGM	LW53HH8XCM
120	50	40	30	3/64	1/16	.055	.075	LW53HJ8XGM	LW53HJ8XCM
70	35	30	20	3/64	5/64	.055	.134	LW53HV8XGM	LW53HV8XCM
55	30	25	15	3/64	3/32	.055	.156	LW53HK8XGM	LW53HK8XCM
85	40	40	30	1/16	1/16	.075	.075	LW53JJ8XGM	LW53JJ8XCM
70	35	30	20	1/16	5/64	.075	.134	LW53JV8XGM	LW53JV8XCM
55	30	25	15	1/16	3/32	.075	.156	LW53JK8XGM	LW53JK8XCM
50	30	30	20	5/64	5/64	.134	.134	LW53VV8XGM	LW53VV8XCM
50	30	25	15	5/64	3/32	.134	.156	LW53VK8XGM	LW53VK8XCM
35	20	25	15	3/32	3/32	.150	.156	LW53KK8XGM	LW53KK8XCM

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (LW53JJ8XGML 120/60) REPAIR PACK (KLW53JJD AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (OLW53JJ8DGML 120/60)



Note: This valve also available as an operator. Refer to following page.

Series 50 LLW >> Model LLW52

Low, Low Wattage – 2-Way Normally Closed Valve

General purpose safety valve for pneumatic applications. The versatility of these valves is increased to include the handling of hot air, refrigerants and many other media, by the use of different seals. Air and other gases compatible with standard Buna seals.

- General purpose valve with reduced power consumption.
- Increased versatility.
- For pneumatic application.
- Increased to handle hot air, refrigerants and other gases.

OPERATING CONDITIONS

Media: Air and other gases compatible with standard Buna seals.

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 140°F (60°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 6.0 to 120V DC

Nominal Power: DC – .65 Watts

Coil Construction: Molded and potted Class F. (Class H optional)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.), Brass (Opt.) or Aluminum (Opt.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: 1/8" NPT (Std.)

Housing: Grommet and 1/2" NPT conduit - many options available.*

Listings: Most valves are UL and CSA listed – consult factory.

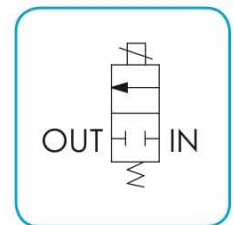
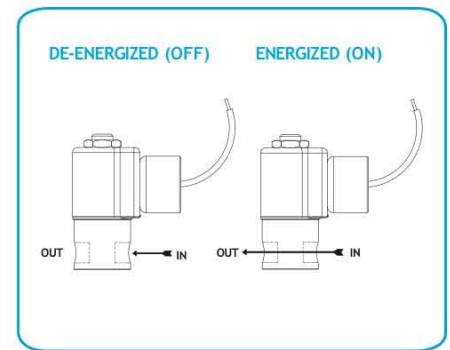
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

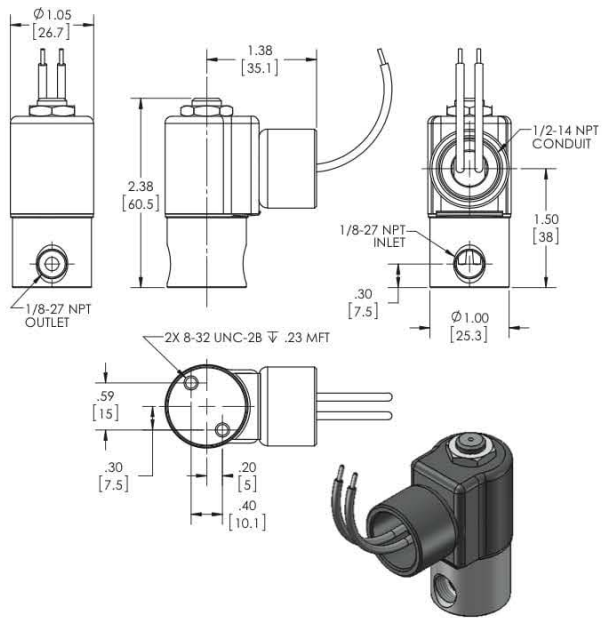
Valve Weight: Grommet Valve: 0.38 lbs, Conduit Valve: 0.44 lbs

Repair Packs: See table on proceeding page.

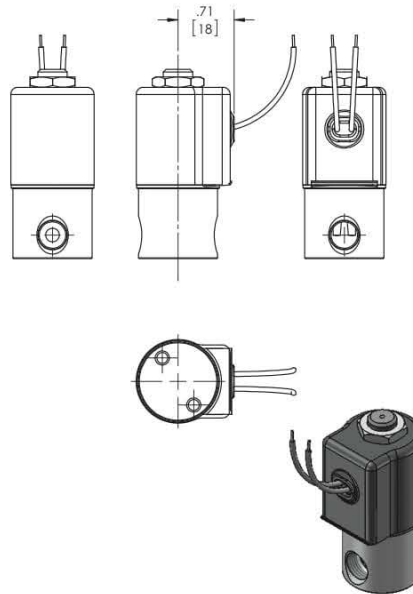
Options: Alternate Port Locations, Metering and Alternate Elastomers*

* Consult representative or factory for options and specifications.





**SERIES 50 LLW
MODEL LLW52
2WNC
CONDUIT CONNECTION**



**SERIES 50 LLW
MODEL LLW52
2WNC
GROMMET HOUSING WITH LEADS**

VALVE SPECIFICATIONS

MAX. OPER.
PRESS. DIFF.

GAS	ORIFICE SIZE	CV FACTOR	VALVE NUMBER	
DC	N.C.	N.C.	GROMMET 1/8 NPT	CONDUIT 1/8 NPT
120	1/32	.022	LLW52G8DGM	LLW52G8DCM

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (LLW52G8DGM 12/DC) REPAIR PACK (KLLW52G DC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (OLLW52G8DGM 12/DC)

LOW LOW WATT VALVES



Note: This valve also available as an operator. Refer to following page.

Series 50 LLW >> Model LLW53

Low, Low Wattage —3-Way Normally Closed Valve — Exhaust to Atmosphere

General purpose valve for pneumatic applications. The versatility of these valves is increased to include the handling of hot air, refrigerants and many other media, by the use of different seals. Air and other gases compatible with standard Buna seals.

- General purpose valve with reduced power consumption.
- Increased versatility.
- For pneumatic application.
- Increased to handle hot air, refrigerants and other gases.

OPERATING CONDITIONS

Media: Air and other gases compatible with standard Buna seals.

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 140°F (60°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 6.0 to 120V DC

Nominal Power: DC — .65 Watts

Coil Construction: Molded and potted Class F. (Class H optional)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.), Brass (Opt.) or Aluminum (Opt.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: 1/8" NPT (Std.)

Housing: Grommet and 1/2" NPT conduit - many options available.*

Listings: Most valves are UL and CSA listed — consult factory.

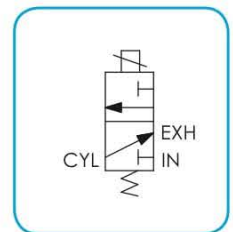
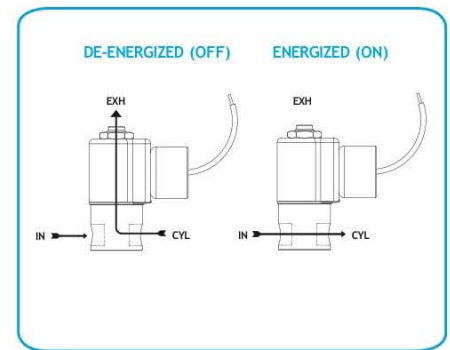
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

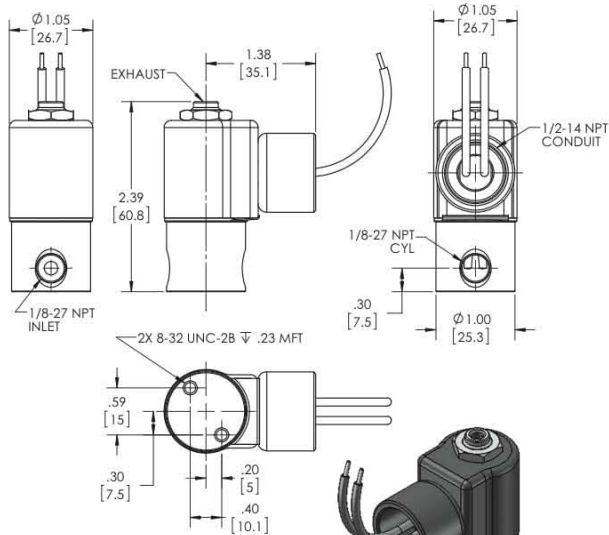
Valve Weight: Grommet Valve: 0.38 lbs, Conduit Valve: 0.44 lbs

Repair Packs: See table on proceeding page.

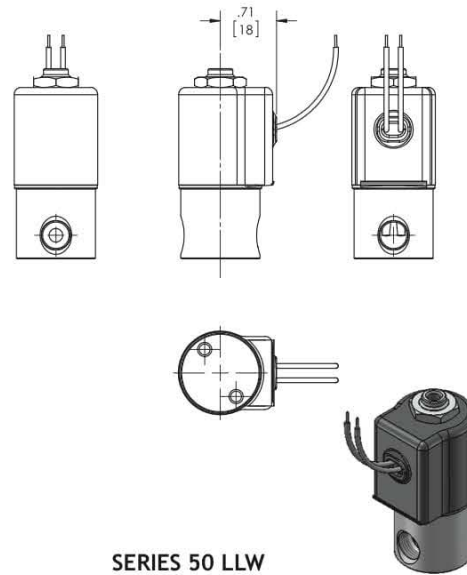
Options: Alternate Port Locations, Metering and Alternate Elastomers*

* Consult representative or factory for options and specifications.





**SERIES 50 LLW
MODEL LLW52
3WNC EXHAUST TO ATMOSPHERE
CONDUIT CONNECTION**



**SERIES 50 LLW
MODEL LLW52
3WNC EXHAUST TO ATMOSPHERE
GROMMET HOUSING WITH LEADS**

VALVE SPECIFICATIONS

MAX. OPER.
PRESS. DIFF.

GAS	ORIFICE SIZE		CV FACTOR		VALVE NUMBER	
	N.C.	N.O.	N.C.	N.O.	GROMMET 1/8 NPT	CONDUIT 1/8 NPT
DC	1/32	1/32	.022	.022	LLW53GG8DGM	LLW53GG8DCM

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (LLW53GG8DGM 12/DC) REPAIR PACK (KLLW53GGD DC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (OLLW53GG8DGM 12/DC)

LOW LOW WATT VALVES



Note: This valve also available as an operator. Refer to following page.

Series 50 LLW >> Model LLW53

Low, Low Wattage —3-Way Normally Closed Piped Exhaust

General purpose valve for pneumatic applications. The versatility of these valves is increased to include the handling of hot air, refrigerants and many other media, by the use of different seals. Air and other gases compatible with standard Buna seals.

- General purpose valve with reduced power consumption.
- Increased versatility.
- For pneumatic application.
- Increased to handle hot air, refrigerants and other gases.

OPERATING CONDITIONS

Media: Air and other gases compatible with standard Buna seals.

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 140°F (60°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 6.0 to 120V DC

Nominal Power: DC — .65 Watts

Coil Construction: Molded and potted Class F. (Class H optional)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.), Brass (Opt.) or Aluminum (Opt.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: 1/8" NPT (Std.)

Housing: Grommet and 1/2" NPT conduit - many options available.*

Listings: Most valves are UL and CSA listed — consult factory.

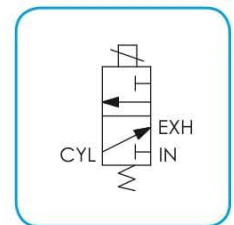
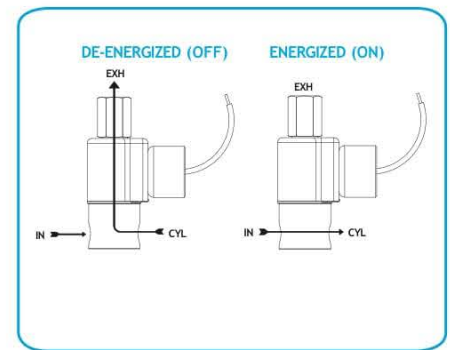
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

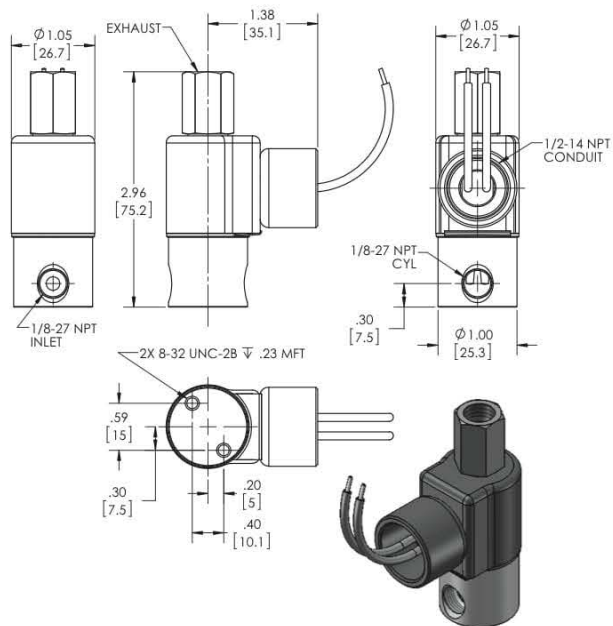
Valve Weight: Grommet Valve: 0.38 lbs, Conduit Valve: 0.44 lbs

Repair Packs: See table on proceeding page.

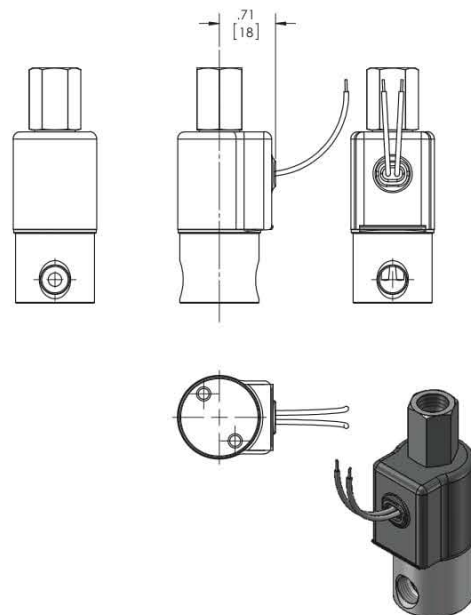
Options: Alternate Port Locations, Metering and Alternate Elastomers*

* Consult representative or factory for options and specifications.





**SERIES 50 LLW
MODEL LLW53
3WNC PIPED EXHAUST
CONDUIT CONNECTION**



**SERIES 50 LLW
MODEL LLW53
3WNC PIPED EXHAUST
GROMMET HOUSING WITH LEADS**

MAX. OPER.
PRESS. DIFF.

GAS
DC

ORIFICE SIZE
N.C. N.O.
1/32 1/32

CV FACTOR
N.C. N.O.
.022 .022

VALVE NUMBER

GROMMET 1/8 NPT CONDUIT 1/8 NPT
LLW53GG8XGM LLW53GG8XCM

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (LLW53GG8XGM 12/DC) REPAIR PACK (KLLW53GGX DC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (OLLW53GG8DGM 12/DC)



Note: This valve also available as an operator. Refer to following page.

Series 50 SLW >> Model SLW51

Encapsulated Super Low Wattage – 2-Way Normally Open Valve

General purpose valves for pneumatic and hydraulic applications. The versatility of these valves is increased to include the handling of hot air, hot water, refrigerants and many other media, by the use of different seals. Air and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, oils, some hydraulic fluids, and many media require special seal materials.

- General purpose valve with reduced power consumption.
- For pneumatic and hydraulic application.
- NEMA 4 rating is standard with encapsulated coil.

OPERATING CONDITIONS

Media: Air and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, oils, some hydraulic fluids, and many media require special seal materials. (Series 50 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 140°F (60°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 12 to 370V AC 60 HZ. and 10.5 to 345V AC 50 HZ. – 3.5 to 120V DC

Nominal Power: AC – 1.8 Watts DC – 1.8 Watts

Coil Construction: Encapsulated Class F Coil with third wire ground

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: 1/8" NPT (Std.)

Housing: Encapsulated with 1/2 NPT conduit

Listings: Listings: Most valves are UL and CSA listed – consult factory.

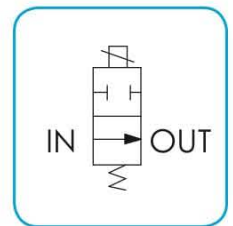
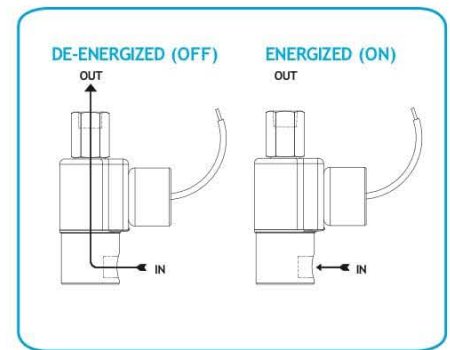
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

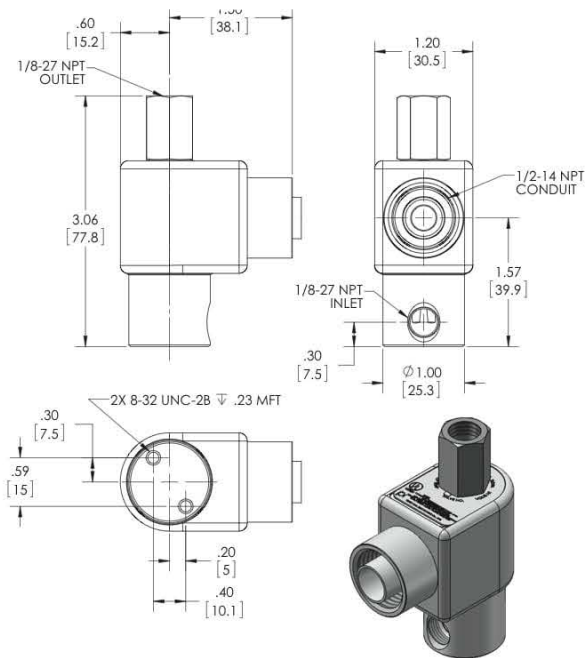
Valve Weight: 0.60 lbs

Repair Packs: See table on proceeding page.

Options: Alternate Port Locations, Metering, Alternate Elastomers, All Stainless Steel Construction*

* Consult representative or factory for options and specifications.





**SERIES 50 SLW
MODEL SLW51
2WNO
LOW WATTAGE**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		MAX. OPER. PRESS. DIFF.		ORIFICE SIZE	CV FACTOR	VALVE NUMBER
GAS		LIQUID				
AC	DC	AC	DC	N.O.	N.O.	
300	200	300	200	1/32	.020	SLW51G8XCCP
270	120	120	65	3/64	.048	SLW51H8XCCP
135	50	40	30	1/16	.075	SLW51J8XCCP
70	35	30	20	5/64	.134	SLW51V8XCCP
55	30	25	15	3/32	.150	SLW51K8XCCP

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (SLW51J8XCCPL 120/60) REPAIR PACK (KSLW51J AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (QSLW51J8DCCPL 120/60)



Note: This valve also available as an operator. Refer to following page.

Series 50 SLW >> Model SLW52

Encapsulated Low Wattage – 2-Way Normally Closed Valve

General purpose or safety valves for pneumatic and hydraulic applications. The versatility of these valves is increased to include the handling of hot air, hot water, refrigerants and many other media, by the use of different seals. Air and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, oils, some hydraulic fluids, and many media require special seal materials.

- General purpose valve with reduced power consumption.
- For pneumatic and hydraulic application.
- NEMA 4 rating is standard with encapsulated coil.

OPERATING CONDITIONS

Media: Air and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, oils, some hydraulic fluids, and many media require special seal materials. (Series 50 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 140°F (60°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 12 to 370V AC 60 HZ. and 10.5 to 345V AC 50 HZ. – 3.5 to 120V DC

Nominal Power: AC – 1.8 Watts DC – 1.8 Watts

Coil Construction: Encapsulated Class F Coil with third wire ground

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: 1/8" NPT (Std.)

Housing: Encapsulated with 1/2 NPT conduit

Listings: Listings: Most valves are UL and CSA listed – consult factory.

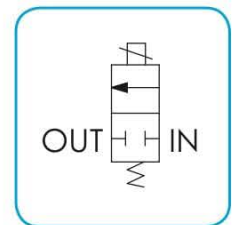
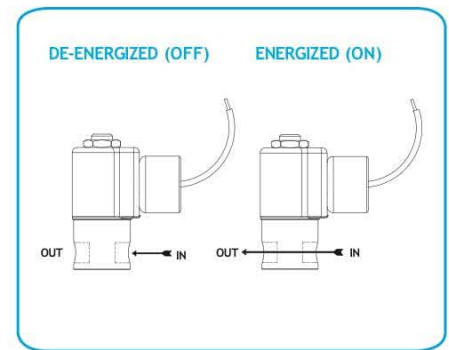
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

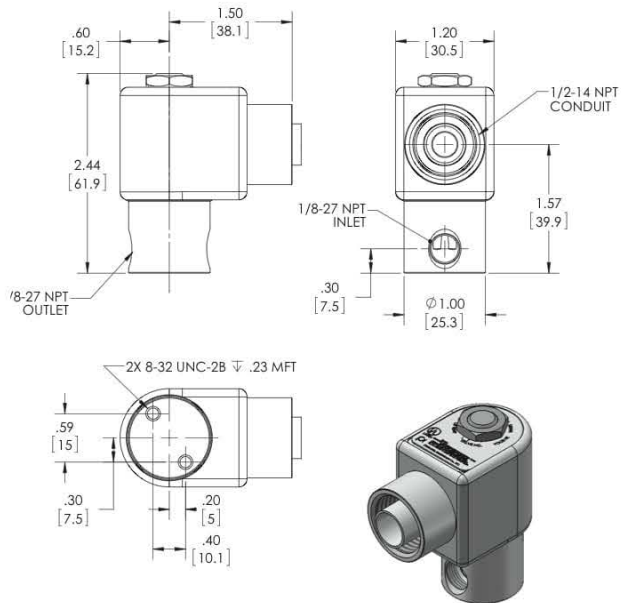
Valve Weight: 0.60 lbs

Repair Packs: See table on proceeding page.

Options: Alternate Port Locations, Metering, Alternate Elastomers, All Stainless Steel Construction*

* Consult representative or factory for options and specifications.





**SERIES 50 SLW
MODEL SLW52
2WNC
LOW WATTAGE**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		MAX. OPER. PRESS. DIFF.		ORIFICE SIZE	CV FACTOR	VALVE NUMBER
GAS	LIQUID	GAS	LIQUID			
AC	DC	AC	DC	N.C.	N.C.	
600*	200	600	200	1/32	.022	SLW52G8DCCP
250	80	250	80	3/64	.055	SLW52H8DCCP
150	50	150	50	1/16	.075	SLW52J8DCCP
100	25	100	25	5/64	.134	SLW52V8DCCP
85	20	85	20	3/32	.156	SLW52K8DCCP
50		50		1/8	.230	SLW52N8DCCP
15		15		5/32	.292	SLW52O8DCCP

* FKM seals not recommended for pressure above 500 psi.

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (SLW52J8DCCP 120/60) REPAIR PACK (KSLW52J AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (QSLW52J8DCCP 120/60)



Note: This valve also available as an operator. Refer to following page.

Series 50 SLW >> Model SLW53

Encapsulated Low Wattage – 3-Way Normally Closed Valve (exhaust to atmosphere)

General purpose valves for pneumatic and hydraulic applications. The versatility of these valves is increased to include the handling of hot air, hot water, refrigerants and many other media, by the use of different seals. Air and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, oils, some hydraulic fluids, and many media require special seal materials.

- General purpose valve with reduced power consumption.
- For pneumatic and hydraulic application.
- NEMA 4 rating is standard with encapsulated coil.

OPERATING CONDITIONS

Media: Air and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, oils, some hydraulic fluids, and many media require special seal materials. (Series 50 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 140°F (60°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 12 to 370V AC 60 HZ. and 10.5 to 345V AC 50 HZ. – 3.5 to 120V DC

Nominal Power: AC – 1.8 Watts DC – 1.8 Watts

Coil Construction: Encapsulated Class F Coil with third wire ground

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: 1/8" NPT (Std.)

Housing: Encapsulated with 1/2 NPT conduit

Listings: Listings: Most valves are UL and CSA listed – consult factory.

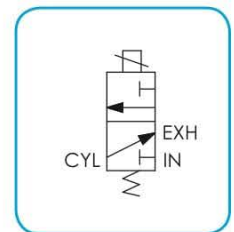
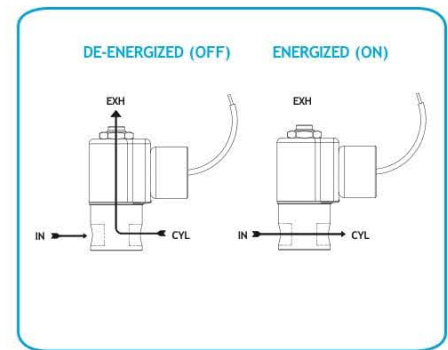
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

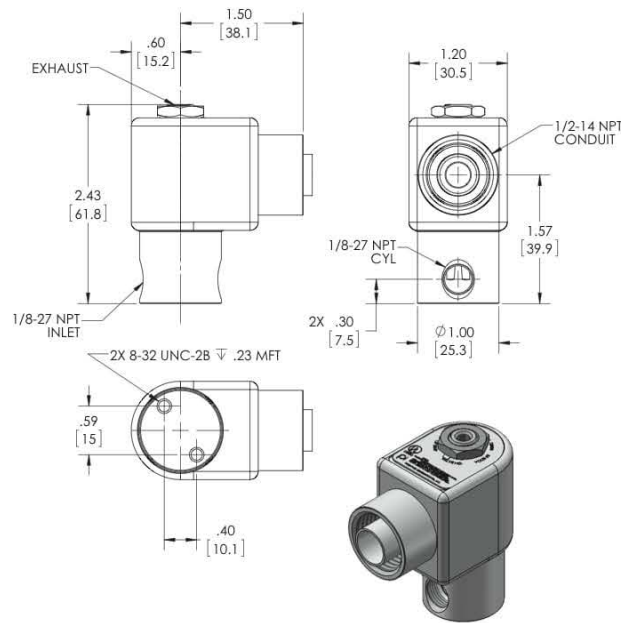
Valve Weight: 0.60 lbs

Repair Packs: See table on proceeding page.

Options: Alternate Port Locations, Metering, Alternate Elastomers, All Stainless Steel Construction*

* Consult representative or factory for options and specifications.





**SERIES 50 SLW
MODEL SLW53
3WNC EXHAUST TO ATMOSPHERE
LOW WATTAGE**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		MAX. OPER. PRESS. DIFF.		ORIFICE SIZE		CV FACTOR		VALVE NUMBER
GAS		LIQUID		N.C.	N.O.	N.C.	N.O.	
AC	DC	AC	DC					
215	135	215	135	1/32	1/32	.022	.020	SLW53GG8DCCP
215	120	120	65	1/32	3/64	.022	.048	SLW53GH8DCCP
135	50	40	30	1/32	1/16	.022	.075	SLW53GJ8DCCP
70	35	30	20	1/32	5/64	.022	.134	SLW53GV8DCCP
55	30	25	15	1/32	3/32	.022	.150	SLW53GK8DCCP
120	70	120	65	3/64	3/64	.055	.048	SLW53HH8DCCP
120	50	40	30	3/64	1/16	.055	.075	SLW53HJ8DCCP
70	35	30	20	3/64	5/64	.055	.134	SLW53HV8DCCP
55	30	25	15	3/64	3/32	.055	.150	SLW53HK8DCCP
85	40	40	30	1/16	1/16	.075	.075	SLW53JJ8DCCP
70	35	30	20	1/16	5/64	.075	.134	SLW53JV8DCCP
55	30	25	15	1/16	3/32	.075	.150	SLW53JK8DCCP
50	30	30	20	5/64	5/64	.134	.134	SLW53VV8DCCP
50	30	25	15	5/64	3/32	.134	.150	SLW53VK8DCCP
35	20	25	15	3/32	3/32	.156	.150	SLW53KK8DCCP

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (SLW53JJ8DCCPL 120/60) REPAIR PACK (KSLW53JJD AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (QSLW53JJ8DCCPL 120/60)



Note: This valve also available as an operator. Refer to following page.

Series 50 SLW >> Model SLW53

Encapsulated Low Wattage – 3-Way Normally Closed Valve (piped exhaust)

General purpose valves for pneumatic and hydraulic applications. The versatility of these valves is increased to include the handling of hot air, hot water, refrigerants and many other media, by the use of different seals. Air and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, oils, some hydraulic fluids, and many media require special seal materials.

- General purpose valve with reduced power consumption.
- For pneumatic and hydraulic application.
- NEMA 4 rating is standard with encapsulated coil.

OPERATING CONDITIONS

Media: Air and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, oils, some hydraulic fluids, and many media require special seal materials. (Series 50 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 140°F (60°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 12 to 370V AC 60 HZ. and 10.5 to 345V AC 50 HZ. – 3.5 to 120V DC

Nominal Power: AC – 1.8 Watts DC – 1.8 Watts

Coil Construction: Encapsulated Class F Coil with third wire ground

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: 1/8" NPT (Std.)

Housing: Encapsulated with 1/2 NPT conduit

Listings: Listings: Most valves are UL and CSA listed – consult factory.

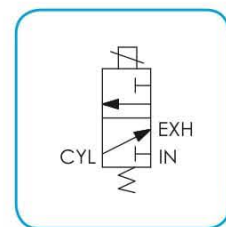
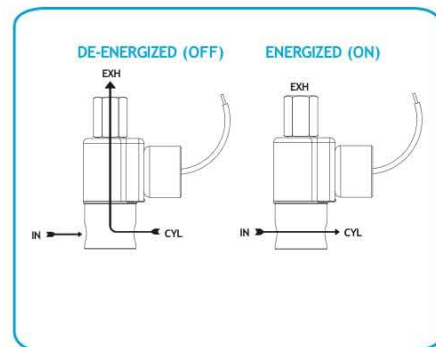
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

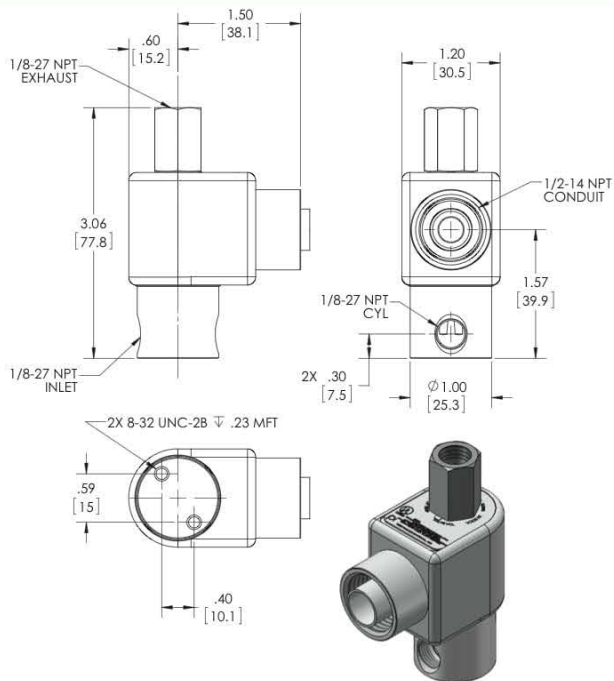
Valve Weight: 0.60 lbs

Repair Packs: See table on proceeding page.

Options: Alternate Port Locations, Metering, Alternate Elastomers, All Stainless Steel Construction*

* Consult representative or factory for options and specifications.





**SERIES 50 SLW
MODEL SLW53
3WNC PIPED EXHAUST
LOW WATTAGE**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF. GAS		LIQUID		ORIFICE SIZE		CV FACTOR		VALVE NUMBER
AC	DC	AC	DC	N.C.	N.O.	N.C.	N.O.	
215	135	215	135	1/32	1/32	.022	.020	SLW53GG8XCCP
215	120	120	65	1/32	3/64	.022	.048	SLW53GH8XCCP
135	50	40	30	1/32	1/16	.022	.075	SLW53GJ8XCCP
70	35	30	20	1/32	5/64	.022	.134	SLW53GV8XCCP
55	30	25	15	1/32	3/32	.022	.150	SLW53GK8XCCP
120	70	120	65	3/64	3/64	.055	.048	SLW53HH8XCCP
120	50	40	30	3/64	1/16	.055	.075	SLW53HJ8XCCP
70	35	30	20	3/64	5/64	.055	.134	SLW53HV8XCCP
55	30	25	15	3/64	3/32	.055	.150	SLW53HK8XCCP
85	40	40	30	1/16	1/16	.075	.075	SLW53JJ8XCCP
70	35	30	20	1/16	5/64	.075	.134	SLW53JV8XCCP
55	30	25	15	1/16	3/32	.075	.150	SLW53JK8XCCP
50	30	30	20	5/64	5/64	.134	.134	SLW53VV8XCCP
50	30	25	15	5/64	3/32	.134	.150	SLW53VK8XCCP
35	20	25	15	3/32	3/32	.156	.150	SLW53KK8XCCP

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (SLW53JJ8XCCPL 120/60) REPAIR PACK (KSLW53JJX AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (O_{SLW53JJ8D}CCPL 120/60)



Note: This valve also available as an operator. Refer to following page.

Series 50 SLLW >> Model SLLW52

Encapsulated Super Low, Low Wattage – 2-Way Normally Closed Valve

General purpose for pneumatic applications. For use on air and common gases, compatible with standard Buna seals. Other media require special seal materials. The SLLW Valve is not a safety valve.

- General purpose valve with reduced power consumption.
- For pneumatic and hydraulic application.
- NEMA 4 rating is standard with encapsulated coil.

OPERATING CONDITIONS

Media: Air and other common gases only.*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 140°F (60°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 1.9 to 63V DC

Nominal Power: DC – .50 Watts

Coil Construction: Encapsulated Class F Coil with third wire ground

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: 1/8" NPT (Std.)

Housing: Encapsulated with 1/2 NPT conduit

Listings: Most valves are UL and CSA listed – consult factory.

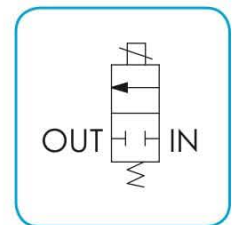
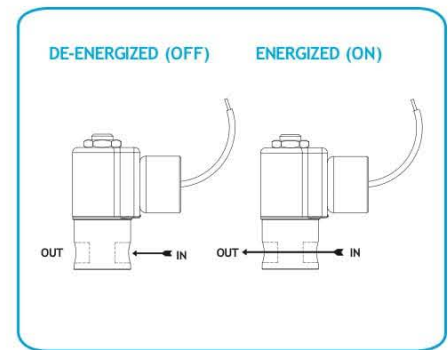
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

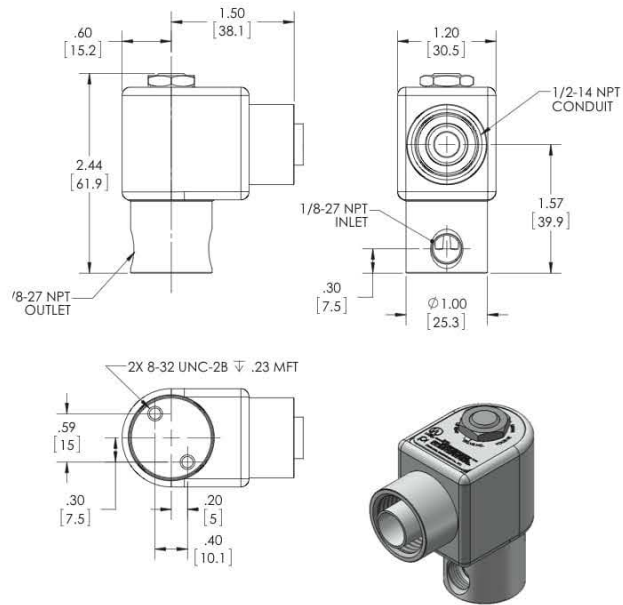
Valve Weight: 0.60 lbs

Repair Packs: See table on proceeding page.

Options: Alternate Port Locations, Metering, Alternate Elastomers, All Stainless Steel Construction*

* Consult representative or factory for options and specifications.





**SERIES 50 SLLW
MODEL SLLW52
2WNC
LOW WATTAGE**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF. DC GAS ONLY	ORIFICE SIZE N.C.	CV FACTOR N.C.	VALVE NUMBER
120	1/32	.022	SLLW52G8DCCP

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (SLLW52G8DCCP 12/DC) REPAIR PACK (KSLLW52G DC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (QSLLW52G8DCCP-12/DC)



Note: This valve also available as an operator. Refer to following page.

Series 50 SLLW >> Model SLLW53

Encapsulated Super Low, Low Wattage – 3-Way Normally Closed Valve – Exhaust to Atmosphere

General purpose for pneumatic applications. For use on air and common gases, compatible with standard Buna seals. Other media require special seal materials. The SLLW Valve is not a safety valve.

- General purpose valve with reduced power consumption.
- For pneumatic and hydraulic application.
- NEMA 4 rating is standard with encapsulated coil.

OPERATING CONDITIONS

Media: Air and other common gases only.*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 140°F (60°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 1.9 to 63V DC

Nominal Power: DC – .50 Watts

Coil Construction: Encapsulated Class F Coil with third wire ground

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: 1/8" NPT (Std.)

Housing: Encapsulated with 1/2 NPT conduit

Listings: Most valves are UL and CSA listed – consult factory.

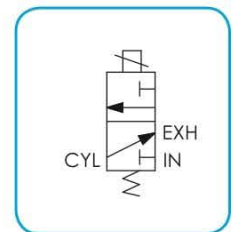
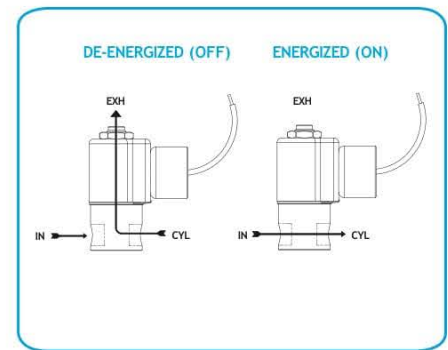
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

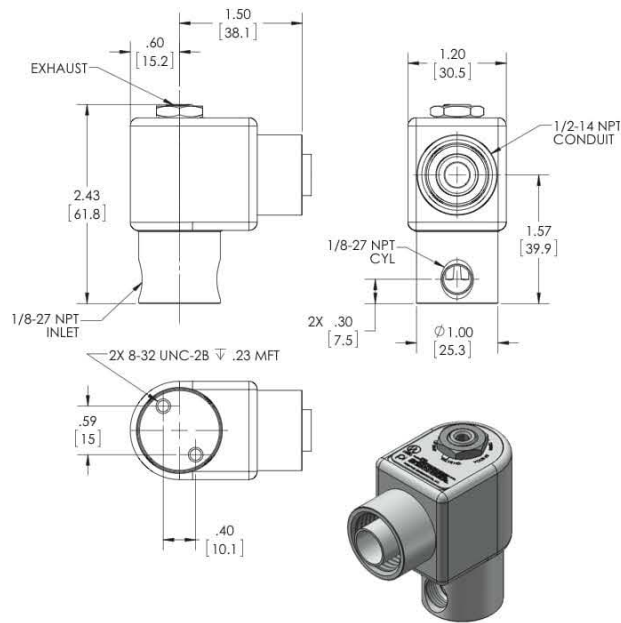
Valve Weight: 0.60 lbs

Repair Packs: See table on proceeding page.

Options: Alternate Port Locations, Metering, Alternate Elastomers, All Stainless Steel Construction*

* Consult representative or factory for options and specifications.





**SERIES 50 SLLW
MODEL SLLW53
3WNC EXHAUST TO ATMOSPHERE
LOW WATTAGE**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF. DC GAS ONLY	ORIFICE SIZE		CV FACTOR		VALVE NUMBER
	N.C.	N.O.	N.C.	N.O.	
120	1/32	1/32	.022	.020	SLLW53GG8DCCP

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (SLLW53GGDCCP 12/DC) REPAIR PACK (KSLLW53GGD DC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (OSLLW53GGDCCP 12/DC)



Note: This valve also available as an operator. Refer to following page.

Series 50 SLLW >> Model SLLW53

Encapsulated Super Low, Low Wattage – 3-Way Normally Closed Valve – Piped Exhaust

General purpose for pneumatic applications. For use on air and common gases, compatible with standard Buna seals. Other media require special seal materials. The SLLW Valve is not a safety valve.

- General purpose valve with reduced power consumption.
- For pneumatic and hydraulic application.
- NEMA 4 rating is standard with encapsulated coil.

OPERATING CONDITIONS

Media: Air and other common gases only.*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 140°F (60°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 1.9 to 63V DC

Nominal Power: DC – .50 Watts

Coil Construction: Encapsulated Class F Coil with third wire ground

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

Duty Cycle: Continuous

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: 1/8" NPT (Std.)

Housing: Encapsulated with 1/2 NPT conduit

Listings: Most valves are UL and CSA listed – consult factory.

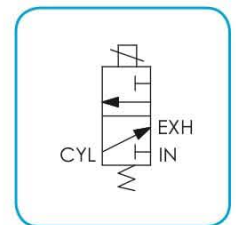
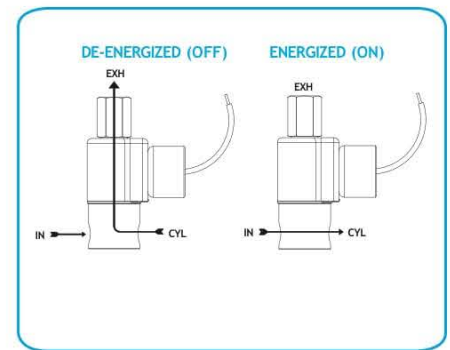
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

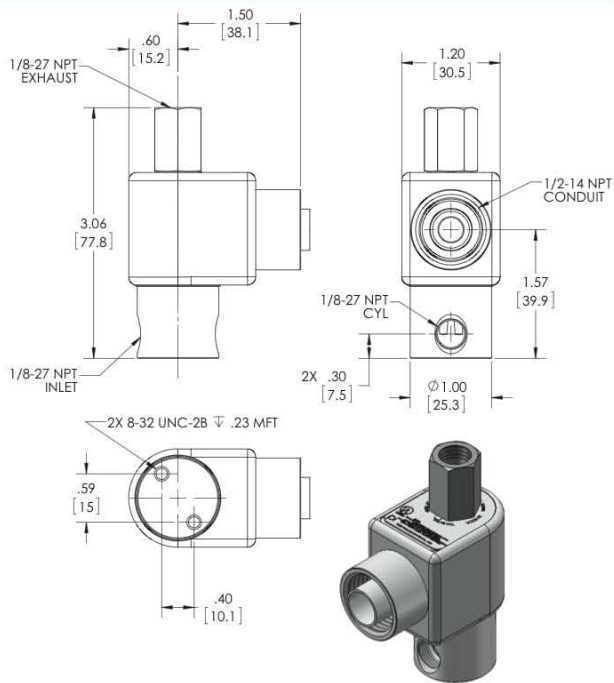
Valve Weight: 0.60 lbs

Repair Packs: See table on proceeding page.

Options: Alternate Port Locations, Metering, Alternate Elastomers, All Stainless Steel Construction*

* Consult representative or factory for options and specifications.





**SERIES 50 SLLW
MODEL SLLW53
3WNC PIPED EXHAUST
LOW WATTAGE**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF. DC GAS ONLY	ORIFICE SIZE		CV FACTOR		VALVE NUMBER
	N.C.	N.O.	N.C.	N.O.	
120	1/32	1/32	.022	.020	SLLW53GG8XCCP

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (SLLW53GGDCCP 12/DC) REPAIR PACK (KSLLW53GGD DC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (OSLLW53GGDCCP 12/DC)

MAGNET LATCHING VALVES



Note: This valve also available as an operator. Refer to following page.

Series 15 >> Model 152

2-Way Normally Closed Magnet Latching Valve

This type of valve is often used in remote areas where continuous power may not be available or with battery-powered portable equipment where power capacity is limited. It is also valuable in equipment where coil heating, due to continuous application of power, is undesirable. Air and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, oils, some hydraulic fluids, and many other media require special seal materials.

- **Small, lightweight and economical.**
- **Operating pressures from vacuum to 500 psi.**
- **Quality design and construction.**

OPERATING CONDITIONS

Media: Air, water, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, and many oils require special seal materials. (Series 15 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5,000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 3.0 to 180V DC

Nominal Power: DC – 10.5 Watts

Coil Construction: Molded Class F. (155°C)

Typical Response Time on Air: Approximate 30 milliseconds pulse to energize and de-energize.

Operating Speed: Up to 600 CPM

MECHANICAL CHARACTERISTICS

Body: Anodized Aluminum (Std.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: 1/8" NPT (Std.)

Housing: Leadwires and DIN Style Connector.

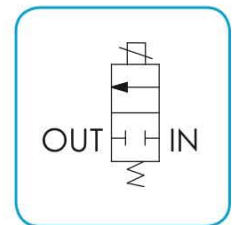
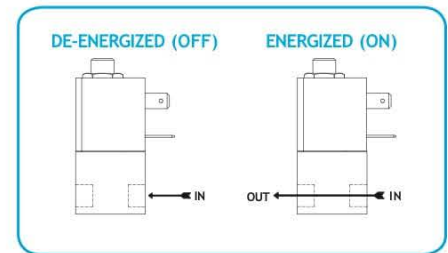
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

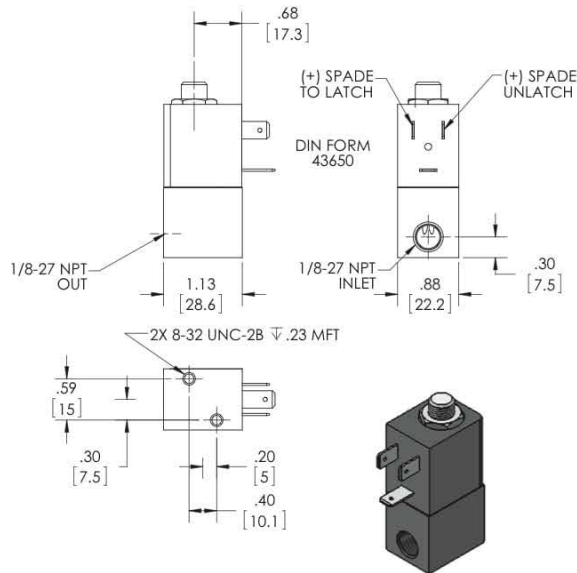
Valve Weight: 0.27 lb to 0.30 lb depending on model and housing style.

Repair Packs: See table on proceeding page.

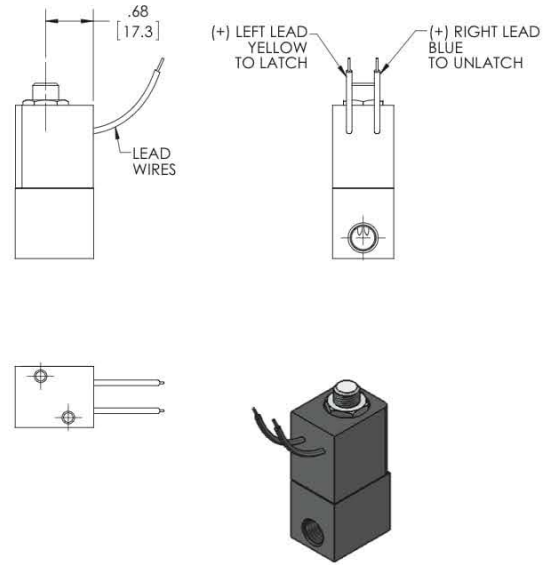
Options: Round Brass or Stainless Steel Body, Stackable Construction and Alternate Elastomers.

* Consult representative or factory for options and specifications.





**SERIES 15
MODEL 152
2WNC
DIN STYLE
MAGNETIC LATCHING**



**SERIES 15
MODEL 152
2WNC
MOLDED WITH LEADS
MAGNETIC LATCHING**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.	ORIFICE SIZE	CV FACTOR	VALVE NUMBER	
			LEAD WIRE	DIN STYLE
500	1/32	.022	152G2DGLM	152G2DELM
250	3/64	.055	152H2DGLM	152H2DELM
160	1/16	.075	152J2DGLM	152J2DELM
75	3/32	.130	152K2DGLM	152K2DELM
50	1/8	.230	152N2DGLM	152N2DELM

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (152J2DGLM 12/DC) REPAIR PACK (K152JDLM DC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (O152J2DGLM 12/DC)

MAGNET LATCHING VALVES



Note: This valve also available as an operator. Refer to following page.

Series 15 >> Model 153

3-Way Normally Closed Magnet Latching Valve — Exhaust to Atmosphere

This type of valve is often used in remote areas where continuous power may not be available or with battery-powered portable equipment where power capacity is limited. It is also valuable in equipment where coil heating, due to continuous application of power, is undesirable. Air and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, oils, some hydraulic fluids, and many other media require special seal materials.

- **Small, lightweight and economical.**
- **Operating pressures from vacuum to 150 psi.**
- **Quality design and construction.**

OPERATING CONDITIONS

Media: Air, water, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, and many oils require special seal materials. (Series 15 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5,000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 3.0 to 180V DC

Nominal Power: DC — 10.5 Watts

Coil Construction: Molded Class F. (155°C)

Typical Response Time on Air: Approximate 30 milliseconds pulse to energize and de-energize.

Operating Speed: Up to 600 CPM

MECHANICAL CHARACTERISTICS

Body: Anodized Aluminum (Std.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: 1/8" NPT (Std.)

Housing: Leadwires and DIN Style Connector.

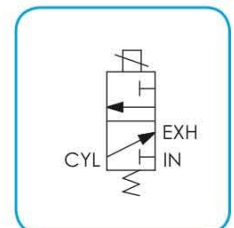
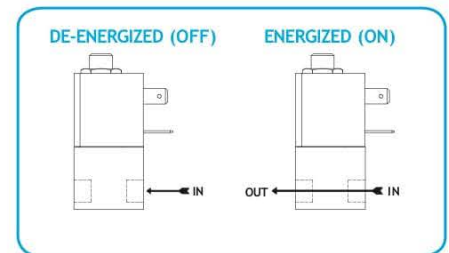
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

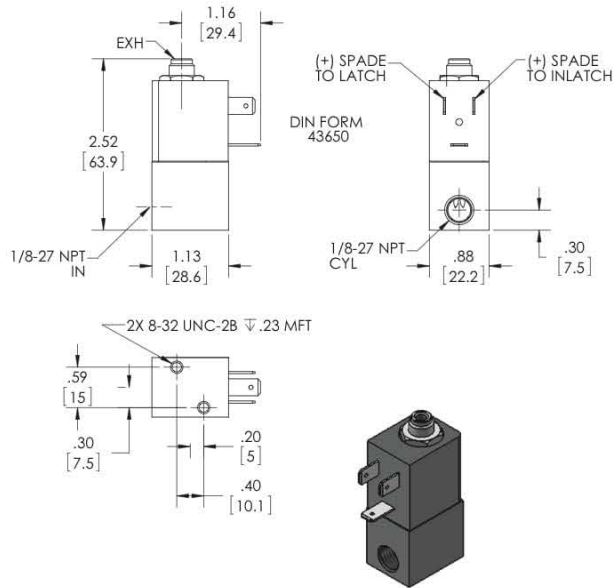
Valve Weight: 0.27 lb to 0.30 lb depending on model and housing style.

Repair Packs: See table on proceeding page.

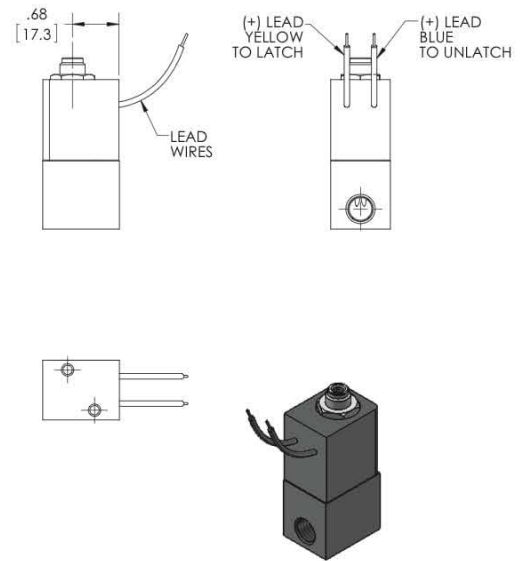
Options: Round Brass or Stainless Steel Body, Stackable Construction and Alternate Elastomers.

* Consult representative or factory for options and specifications.





**SERIES 15
MODEL 153
3WNC EXHAUST TO ATMOSPHERE
DIN STYLE
MAGNETIC LATCHING**



**SERIES 15
MODEL 153
3WNC EXHAUST TO ATMOSPHERE
MOLDED WITH LEADS
MAGNETIC LATCHING**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.	ORIFICE SIZE		CV FACTOR		LEAD WIRE	VALVE NUMBER
	DC	N.C.	N.O.	N.C.		
150	1/32	1/32	.022	.020	153GG2DGLM	153GG2DELM
75	3/64	3/64	.055	.048	153HH2DGLM	153HH2DELM
55	1/16	1/16	.075	.075	153JJ2DGLM	153JJ2DELM
25	3/32	3/32	.130	.130	153KK2DGLM	153KK2DELM

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (153JJ2DGLM 12/DC) REPAIR PACK (K153JDLM DC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (O153J2DGLM 12/DC)

MAGNET LATCHING VALVES



Note: This valve also available as an operator. Refer to following page.

Series 15 >> Model 153

3-Way Normally Closed Magnet Latching Valve – Piped Exhaust

This type of valve is often used in remote areas where continuous power may not be available or with battery-powered portable equipment where power capacity is limited. It is also valuable in equipment where coil heating, due to continuous application of power, is undesirable. Air and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, oils, some hydraulic fluids, and many other media require special seal materials.

- **Small, lightweight and economical.**
- **Operating pressures from vacuum to 150 psi.**
- **Quality design and construction.**

OPERATING CONDITIONS

Media: Air, water, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, and many oils require special seal materials. (Series 15 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5,000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 3.0 to 180V DC

Nominal Power: DC – 10.5 Watts

Coil Construction: Molded Class F. (155°C)

Typical Response Time on Air: Approximate 30 milliseconds pulse to energize and de-energize.

Operating Speed: Up to 600 CPM

MECHANICAL CHARACTERISTICS

Body: Anodized Aluminum (Std.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: 1/8" NPT (Std.)

Housing: Leadwires and DIN Style Connector.

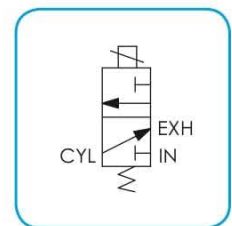
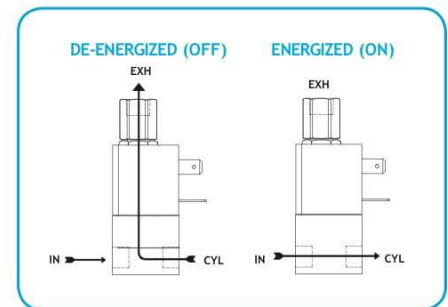
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

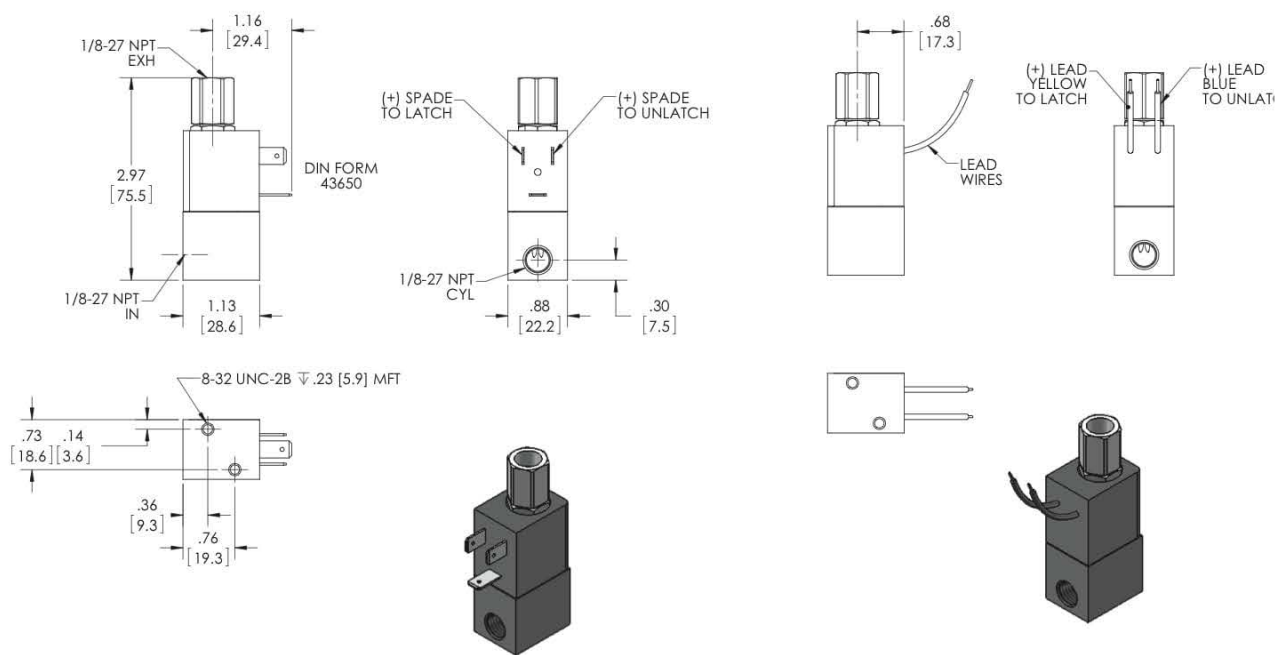
Valve Weight: 0.27 lb to 0.30 lb depending on model and housing style.

Repair Packs: See table on proceeding page.

Options: Round Brass or Stainless Steel Body, Stackable Construction and Alternate Elastomers.

* Consult representative or factory for options and specifications.





**SERIES 15
MODEL 153
3WNC PIPED EXHAUST
DIN STYLE
MAGNETIC LATCHING**

**SERIES 15
MODEL 153
3WNC PIPED EXHAUST
MOLDED WITH LEADS
MAGNETIC LATCHING**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.	ORIFICE SIZE		CV FACTOR		VALVE NUMBER	
	DC	N.C.	N.O.	N.C.	N.O.	LEAD WIRE
150	1/32	1/32	.022	.020	153GG2XGLM	153GG2XELM
75	3/64	3/64	.055	.048	153HH2XGLM	153HH2XELM
55	1/16	1/16	.075	.075	153JJ2XGLM	153JJ2XELM
25	3/32	3/32	.130	.130	153KK2XGLM	153KK2XELM

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (153JJ2XELM 12/DC) REPAIR PACK (K153JXLM DC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (O153JJ2DEL 12/DC)

MAGNET LATCHING VALVES



Note: This valve also available as an operator. Refer to following page.

Series 20 >> Model 21

2-Way Normally Open Magnet Latching Valve

This type of valve is often used in remote areas where continuous power may not be available or with battery-powered portable equipment where power capacity is limited. It is also valuable in equipment where coil heating, due to continuous application of power, is undesirable. Air and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, oils, some hydraulic fluids, and many other media require special seal materials.

- Meets today's demand for economy of space.
- Uses power only during latching and un-latching.
- Great for medical and chemical analyzers.

OPERATING CONDITIONS

Media: Air, water, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, and many oils require special seal materials. (Series 20 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 6 to 60V DC

Nominal Power: DC – 10.0 Watts

Coil Construction: Molded coil with DIN 43650 Form A Connector (Std.), Leadwires (Opt.) For your convenience we have the female DIN style mating connector No. 20-198** available for an additional fee.*

Typical Response Time on Air: Approximate 30 millisecond pulse to energize and de-energize.

Operating Speed: Up to 600 CPM

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.) or Brass (Opt.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: Standard 1/8" and 1/4" NPT (other ports available).*

Housing: Leadwires and DIN Style Connector.

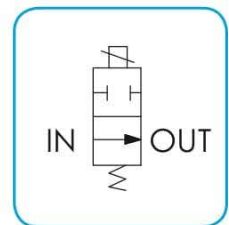
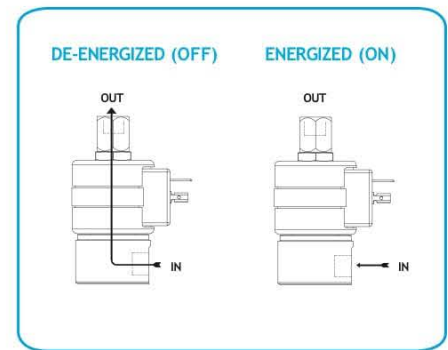
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

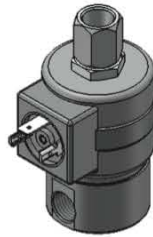
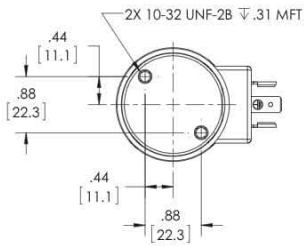
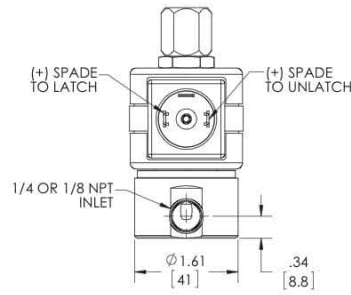
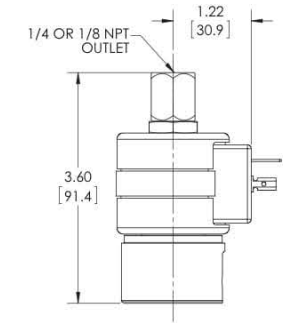
Valve Weight: 1.2 lb average

Repair Packs: See table on proceeding page.

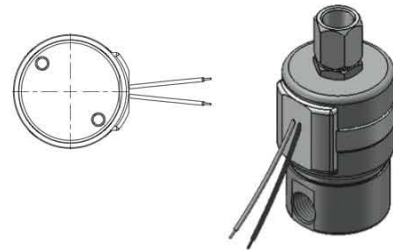
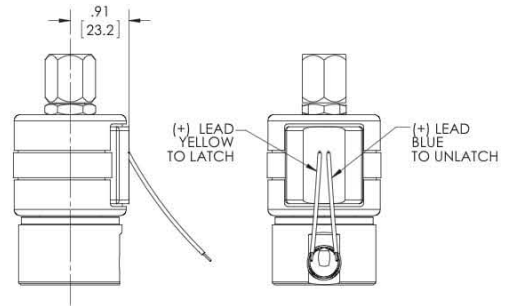
Options: Alternate Port Locations, Metering and Alternate Elastomers.*

* Consult representative or factory for options and specifications.





**SERIES 20
MODEL 21
2WNO
DIN COIL
MAGNETIC LATCHING**



**SERIES 20
MODEL 21
2WNO
COIL WITH LEADS
MAGNETIC LATCHING**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.	ORIFICE SIZE	CV FACTOR	VALVE NUMBER			
			DIN COIL	LEADED COIL		
DC	N.O.	N.O.	1/8 NPT PORTS	1/4 NPT PORTS	1/8 NPT PORTS	1/4 NPT PORTS
400	1/32	.024	21G7XELM	21G9ZELM	21G7XGLM	21G9ZGLM
235	3/64	.053	21H7XELM	21H9ZELM	21H7XGLM	21H9ZGLM
150	1/16	.095	21J7XELM	21J9ZELM	21J7XGLM	21J9ZGLM
100	3/32	.156	21K7XELM	21K9ZELM	21K7XGLM	21K9ZGLM

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (21J7XELM 12/DC) REPAIR PACK (K21JXL DC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (O21J7DEL 12/DC)

MAGNET LATCHING VALVES



Note: This valve also available as an operator. Refer to following page.

Series 20 >> Model 22

2-Way Normally Closed Magnet Latching Valve

This type of valve is often used in remote areas where continuous power may not be available or with battery-powered portable equipment where power capacity is limited. It is also valuable in equipment where coil heating, due to continuous application of power, is undesirable. Air and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, oils, some hydraulic fluids, and many other media require special seal materials.

- Meets today's demand for economy of space.
- Uses power only during latching and un-latching.
- Great for medical and chemical analyzers.

OPERATING CONDITIONS

Media: Air, water, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, and many oils require special seal materials. (Series 20 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 6 to 60V DC

Nominal Power: DC – 10.0 Watts

Coil Construction: Molded coil with DIN 43650 Form A Connector (Std.), Leadwires (Opt.) For your convenience we have the female DIN style mating connector No. 20-198** available for an additional fee.*

Typical Response Time on Air: Approximate 30 millisecond pulse to energize and de-energize.

Operating Speed: Up to 600 CPM

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.) or Brass (Opt.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: Standard 1/8" and 1/4" NPT (other ports available).*

Housing: Leadwires and DIN Style Connector.

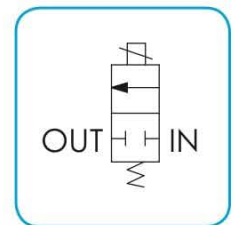
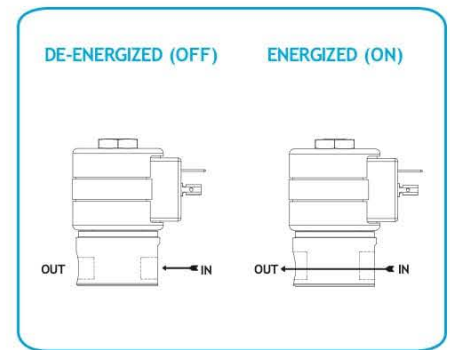
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

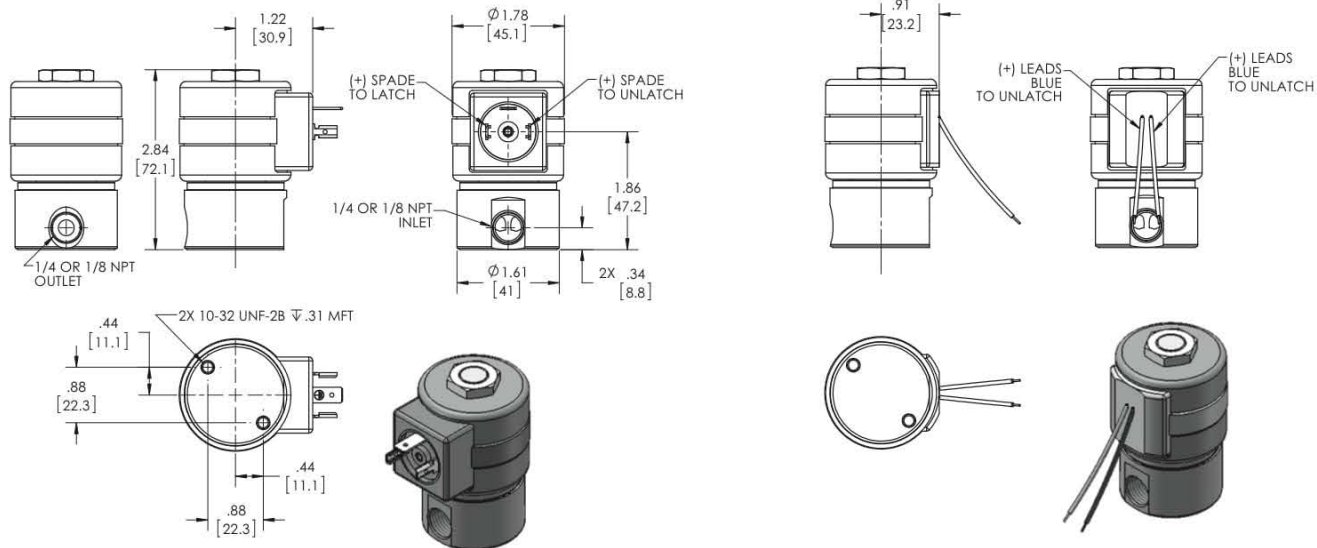
Valve Weight: 1.2 lb average

Repair Packs: See table on proceeding page.

Options: Alternate Port Locations, Metering and Alternate Elastomers.*

* Consult representative or factory for options and specifications.





**SERIES 20
MODEL 22
2WNC
DIN COIL
MAGNETIC LATCHING**

**SERIES 20
MODEL 22
2WNC
COIL WITH LEADS
MAGNETIC LATCHING**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.	ORIFICE SIZE	CV FACTOR	VALVE NUMBER			
			DIN COIL 1/8 NPT PORTS	1/4 NPT PORTS	LEADED COIL 1/8 NPT PORTS	1/4 NPT PORTS
500	1/32	.024	22G7DELM	22G9DELM	22G7DGLM	22G9DGLM
235	3/64	.052	22H7DELM	22H9DELM	22H7DGLM	22H9DGLM
200	1/16	.095	22J7DELM	22J9DELM	22J7DGLM	22J9DGLM
125	3/32	.156	22K7DELM	22K9DELM	22K7DGLM	22K9DGLM
100	1/8	.214	22N7DELM	22N9DELM	22N7DGLM	22N9DGLM
50	5/32	.404	22O7DELM	22O9DELM	22O7DGLM	22O9DGLM
25	3/16	.500	22P7DELM	22P9DELM	22P7DGLM	22P9DGLM
5	1/4	.700	22R7DELM	22R9DELM	22R7DGLM	22R9DGLM

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (22J7DELM 12/DC) REPAIR PACK (K22NDL DC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (O22J7DELM 12/DC)

MAGNET LATCHING VALVES



Note: This valve also available as an operator. Refer to following page.

Series 20 >> Model 23

3-Way Normally Closed Magnet Latching Valve – Exhaust to Atmosphere

This type of valve is often used in remote areas where continuous power may not be available or with battery-powered portable equipment where power capacity is limited. It is also valuable in equipment where coil heating, due to continuous application of power, is undesirable. Air and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, oils, some hydraulic fluids, and many other media require special seal materials.

- Meets today's demand for economy of space.
- Uses power only during latching and un-latching.
- Great for medical and chemical analyzers.

OPERATING CONDITIONS

Media: Air, water, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, and many oils require special seal materials. (Series 20 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 6 to 60V DC

Nominal Power: DC – 10.0 Watts

Coil Construction: Molded Class B with DIN 43650 Form A Connector (Std.), Leadwires (Opt.) For your convenience we have the female DIN style mating connector No. 20-198** available for an additional fee.*

Typical Response Time on Air: Approximate 30 millisecond pulse to energize and de-energize.

Operating Speed: Up to 600 CPM

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.) or Brass (Opt.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: Standard 1/8" and 1/4" NPT (other ports available).*

Housing: Leadwires and DIN Style Connector.

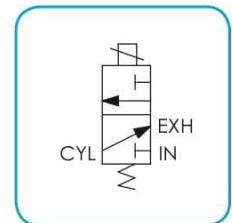
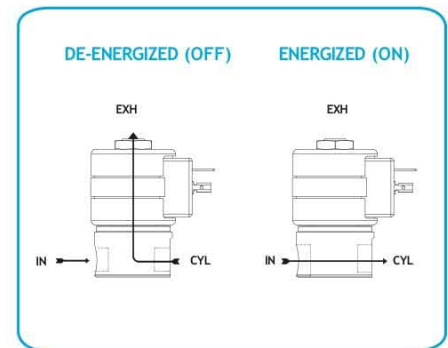
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

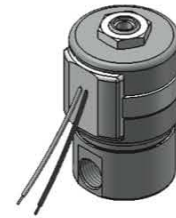
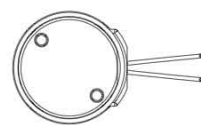
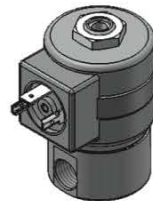
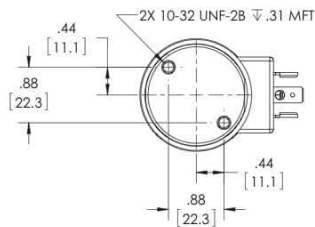
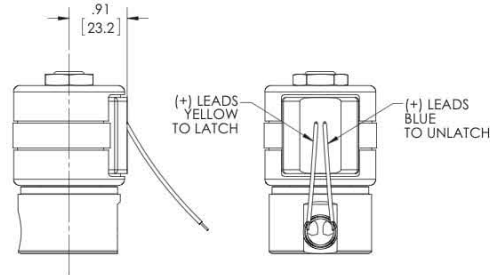
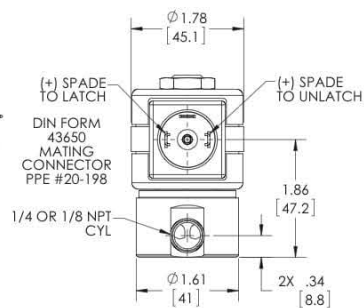
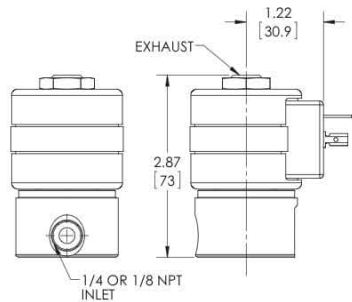
Valve Weight: 1.2 lb average

Repair Packs: See table on proceeding page.

Options: Alternate Port Locations, Metering and Alternate Elastomers.*

* Consult representative or factory for options and specifications.





**SERIES 20
MODEL 23
3WNC EXHAUST TO ATMOSPHERE
DIN COIL
MAGNETIC LATCHING**

**SERIES 20
MODEL 23
3WNC EXHAUST TO ATMOSPHERE
COIL WITH LEADS
MAGNETIC LATCHING**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.		ORIFICE SIZE		CV FACTOR		VALVE NUMBER			
DC	N.C.	N.O.	N.C.	N.O.	DIN COIL 1/8 NPT PORTS	1/4 NPT PORTS	LEADED COIL 1/8 NPT PORTS	1/4 NPT PORTS	
400	1/32	1/32	.024	.024	23GG7DELM	23GG9DELM	23GG7DGLM	23GG9DGLM	
150	3/64	1/16	.052	.095	23HJ7DELM	23HJ9DELM	23HJ7DGLM	23HJ9DGLM	
100	1/16	1/16	.095	.095	23JJ7DELM	23JJ9DELM	23JJ7DGLM	23JJ9DGLM	
100	1/16	3/32	.095	.156	23JK7DELM	23JK9DELM	23JK7DGLM	23JK9DGLM	
75	3/32	3/32	.156	.156	23KK7DELM	23KK9DELM	23KK7DGLM	23KK9DGLM	
50	1/8	3/32	.214	.156	23NK7DELM	23NK9DELM	23NK7DGLM	23NK9DGLM	
20	3/16	3/32	.500	.156	23PK7DELM	23PK9DELM	23PK7DGLM	23PK9DGLM	

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (23JJ7DELM 12/DC) REPAIR PACK (K23JJDL DC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (O23JJ7DELM 12/DC)

MAGNET LATCHING VALVES



Note: This valve also available as an operator. Refer to following page.

Series 20 >> Model 23

3-Way Normally Closed Magnet Latching Valve – Piped Exhaust

This type of valve is often used in remote areas where continuous power may not be available or with battery-powered portable equipment where power capacity is limited. It is also valuable in equipment where coil heating, due to continuous application of power, is undesirable. Air and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, oils, some hydraulic fluids, and many other media require special seal materials.

- Meets today's demand for economy of space.
- Uses power only during latching and un-latching.
- Great for medical and chemical analyzers.

OPERATING CONDITIONS

Media: Air, water, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, and many oils require special seal materials. (Series 20 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 6 to 60V DC

Nominal Power: DC – 10.0 Watts

Coil Construction: Molded coil with DIN 43650 Form A Connector (Std.), Leadwires (Opt.) For your convenience we have the female DIN style mating connector No. 20-198** available for an additional fee.*

Typical Response Time on Air: Approximate 30 millisecond pulse to energize and de-energize.

Operating Speed: Up to 600 CPM

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.) or Brass (Opt.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: Standard 1/8" and 1/4" NPT (other ports available).*

Housing: Leadwires and DIN Style Connector.

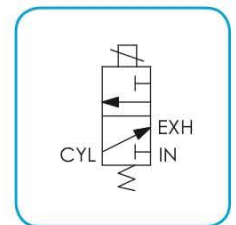
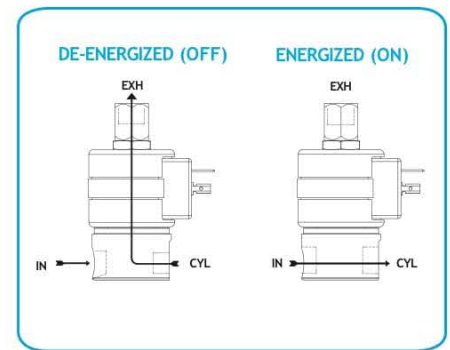
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

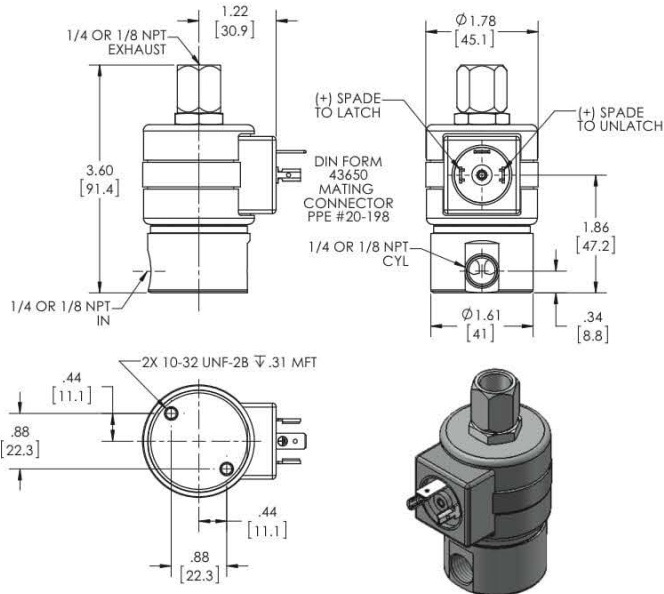
Valve Weight: 1.2 lb average

Repair Packs: See table on proceeding page.

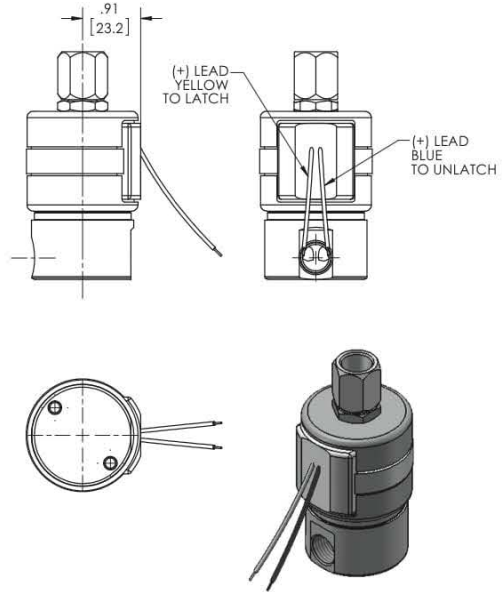
Options: Alternate Port Locations, Metering and Alternate Elastomers.*

* Consult representative or factory for options and specifications.





**SERIES 20
MODEL 23
3WNC PIPED EXHAUST
DIN COIL
MAGNETIC LATCHING**



**SERIES 20
MODEL 23
3WNC PIPED EXHAUST
COIL WITH LEADS
MAGNETIC LATCHING**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.	ORIFICE SIZE		CV FACTOR		VALVE NUMBER				
	DC	N.C.	N.O.	N.C.	N.O.	DIN COIL 1/8 NPT PORTS	LEADED COIL 1/8 NPT PORTS	1/4 NPT PORTS	1/4 NPT PORTS
400	1/32	1/32	.024	.024	.024	23GG7XELM	23GG9ZELM	23GG7XGLM	23GG9ZGLM
150	3/64	1/16	.052	.095	.095	23HJ7XELM	23HJ9ZELM	23HJ7XGLM	23HJ9ZGLM
100	1/16	1/16	.095	.095	.156	23JJ7XELM	23JJ9ZELM	23JJ7XGLM	23JJ9ZGLM
100	1/16	3/32	.095	.156	.156	23JK7XELM	23JK9ZELM	23JK7XGLM	23JK9ZGLM
75	3/32	3/32	.156	.156	.156	23KK7XELM	23KK9ZELM	23KK7XGLM	23KK9ZGLM
50	1/8	3/32	.214	.156	.156	23NK7XELM	23NK9ZELM	23NK7XGLM	23NK9ZGLM
20	3/16	3/32	.500	.156	.156	23PK7XELM	23PK9ZELM	23PK7XGLM	23PK9ZGLM

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (23JJ7XELM 12/DC) REPAIR PACK (K23JJXL DC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (O23JJ7DEL 12/DC)

MAGNET LATCHING VALVES



Note: This valve also available as an operator. Refer to following page.

Series 20 >> Model 24

3-Way Normally Open Magnet Latching Valve

This type of valve is often used in remote areas where continuous power may not be available or with battery-powered portable equipment where power capacity is limited. It is also valuable in equipment where coil heating, due to continuous application of power, is undesirable. Air and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, oils, some hydraulic fluids, and many other media require special seal materials.

- Meets today's demand for economy of space.
- Uses power only during latching and un-latching.
- Great for medical and chemical analyzers.

OPERATING CONDITIONS

Media: Air, water, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, and many oils require special seal materials. (Series 20 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 6 to 60V DC

Nominal Power: DC – 10.0 Watts

Coil Construction: Molded coil with DIN 43650 Form A Connector (Std.), Leadwires (Opt.) For your convenience we have the female DIN style mating connector No. 20-198** available for an additional fee.*

Typical Response Time on Air: Approximate 30 millisecond pulse to energize and de-energize.

Operating Speed: Up to 600 CPM

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.) or Brass (Opt.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: Standard 1/8" and 1/4" NPT (other ports available).*

Housing: Leadwires and DIN Style Connector.

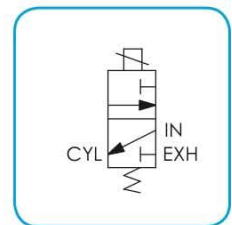
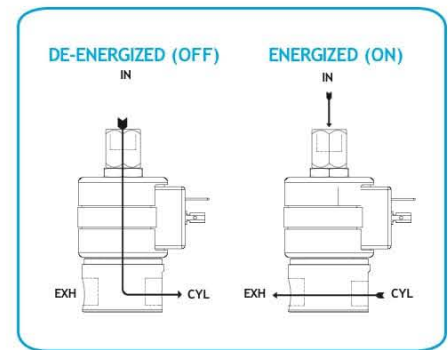
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

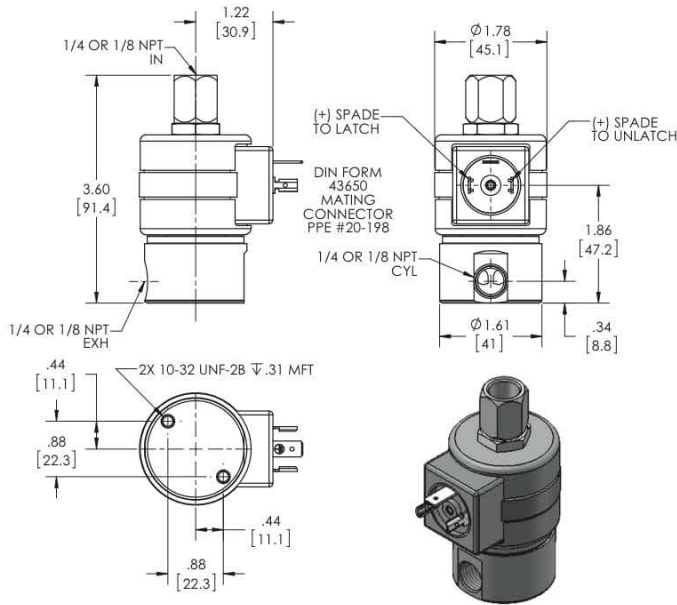
Valve Weight: 1.2 lb average

Repair Packs: See table on proceeding page.

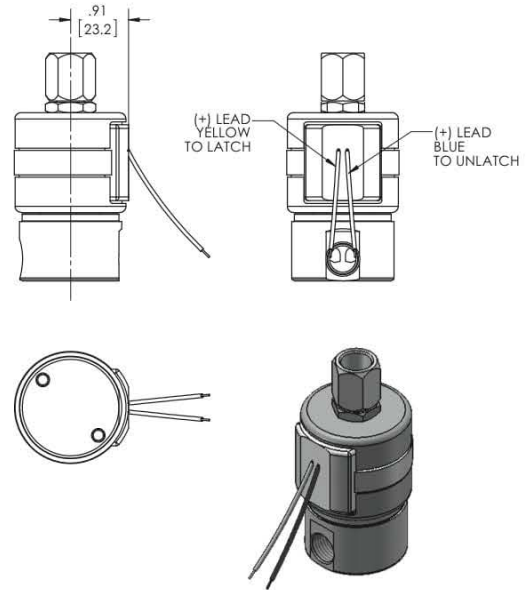
Options: Alternate Port Locations, Metering and Alternate Elastomers.*

* Consult representative or factory for options and specifications.





**SERIES 20
MODEL 23
3WNO
DIN COIL
MAGNETIC LATCHING**



**SERIES 20
MODEL 23
3WNO
COIL WITH LEADS
MAGNETIC LATCHING**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.	ORIFICE SIZE		CV FACTOR		DIN COIL 1/8 NPT PORTS	VALVE NUMBER		LEADED COIL	
	N.O.	N.C.	N.O.	N.C.		1/4 NPT PORTS	1/8 NPT PORTS	1/4 NPT PORTS	
400	1/32	1/32	.024	.024	24GG7XELM	24GG9ZELM	24GG7XGLM	24GG9ZGLM	
150	3/64	1/16	.052	.095	24HJ7XELM	24HJ9ZELM	24HJ7XGLM	24HJ9ZGLM	
100	1/16	1/16	.095	.095	24JJ7XELM	24JJ9ZELM	24JJ7XGLM	24JJ9ZGLM	
100	1/16	3/32	.095	.156	24JK7XELM	24JK9ZELM	24JK7XGLM	24JK9ZGLM	
100	1/16	1/8	.095	.214	24JN7XELM	24JN9ZELM	24JN7XGLM	24JNZZGLM	
75	3/32	1/8	.156	.214	24KN7XELM	24KN9ZELM	24KN7XGLM	24KN9ZGLM	

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (24JJ7XELM 12/DC) REPAIR PACK (K24JJXL DC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (O24JJ7DEL 12/DC)

MAGNET LATCHING VALVES



Note: This valve also available as an operator. Refer to following page.

Series 20 >> Model 25

3-Way Directional Control Magnet Latching Valve

This type of valve is often used in remote areas where continuous power may not be available or with battery-powered portable equipment where power capacity is limited. It is also valuable in equipment where coil heating, due to continuous application of power, is undesirable. Air and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, oils, some hydraulic fluids, and many other media require special seal materials.

- Meets today's demand for economy of space.
- Uses power only during latching and un-latching.
- Great for medical and chemical analyzers.

OPERATING CONDITIONS

Media: Air, water, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, and many oils require special seal materials. (Series 20 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 6 to 60V DC

Nominal Power: DC – 10.0 Watts

Coil Construction: Molded coil with DIN 43650 Form A Connector (Std.), Leadwires (Opt.) For your convenience we have the female DIN style mating connector No. 20-198** available for an additional fee.*

Typical Response Time on Air: Approximate 30 millisecond pulse to energize and de-energize.

Operating Speed: Up to 600 CPM

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.) or Brass (Opt.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: Standard 1/8" and 1/4" NPT (other ports available).*

Housing: Leadwires and DIN Style Connector.

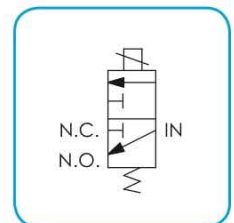
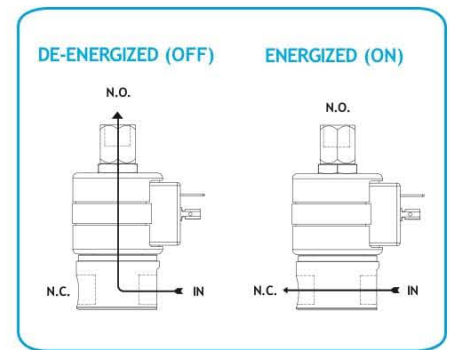
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

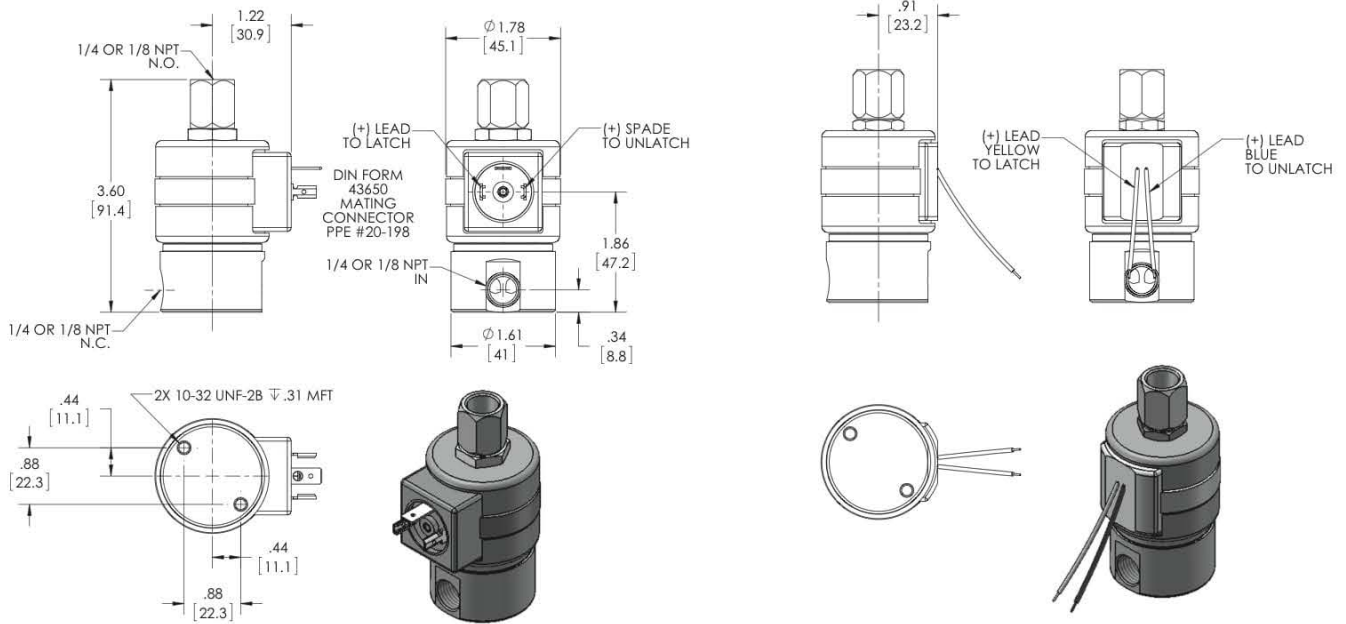
Valve Weight: 1.2 lb average

Repair Packs: See table on proceeding page.

Options: Alternate Port Locations, Metering and Alternate Elastomers.*

* Consult representative or factory for options and specifications.





**SERIES 20
MODEL 23
3-WAY DIRECTIONAL CONTROL
DIN COIL
MAGNETIC LATCHING**

**SERIES 20
MODEL 23
3-WAY DIRECTIONAL CONTROL
COIL WITH LEADS
MAGNETIC LATCHING**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.	ORIFICE SIZE		CV FACTOR		DIN COIL	VALVE NUMBER			
	DC	N.C.	N.O.	N.C.	N.O.	1/8 NPT PORTS	1/4 NPT PORTS	1/8 NPT PORTS	1/4 NPT PORTS
500	1/32	1/32	.024	.024	25GG7XELM	25GG9ZELM	25GG7XGLM	25GG9ZGLM	
235	3/64	3/64	.052	.052	25HH7XELM	25HH9ZELM	25HH7XGLM	25HH9ZGLM	
200	1/16	3/64	.095	.052	25JH7XELM	25JH9ZELM	25JH7XGLM	25JH9ZGLM	
150	1/16	1/16	.095	.095	25JJ7XELM	25JJ9ZELM	25JJ7XGLM	25JJ9ZGLM	
100	3/32	3/32	.156	.156	25KK7XELM	25KK9ZELM	25KK7XGLM	25KK9ZGLM	
100	1/8	3/32	.214	.156	25NK7XELM	25NK9ZELM	25NK7XGLM	25NK9ZGLM	

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (25JJ7XELM 12/DC) REPAIR PACK (K25JJXL DC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (O25JJ7DEL 12/DC)

MAGNET LATCHING VALVES



Note: This valve also available as an operator. Refer to following page.

Series 20 >> Model 26

3-Way Multi-Purpose Magnet Latching Valve

This type of valve is often used in remote areas where continuous power may not be available or with battery-powered portable equipment where power capacity is limited. It is also valuable in equipment where coil heating, due to continuous application of power, is undesirable. Air and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, oils, some hydraulic fluids, and many other media require special seal materials.

- Meets today's demand for economy of space.
- Uses power only during latching and un-latching.
- Great for medical and chemical analyzers.

OPERATING CONDITIONS

Media: Air, water, and other fluids compatible with standard Buna seals. Hot water, steam, gasoline, and many oils require special seal materials. (Series 20 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns*

ELECTRICAL CHARACTERISTICS

Coil Voltage: 6 to 60V DC

Nominal Power: DC – 10.0 Watts

Coil Construction: Molded coil with DIN 43650 Form A Connector (Std.), Leadwires (Opt.) For your convenience we have the female DIN style mating connector No. 20-198** available for an additional fee.*

Typical Response Time on Air: Approximate 30 millisecond pulse to energize and de-energize.

Operating Speed: Up to 600 CPM

MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.) or Brass (Opt.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

Orifice Diameter: See table on proceeding page.

Porting: Standard 1/8" and 1/4" NPT (other ports available).*

Housing: Leadwires and DIN Style Connector.

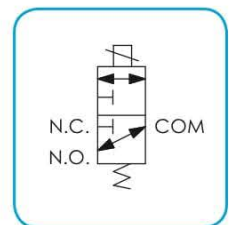
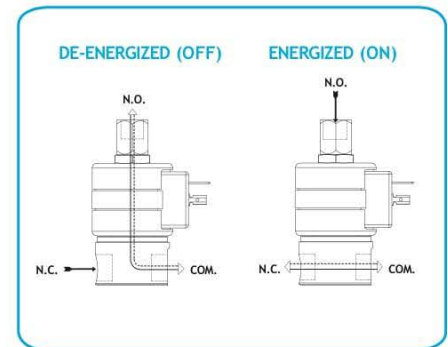
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

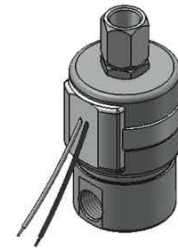
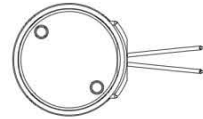
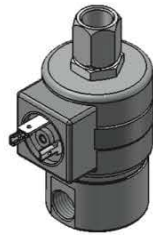
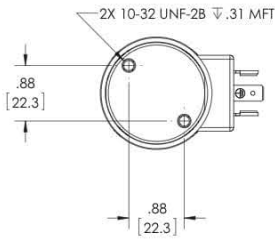
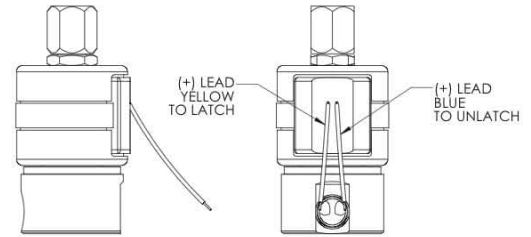
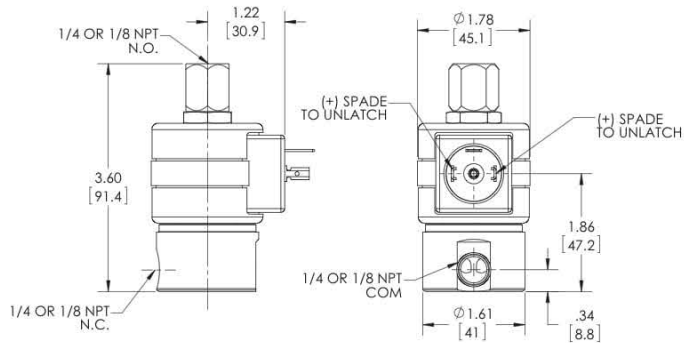
Valve Weight: 1.2 lb average

Repair Packs: See table on proceeding page.

Options: Alternate Port Locations, Metering and Alternate Elastomers.*

* Consult representative or factory for options and specifications.





**SERIES 20
MODEL 23
3-WAY MULTI-PURPOSE
DIN COIL
MAGNETIC LATCHING**

**SERIES 20
MODEL 23
3-WAY MULTI-PURPOSE
COIL WITH LEADS
MAGNETIC LATCHING**

VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF.	ORIFICE SIZE		CV FACTOR		VALVE NUMBER			
	N.C.	N.O.	N.C.	N.O.	DIN COIL 1/8 NPT PORTS	1/4 NPT PORTS	LEADED COIL 1/8 NPT PORTS	1/4 NPT PORTS
400	1/32	1/32	.024	.024	26GG7XELM	26GG9ZELM	26GG7XGLM	26GG9ZGLM
150	3/64	3/64	.052	.052	26HH7XELM	26HH9ZELM	26HH7XGLM	26HH9ZGLM
100	1/16	1/16	.095	.095	26JJ7XELM	26JJ9ZELM	26JJ7XGLM	26JJ9ZGLM
75	3/32	3/32	.156	.156	26KK7XELM	26KK9ZELM	26KK7XGLM	26KK9ZGLM

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (26JJ7XELM 12/DC) REPAIR PACK (K26JJXL DC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (O26JJ7DEL 12/DC)

MAGNET LATCHING VALVES



Series 80 >> Model 827

Large Orifice, Direct Lift – 2-Way Normally Closed Magnet Latching Valve

Peter Paul offers a line of large orifice solenoid valves to address process industry requirements for high flow rate or quick dump and fill capacity. These DC powered valves are also suited for low pressure gas and liquid applications. Port sizes for direct lift, two way normally closed versions range from 3/8" to 3/4" NPT, with pressure ratings from 0 to 40 PSI.

- Large orifice sizes for high flow applications.
- Body is made of brass forgings or 316 stainless steel.
- Operates at low pressure without any differential pressure across the diaphragm – Direct Lift.
- NPT threaded connections.
- Direct Lift model is available in normally closed only.

OPERATING CONDITIONS

Media: Air, water, and other fluids compatible with Buna seals. Hot water, steam, gasoline and many oils require special seal materials. Consult representative or factory. (Series 80 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Leakage: Bubble tight

ELECTRICAL CHARACTERISTICS

Coil Voltage: 3.6 to 28V DC

Nominal Power: DC – 10.0 Watts

Coil Construction: Molded

Operating Speed: Up to 100 CPM

MECHANICAL CHARACTERISTICS

Body: Brass (Std.), 316 Stainless Steel (Opt.)

Internal Components: Stainless Steel (Std.)

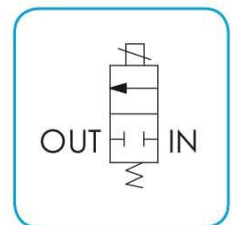
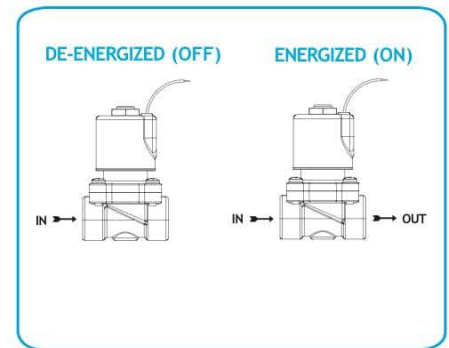
Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

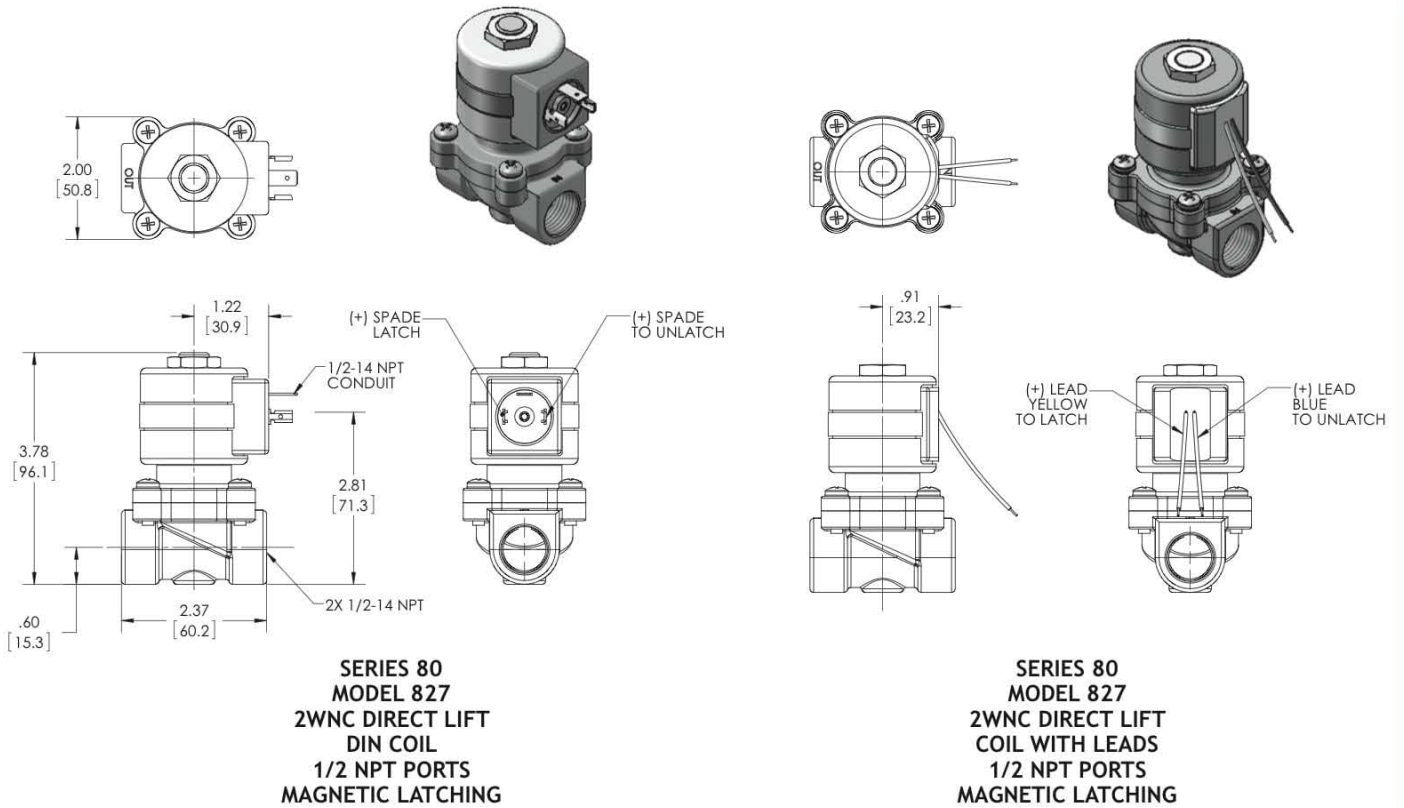
Housing: Lead wires and DIN style connector, female DIN style mating connector No. 20-198 available.

Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

Repair Packs: See table on proceeding page.

Options: Alternate Elastomers* Consult representative or factory for options and specifications.





VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF. DC	MIN. OPER. PRESS. DIFF.	ORIFICE SIZE N.C.	CV FACTOR N.C.	PIPE SIZE	VALVE NUMBER DIN COIL	LEADED COIL
40	0	1/2	4.0	3/8" NPT	827B12DELM	827B12DGLM
40	0	1/2	5.8	1/2" NPT	827Y19DELM	827Y19DGLM
30	0	3/4	13	3/4" NPT	827D13DELM	827D13DGLM

ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (827B12DELM 12/DC) REPAIR PACK (K827BDL DC)

NO OPERATOR AVAILABLE

MAGNET LATCHING VALVES



Note: This valve also available as an operator. Refer to following page.

Series 80 >> Model 828

Large Orifice, Internally Piloted – 2-Way Normally Closed Magnet Latching Valve

Peter Paul offers a line of large orifice solenoid valves to address process industry requirements for high flow rate or quick dump and fill capacity. These DC powered valves are also suited for low pressure gas and liquid applications. Port sizes for pilot lift, two way normally closed versions range from 1/2" to 3" NPT, with pressure ratings from 3 to 200 PSI.

- Large orifice sizes for high flow applications.
- Body is made of brass forgings or 316 stainless steel.
- Operate on differential pressure – Internal Pilot.
- NPT threaded connections.
- Same coils and housings as our popular 20 Series.

OPERATING CONDITIONS

Media: Air, water, and other fluids compatible with Buna seals. Hot water, steam, gasoline and many oils require special seal materials. Consult representative or factory. (Series 80 pressure ratings may change due to the viscosity of the liquid.)*

Valve Temperature Range: Standard Valves - 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.*

Maximum Operating Pressure Differentials: See table on proceeding page.

Minimum Operating Pressure Differentials: 3 PSI

Leakage: Bubble tight

ELECTRICAL CHARACTERISTICS

Coil Voltage: 3.6 to 28V DC

Nominal Power: DC – 10 Watts

Coil Construction: Molded

Operating Speed: Up to 100 CPM

MECHANICAL CHARACTERISTICS

Body: Brass (Std.), Stainless Steel (Opt.)

Internal Components: Stainless Steel (Std.)

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.*

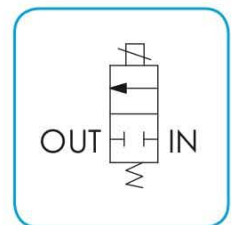
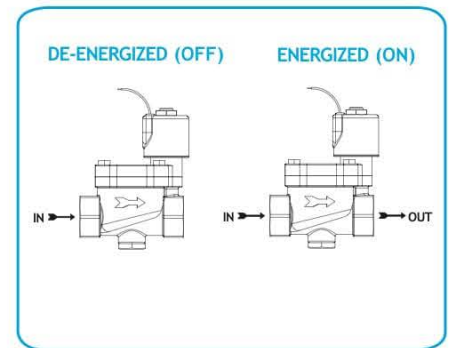
Housing: Lead Wires and DIN Style Connector, female DIN style mating connector No. 20-198 available.

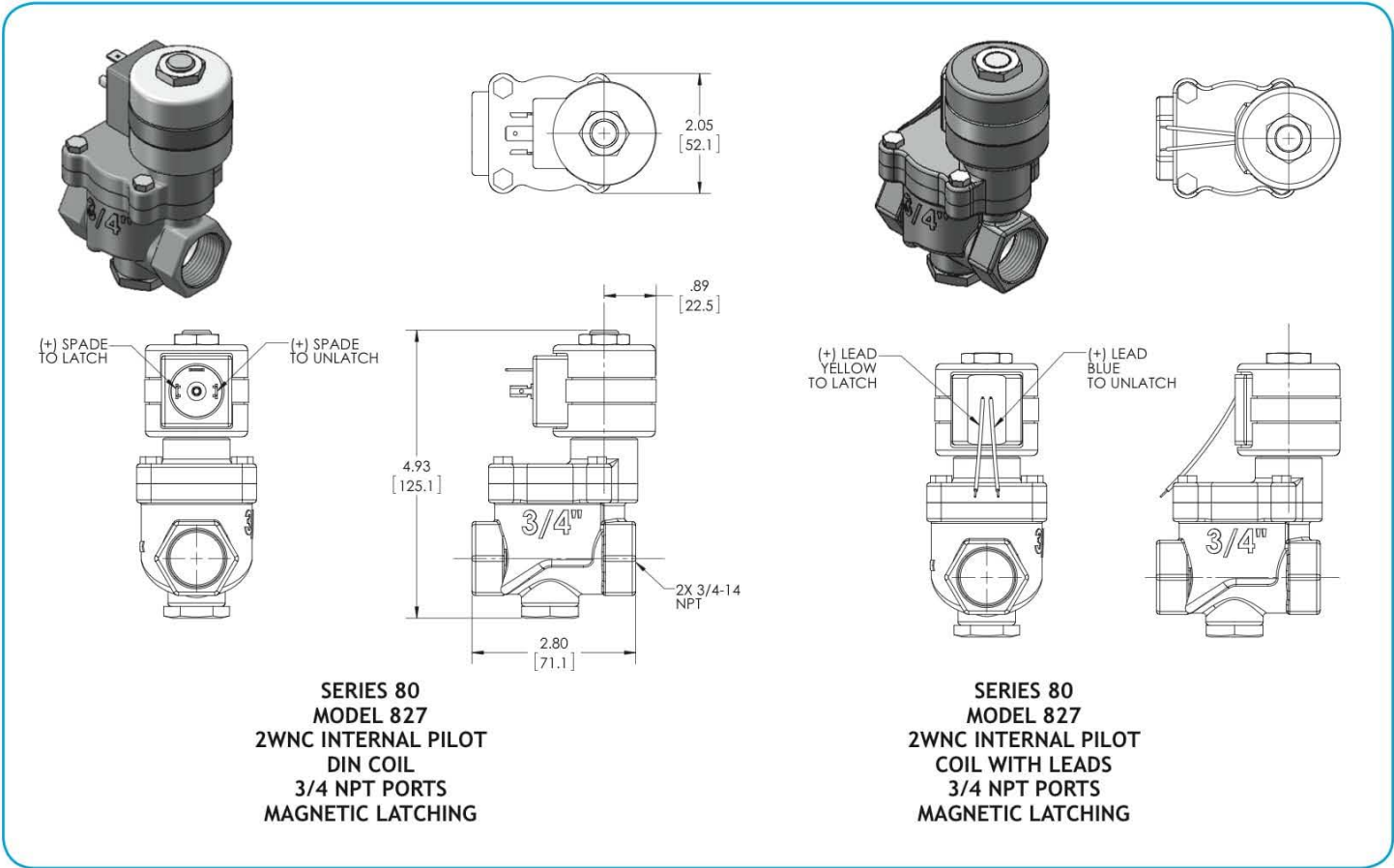
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

Repair Packs: See table on proceeding page.

Options: Alternate Elastomers

* Consult representative or factory for options and specifications.





VALVE SPECIFICATIONS

MAX. OPER. PRESS. DIFF. DC	MIN. OPER. PRESS. DIFF.	ORIFICE SIZE N.C.	CV FACTOR N.C.	VALVE NUMBER LEADED COIL	DIN COIL
200	3	1/2	4.0	828B12DGLM	828B12DELM
200	3	3/4	5.8	828Y19DGLM	828Y19DELM
200	3	1	13.0	828D13DGLM	828D13DELM
200	3	1 1/2	29.0	828E14DGLM	828E14DELM
200	3	2	46.0	828F16DGLM	828F16DELM
200	3	2 1/2	76.0	828W17DGLM	828W17DELM
200	3	3	98.0	828W18DGLM	828W18DELM

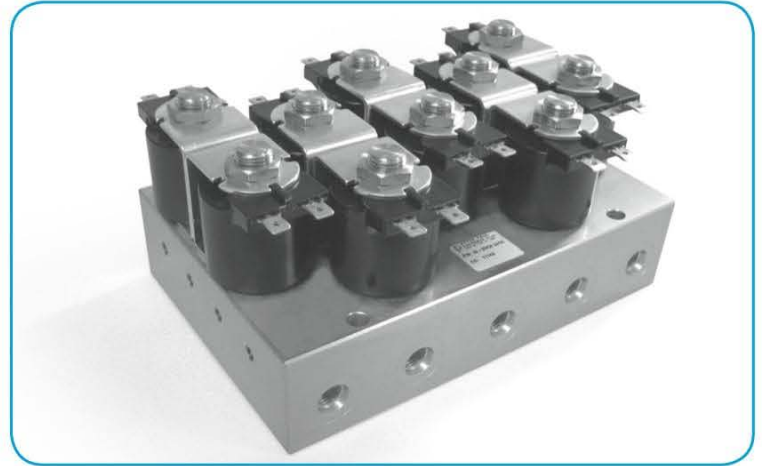
ORDERING INFORMATION:

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (828B12DELM 12/DC) REPAIR PACK (K828BDL DC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (O828B12DELM 12/DC)

Broad Range of Solenoid Valve Manifolds

Standard, conventional, one piece machined stainless steel, aluminum, or optional brass manifolds allow the economical, low profile grouping of valves in compact arrays. These manifolds are perfect for fixed, continuous operations. Available with Series 50, 30, 20 and 70 operators.

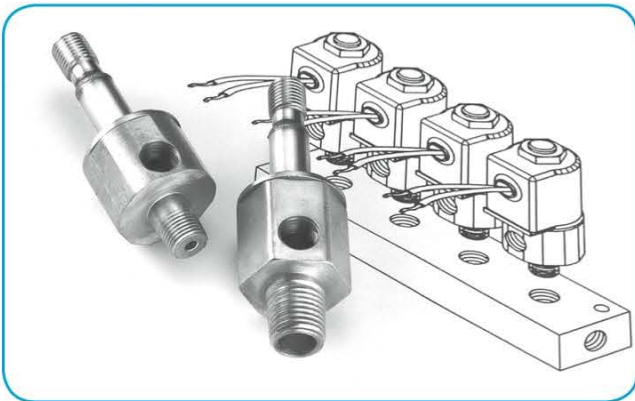


Special Valve for CFC Recovery Solenoid Valves for Refrigerant Applications

Basic valve and manifold combinations for the refrigerant recovery/recycle equipment market. Our built in back pressure design eliminates the need for check valves and refrigerant leakage to atmosphere during HVACR system servicing.



	SERIES 20 WITH BACK PRESSURE	SERIES 20 WITHOUT BACK PRESSURE	SERIES 50
Valve Type	2-Way Normally Closed	2-Way Normally Closed	2-Way Normally Closed
Orifice Size	5/64"	5/64"	1/16" or 5/64"
Voltage	Any AC or DC voltage	Any AC or DC voltage	Any AC or DC voltage
Inlet Pressure	280 psi maximum	300 psi maximum	300 psi maximum
Back Pressure	150 psi maximum	none	none
Power Consumption	12 Watts AC; 9.5 Watts DC	12 Watts AC; 9.5 Watts DC	6.6 Watts AC; 7 Watts DC
Electrical Connections	Spade terminals	Spade terminals	Spade terminals
Body Connections	1/8" NPT pipe ports or copper (sweat) tubing	1/8" NPT pipe ports or copper (sweat) tubing	1/8" NPT pipe ports or manifold mounting
Seals	Neoprene®	Neoprene®	Neoprene®



Easily Mounted Screw-In Solenoid Valve Bodies Now Offered

Our brass, screw-in solenoid valve 1/8" NPT and 1/4" NPT male ports simplify valve to manifold attachment and manifold production. The brass valve bodies help to eliminate leakage and provide required high burst pressure ratings and also make manifolds easier to produce, with one center drill connecting the valves.



Stacking Valve Bodies Inexpensive Manifolds

A stacking valve body for Series 15 and 50 are held together with threaded tie rods and consist of passivated 303 stainless steel or anodized aluminum bodies and is designed for multiple solenoid valves operations and greater flow capacity up to 700% for quicker response times.

This building block manifold is used in the emission analyzer and gas processing fields. The modules are 90% machined and drilled from bar stock and can be in a center or end position in the manifold. A pre-drilled port connects all modules and the finish drilling of each valves module determines the flow pattern through the manifold. Now individuals can mix and match these vales bodies with minor drilling operations to meet user application requirements.

Type Available: Grommet, Conduit, Spade Terminal or DIN Type

Coil Options: Molded and Non-molded

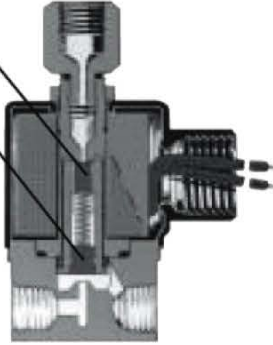
Series Available: 15 and 50

Orifice Sizes: Refer to Series 15 or 50

Porting: 1/8" NPT

Pressure Rating: Refer to Series 15 or 50

COLOR CODED SEAL INSERTS



Seal Material

Peter Paul Electronics offers a large selection of optional seal materials. Standard seal material for catalog valves is nitrile elastomer, a good general purpose compound, satisfactory for most applications. Insert materials such as FKM, Nordel, KeL-F®, and Teflon® are available for applications where excessive heat is a factor, or for use with any media that can cause insert swelling or deterioration. Consult factory for proper usage.

TRADE NAME	COLOR CODE
Hypalon®	Green
Kalrez®	Black
Neoprene®	Red
Neoprene®	Black
Nylon®	Opaque
Teflon®	White
Urethane®	Yellow
FKM	Brown
Santoprene®2	Off-White
KEL-F®1	Opaque
Nitrile (Buna N)	Blue
Nordel	Gray
Silicone	Red



Kalrez® Seals

Affordable for Volume Valve Applications

Kalrez® Perfluoroelastomer seals, a product of DuPont Dow Elastomers, are impervious to more than 1,600 chemicals and solvents inert to most chemically induced swelling useful in temperatures from -20°F to 600°F, and last longer than other elastomer seals. Kalrez® is an expensive design material even in medical and chemical resistant applications which no other seal material is durable. These molded seals offer double the price of comparable valves incorporating other elastomer seals.

We have a significant cost saving procedure for laser cutting Kalrez® from sheet stock for solenoid valve plunger assemblies. The amount of Kalrez® used per seal is cut in half, reducing the cost per seal even in small quantities by 40-60%. Previously, molded seals requiring more than double the amount of Kalrez® are replaced by a seal disc and stainless steel cup which are pressed fit into a plunger. The seal cup governs the plunger length more efficiently and two notches on the seal circumference allows the seal to vent gases from within the plunger.



Food-Grade Valve Applications

Vending Machines

NSF criteria C-2 covers sanitation requirements for equipment and devices used in storing, preparing or handling foods and beverages. EPDM and Santoprene® are materials that meet the FDA requirements for non-metallic material that comes in contact with food-type media. Fluorel® is used where higher temperatures exist.



Swell-Resistant Printers Gum Seals

We have an elastomer with customized nitrile rubber and unique for use of water-based printing inks. We are supplying this in conventional plungers and disk compensated plungers and media isolation diaphragms for ink dispensing and retrieval system, some in high-speed ink jet printers.

Normal elastomers and printer inks can sometimes combine and swell causing the lettering and logo to become distorted. This special elastomer molds well in existing tooling and is economical, performing well for the water-based inks. This product is available in Series 50 and 20 sizes in the diaphragm media isolation valves.



Solenoid Valves for Low Temperature Applications

Our solenoid valves are also widely employed at low temperatures to -40°C involving gaseous and liquid compounds including refrigerants and liquid nitrogen. For these uses, the full range of our 2-way and 3-way valves can be specified with the Teflon or Kel-F seals required for processing semi-corrosives; typically all valves must be cleaned for oxygen service to remove oil and other surface contaminants. In many applications a compressed liquid is metered by the valve. Many of the valves will be UL recognized and CSA listed.

EPDM Seals

High Pressure Gas Applications

Special EPDM (Ethylene Propylene Diene Monomers) seals are used where high-pressured gases tend to be absorbed in standard rubber seals. When gas is absorbed into a rubber solenoid valve seal it will cause the rubber to display a phenomenon called explosive decompression. If the system is vented or pressured reduce, gas that is trapped inside will cause the seal to balloon and swell, sometimes fracturing.

Used in place of conventional seal materials, such as urethanes, EPDM is more suitable for high pressured gases used in aerospace projects.

FKM Seals

For Gasoline And Propane Valve Applications

FKM solenoid valve seals are used for powered-vehicles and reformulated gasoline applications where solenoid valve seal swelling, cracking, and decomposition are occurring over time. This has created the need to reformulate existing FKM compounds to maximize their properties in reformulated gasolines with up to 15% MTBE and alcohol.

By maximizing the fluorine content of the FKM seals, swell is reduced. Further enhancement of the physical properties is made by removing the traditional colorant and adding carbon black. Beyond vehicular applications other related uses, particularly the medical field, have shown to be more stable and long-lasting when the FKM is applied.



Added Moisture Protection Available for Series 50 Explosion-Proof Solenoid Valves

Extreme Weather Conditions

Our Series 50 explosion-proof solenoid valves and operators with molded coil for hazardous locations are offered with added protection from moisture in the form of O-rings and flat gasket fluorocarbon elasometer seals. These added seals will provide a solenoid valve at lower cost than one with a fully potted coil, top and bottom seal, and an RTV conduit seal.

Explosion-Proof Solenoid Valves are offered in several designs, based on maximum operating pressure differential, orifice size, CV factor, and operating media. These valves operate in hot water, steam, gasoline, oil, refrigerant, hydraulic fluid, and other environments requiring special seal materials. This design with 1/8" NPT allows these valves to meet the requirements hazardous locations, Class 1 Group C and D, and Class II Group E, F, and G.

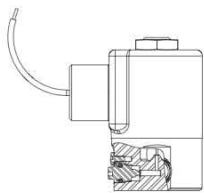


Body Options

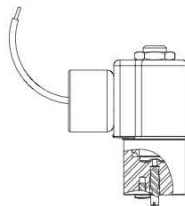
For Most Port Connectors

Constructed of stainless steel, brass, anodized aluminum, nylon, and other plastics. Manual override, metering, metered bypass, manifold mount, flange mount, 90° port left and right, orifice metering, and some other special options.

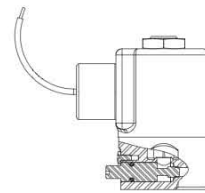
FLOW ADJUSTING OPTIONS



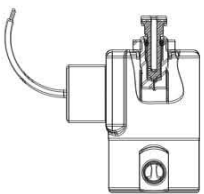
OPTION T
Metering Series 20 & 30:
3/64 - 1/8 Orifice valves



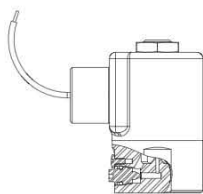
OPTION T
Metering Series 20 & 30:
1/32 - 5/64 Orifice Valves



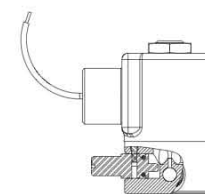
OPTION F - Metering
Series 20: 5/32 - 1/4 Orifice Valves
Series 70: 3/32 - 1/4 Orifice Valves



OPTION U
Flow metered at exhaust port outlet



OPTION W
Metered bypass



OPTION Y
manual override - valve may be operated manually by rotating stem 90°



Screw-In Series 20 Solenoid Valve Bodies Offered with Large Ports

Our large port Screw-in Series 20 valve body is for simplified manifold mounting and speed in processes involving liquid or gaseous media. Compatible with brass, stainless steel, or anodized aluminum manifolds. These brass bodies incorporate dual O-rings to eliminate leakage and provide the required high burst pressure ratings.



Unique Valve Indicates the Location Of Track Flaws for the Railroad Industry **Easy Service Ability**

The Series 30 spray valve (12 VDC, 8 watts, 60 psi valve) is used by rail testing service organizations for checking each rail to automatically identify faults, cracks, and railroad wear loss. When a flaw is found a yellow oil-based paint is dispersed from the valve. The lower nozzle section is removable so that all parts can be cleaned to prevent clogging. In addition to marking track areas, the track riding test vehicles provide their operators with a visual display of track anomalies including cross-sectional views and real head wear diagrams and retain these data electronically for offline analysis and report generations.



High Flow Valve **For LP and Natural Gas Applications**

The Series 30 Normally Closed Valves for LP and natural gas has low pressures up to 2 psi, larger flow passages and drilled ports for higher flows through the valves. With a high flow of CV of .57, compact size, and economy, this solenoid valve can be used for commercial cookers or any kind of gas-fired heaters, decorative gas-fired lights, infrared heaters, small heaters, patio heaters, and more.



Welded Stainless Steel Fittings

Series 50

Series 50, 3-way, Directional Control Valve with stainless steel components and FKM seals for oxygen service incorporate welded fittings with threaded ends. Valves are designed to meet requirements in analysis equipment and other applications requiring welded components.



High Flow Vacuum Solenoid Valves

Medical and Industrial Applications

These solenoid valves are for use in vacuum chambers for sterilizing medical instruments. Two basic models have been developed: The smaller one is electrically operated with 1/2" orifice 2-way Normally Closed with FKM plunger seals and 12 VDC power. The larger valve is air-operated by a cylinder with 1" orifice with extended plunger stroke to meet high-flow requirements. Assembly of this unit involves electron beam welding of flange to body and a spring-loaded assembly seals on the orifice for fail safe operation. Both valves employ anodized aluminum bodies with stainless steel inner moving parts.



Stainless Steel Series 58 Solenoid Valves

Manifold Mount on 10-32 Female Threads

In addition to our line of molded 58 series solenoid valves, we have developed two stainless steel bodies that supplement the six models of plastic valves used in portable medical devices, analyzers, portable test equipment and similar applications.

Two stainless steel bodies are offered in 2-way normally closed 10/32 stud mount (valve shown on left), and 3-way normally closed, piped exhaust, 10/32 female ports (valve shown on right).



Series 50 Valves Configured for Precision Electronic Production Equipment

We've announced a new, completely sealed, Series 50 solenoid valve to meet today's stringent requirements for chip manufacturing, analysis equipment, and other types of ultra high purity equipment requiring welded components.

Available immediately in a 2-way, Normally Closed configuration, the valve can be produced in many AC or DC voltages. These Series 50 valves feature all 430F stainless steel construction with either 1/8" or 1/4" O.D. stainless steel welded tubing as their port connections. The sleeve assemblies of these valves can be attached with conventional threads and elastomeric seals or, for the most critical applications, with the body welded directly to the sleeve assembly. Both grommet and conduit-style housings are offered, with internal electro polish available.

Employing all our standard components for millions of trouble-free operating cycles, these fully sealed Series 50 solenoid valves are available with all standard options including 3-way operation, quiet operating diode rectified coils, and more for continuous operation at maximum rated pressures as required.



Metering Adapter Adds to Utility of Series 20 and 30 Solenoid Valves

This adjustable, stainless steel metered adapter, for use on either the top inlet or exhaust, allows the user to set the best possible flow parameters for the specific application. With these adapters, it's possible to pipe the exhaust from the solenoid valve out of the area rather than exhausting directly to atmosphere. The adapters are available for 1/8" NPT or 1/4" NPT porting and are used for liquid and gaseous media and is typically used as a metered exhaust for 3-way normally open valves, or as a metered normally open port in a multi-purpose or directional control valves.



Manual Override Now Offered on Solenoid Valves

The manual override option is built into the bodies of these valves and won't affect their normal operation except in the case of power failure or similar circumstance. The manual override option adds marginally to the cost of the valve and is available as a factory option on many models of our Series 58, 20, and 70 solenoid valves.



Solenoid Squirt Valve

For Process Industry

Our squirt valve is an in-line two-way Normally Closed Series 15 or 50 solenoid valve with double plunger seal that does not allow continuous flow, but will shut off, energized or de-energized. This squirt solenoid valve comes with a variety of tubes sizes which control drop sizes. Low pressure rating of two psi to ten psi is available. Anything less than two pounds pressure doesn't provide enough velocity for a good drop or squirt. The small dispenser tube is critical only in its diameter and controls drop size and squirt length and the bigger the drop the shorter the carry. These stainless steel versions are available in either AC or DC.



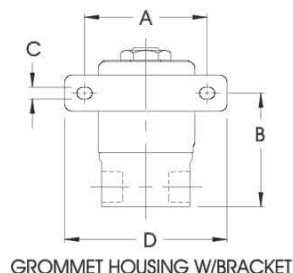
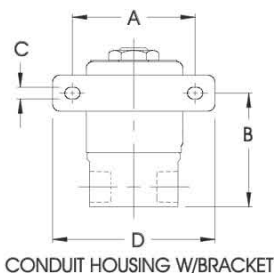
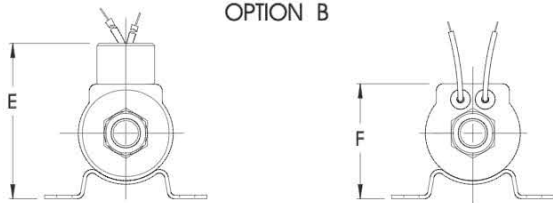
Universal Mounting Bracket

We have a universal mounting bracket for when the mounting surface is very thick or physically inaccessible. It is part number B96, for individual, solenoid valves in Series 15, 20, 30, 50, and 70.

The zinc plated, carbon steel bracket is provided with screws and several countersunk hole configurations, the brackets are easily installed and may be used in virtually any operating environment.

BRACKET DIMENSIONS FOR ALL SERIES

OPTION B



INCHES

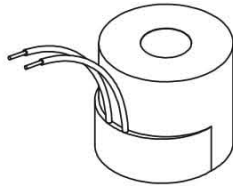
SERIES	A	B	C	D	E	F
20	2.13	1.97	.20	2.81	2.67	1.98
30	2.13	1.53	.20	2.81	2.67	1.98
50	1.50	1.53	.19	1.94	1.88	1.34
70	2.75	2.44	.20	3.44	3.31	2.61

MILLIMETERS

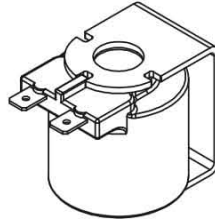
SERIES	A	B	C	D	E	F
20	54	50	5.2	71.3	67.9	50.4
30	54	38.9	5.2	71.3	67.9	50.4
50	38.1	38.9	4.8	49.2	47.6	34.1
70	69.8	61.9	5.2	87.3	84.1	66.3

Coil Options For All Environments

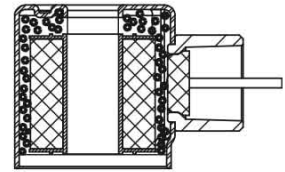
Coil voltage ratings from 1.5-1150 volts AC and DC and a variety of the construction varieties including: non-molded, molded, high temperature, potted coil and housing, diode rectified coil, third wire ground, and spade terminal coil.



OPTION M
Waterproof molded coil Class F (155°C) rating. Coil completely molded in epoxy for maximum moisture resistance. Class H Optional.



OPTION KM
Molded spade terminal coil and yoke—epoxy molded coil with two 1/4" spade terminals for quick assembly and disconnect.

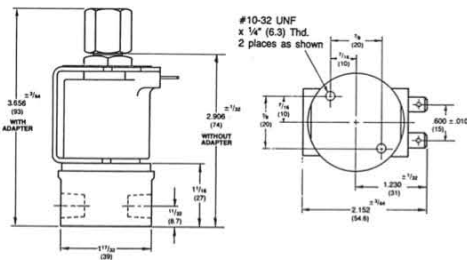


OPTION P
Coil epoxy potted into housing offers maximum moisture and vibration resistance. Meets UL rain tight and rainproof housing requirements and NEMA-4 classifications.

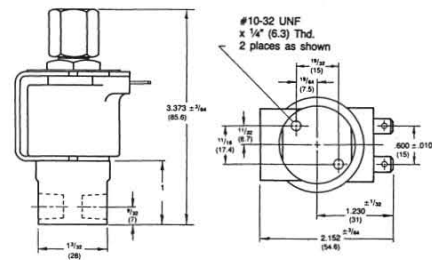
* NOTE: Height of valve increases with Spade Terminal option—see drawings below

VALVE BODY DIMENSIONS-SPADE TERMINAL COILS

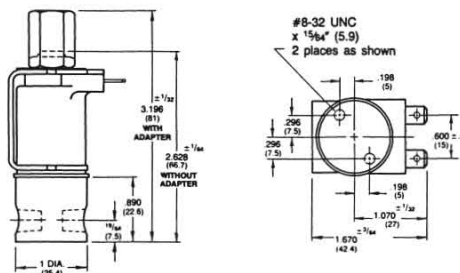
SERIES 20



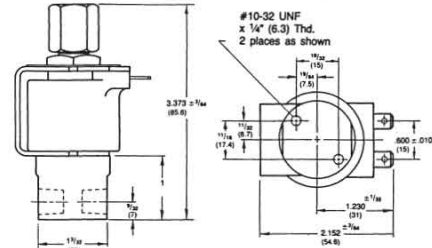
SERIES 30 - 3-Way Valve



SERIES 50



SERIES 30 - 2-Way Valve





Diode Rectified Solenoid Valve Coils for Quiet Operation

Most solenoid valves are powered by AC current, primarily because AC voltages are readily available. AC solenoid has faster pull-in time at a ratio as high as 3:1 compared to the DC power. AC or DC powered valves have a natural audible “click” at the beginning of each cycle and sometimes can emit a low but audible hum in operation.

Valves destined for quiet environments cannot accept the possibility of a hum or a buzz. In an AC valve, anything that will prevent proper mating of the plunger pole faces, including dust and dirt, cause noisy operation and because of the in-rush current and fast cycling, can cause higher heat rise than would be experienced.

All of these AC valves conditions have led us to provide many AC valves with diode rectified coils, allowing the valves to run on DC power for cooler and quieter operation in applications where these are required.

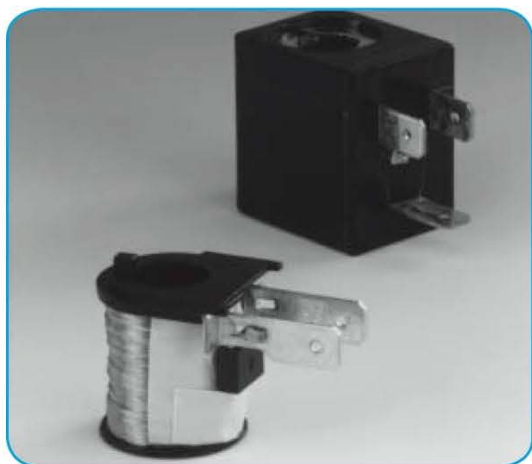
We offer the most basic solenoid valve with a diode rectified coil to meet specified user criteria and their use has not cause a significant cost increase where DC operation is necessary. For applications which require it, a 4-diode full wave bridge is available.



Peter Paul Water-Resistant Valves for Submerged Operations

The Series 15 or 50 valves with encapsulated coil are for outdoor uses including boat trailers, HVACR, irrigation systems, off-road equipment, trucks, buses, trains or other vehicles experiencing exposure to wet environment. The valve feature a liquid epoxy spotted coil assembly and a rugged housing covered with a baked-on epoxy/polyester finish rated at 1000+ hours in a salt spray test. The potting provides increased heat transfer capabilities through elimination of trapped air pockets for a cooler running valve

All internal parts are constructed of stainless steel and brass and corrosion resistant parts are used for exposed parts. The standard version operates on 12VDC but dual power lead versions can be used for mounting on non-conductive surfaces. Additional power options are also available.



Encapsulated Diode Spade Coil for Series 15 Solenoid Valves

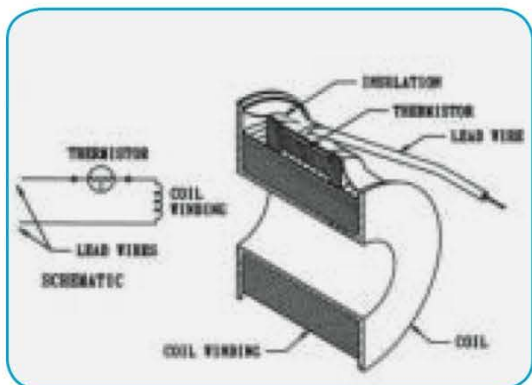
A full wave bridge is encapsulated into the coil assembly Series 15 solenoid valves. Each encapsulated coil contains a diode circuit that converts common 50/60Hz voltage to DC. Running the coil on DC eliminates the in-rush current, thus limiting the excessive heat build-up encountered with frequently cycled valves. The DC coil voltage also allows the use of an elastomeric damper within the valve in itself. This damper reduces the audible click which occurs on actuation as well as increases the life of the valve.



Electrical Connectors

Solenoid valves can be configured with numerous coil options, voltages, orifice sizes, pressure ratings, elastomers, footprints, and more. There are a wide range of attachments and add-ons such as splice boxes, mounting brackets, manifolds, etc. to enhance the utility of the solenoid valve.

Solenoid valves are factory equipped with required pin connectors and specified leads and lead lengths to allow installation of the valves by maintenance personal without the need for an electrical engineer. Electrical connectors include male or female pins and connectors, custom lead lengths, junction box connectors, and other simple fasteners which can be handled on the floor or in the field. Typical electrical connectors include pin styles, receptacles, housing flag connectors, and two-or three-pin flange connectors.



Time Delay Coils

Check Process Before Media Flow

The Series 30 solenoid valves are for time delay coils with built-in thermistor employed on many oil burners. The thermistor circuit in the solenoid valve coil delays the pickup of the valve plunger from 2 to 6 seconds. This allows the solenoid to be certain of the process parameters before media flow commences.

An example is the start-up sequence for an oil burner. If there is no flame, oil flow may flood the burner, often requiring maintenance of an extended period of time before a re-start can be initiated. When the call activates the burner, the solenoid valves time delay function allows the pump and fan/motor to reach operating speed before starting fuel flow.



Dual Voltage Solenoid Valve Coils

For small AC applications, it has become common for the motor to be configured to operate at one of two voltage levels, 120/240 or 240/280 VAC-60Hz.

The Series 20, 50 and 80, 2 and 3-way solenoid valves can provide dual voltage coils to allow the solenoid valves to be wired for either of the applicable voltages, reducing the inventory and product installation/assembly at the distributor, OEM, and end user locations. The dual voltage solenoid valves are identical to their single-voltage versions except for the additional coil windings and leads.



Series 58 Super Sub-Miniature Coils

These coils were specifically designed for small places. The Sub-Miniature coil mounts on our existing Series 58 Bodies, ie Stainless Steel Screw-In or 10-32 Ports and our standard plastic bodies, Manifold Mount or 10-32 Ports. These valves are ideal for micro electronic production equipment and medical or chemical analytical applications where space is limited. Consult factory for size, pressure ratings, orifice sizes and power requirements.

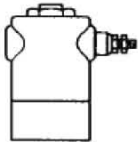
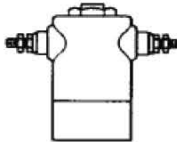
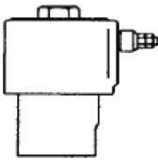
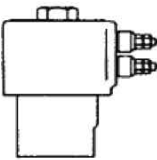
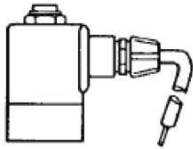
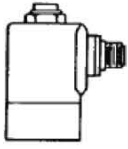
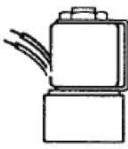
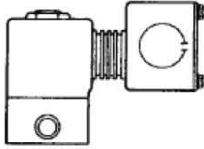
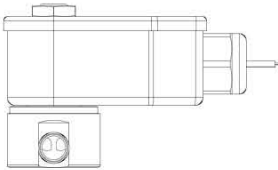

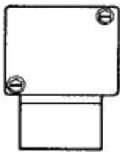
HOUSING OPTIONS



Housing Options

Constructed of stainless steel, plated and painted steel. Styles include strain relief connector, single automotive, double automotive, AN connector, splice box, yoke, conduit, grommet, bracket, JIC housing, potted coil and housing.

FLOW ADJUSTING OPTIONS

<p>SERIES 20 & 30 OPTION AS AUTOMOTIVE TERMINAL SINGLE</p> 	<p>SERIES 20 & 30 OPTION AD AUTOMOTIVE TERMINAL DOUBLE</p> 	<p>SERIES 70 - OPTION AS AUTOMOTIVE TERMINAL SINGLE</p> 	<p>SERIES 70 - OPTION AD AUTOMOTIVE TERMINAL DOUBLE</p> 
<p>OPTION Q STRAIN RELIEF CONNECTOR SUPPLIED WITH SJT LEADS</p> 	<p>OPTION S "AN" CONNECTOR</p> 	<p>OPTION Y MAGNETIC YOKE</p> 	<p>OPTION N SPLICE BOX</p> 
<p>OPTION NN SERIES 20 & 30 SPLICE BOX</p>  			



Splice Box Option

Splice Box Option Allows Field Wiring for All Conduit Style Solenoid Valves

An optional 2-3/16 x 1-25/32 x 1-1/2 copper brazed steel splice box housing, offers three standard 7/8 diameter knock-outs providing wiring access from different locations. Solenoid valves coils leads are 6", #18 wire; a ground terminal screw provided inside the box. Optional wall or panel mounting brackets may be specified as required.

Any Series 20, 30, 50 or 70 solenoid valves can be mated to the splice box, which will be UL listed for the use with UL listed valves.

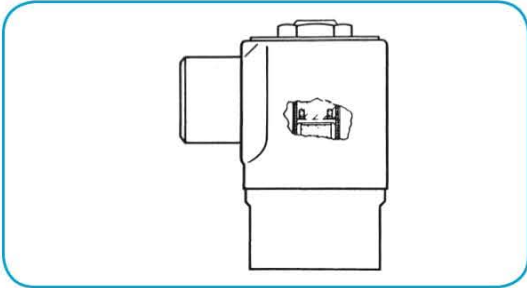


Splice Box Option

Splice Box Option Allows Wiring For Solenoid Valves

Series 20 (stainless steel) or Series 30 (brass) universal splice box options, provides space for multiple wiring hookups and an easy access cover for quick and inexpensive field wiring connections directly to the solenoid valve. Any standard Series 20 or 30 solenoid valve can be mated to the splice box, which is UL listed for the use with UL listed valves.

MISCELLANEOUS OPTIONS

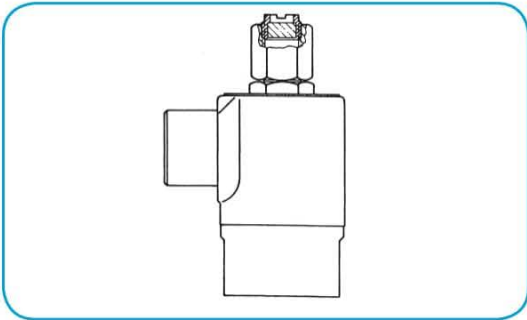


OPTION A – ALUMINUM SHADING RING

Used on valves where media is harmful to standard copper ring, but will not attack aluminum rings.

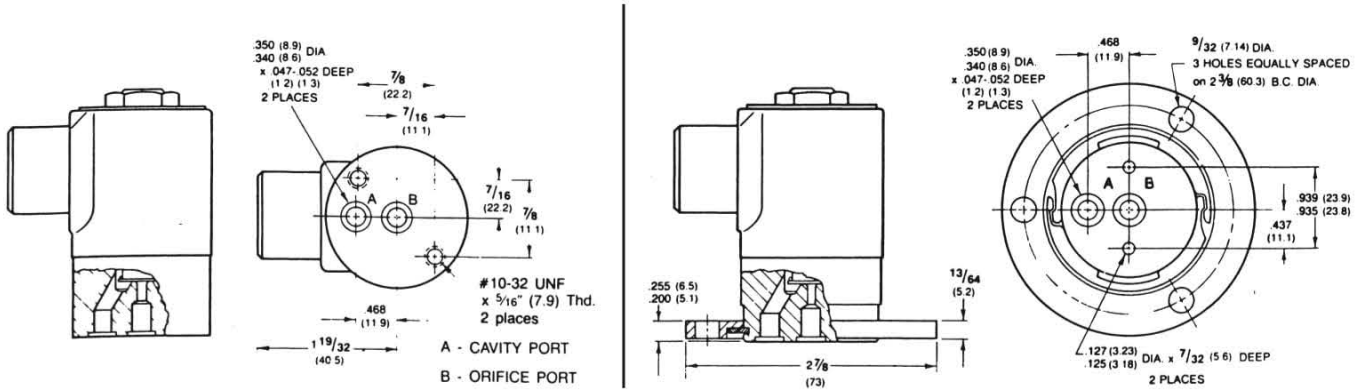
OPTION S – SILVER SHADING RING

Used on valves where media is harmful to standard copper ring, but will not attack silver rings.









OPTION V – BUILT IN MUFFLER




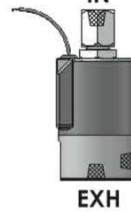


Compact muffler located in valve outlet port to silence excessive noise. Muffler location will vary according to valve type – 3 WNC Valve Muffler in sleeve exhaust port, 2 WNC Valve Muffler in body outlet port, etc.









IN-LINE PORTS

STANDARD  IN OUT	2WNO  IN OUT	3WNC  IN EXH CYL	3WNO  IN EXH CYL	DIRECT CONTROL  N.O. N.C. IN	MULTI-PURPOSE  N.O. COM N.C.
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ORIFICE PORT AT BOTTOM

OPTION R  IN OUT		 EXH IN CYL	 IN EXH CYL	 N.O. IN N.C.	 N.O. COM N.C.
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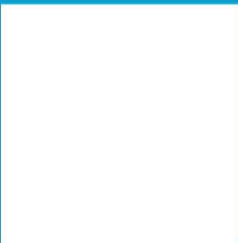

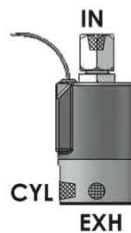


VALVE CAVITY AT BOTTOM

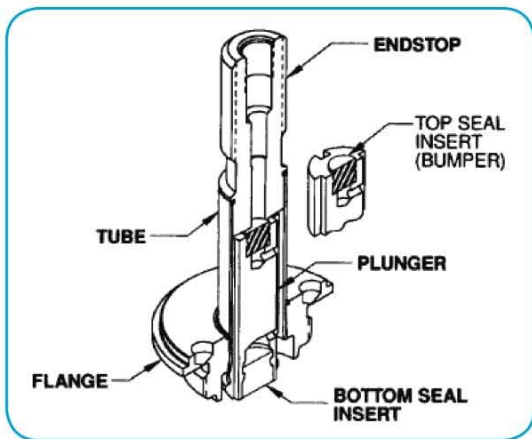
OPTION O*  IN OUT	 OUT IN	 EXH IN CYL	 IN EXH CYL	 N.O. IN N.C.	 N.O. COM N.C.
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ORIFICE PORT 90° LEFT

OPTION M  IN OUT	N/A	 EXH IN CYL	 IN EXH CYL	 N.O. IN N.C.	 N.O. COM N.C.
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ORIFICE PORT 90° RIGHT

OPTION L  IN OUT		 EXH IN CYL	 IN EXH CYL	 N.O. IN N.C.	 N.O. COM N.C.
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3-Way and 2-Way Solenoid Valves for Quiet (No-Click) Operation

Peter Paul Electronics Co., Inc. has developed solenoid valves for use in medical applications such as hospital beds, breathing apparatus, and inflatable mattresses for burn patients in which a bumper is installed for quiet operation.

In normal industrial applications, the click of a solenoid valve is not an issue, but in the quiet of a hospital environment it can be nerve wracking to hear constant clicking as the valve is actuated. Several new plunger and bumper designs used in the 3-way function have a top seal but eliminate the metal-to-metal contact.

One way to “eliminate the click” is to put in a rigid top seal that’s noncompensating and doesn’t move. The top seal contacts the end stop, but no metal contact is made. It requires a unique plunger and uses a special end stop to accommodate it. Many times the pressure ratings are reduced just a bit due to the increased air gap in the valve, affecting magnetic performance. Usually these applications are low-pressure air or vacuum, therefore the reduced rating of the valve is generally not an issue.

Rectified coils are also often specified in medical equipment, either full bridge or half bridge, to eliminate the potential for noise. A valve, which might potentially cause a hum or buzz can be very annoying to a patient, so a full wave rectified unit for AC service is often preferred. A DC unit, not requiring a rectifier, is sometimes used in specific applications.

Also common is a bumper in a 2-way valve, usually just a flat disk with no sealing action. Bumpers may be urethane or filled Teflon or special low cold-flow Teflon, which doesn’t become deformed like virgin Teflon.

Occasionally, a bumper is included in a valve for a non-medical application where long life is critical. With a bit more cost, a Teflon-coated plunger combined with a bumper will provide very long, quiet valve life under many operating conditions.

INLINE FILTERS FEATURE:

- Rugged all-brass construction
- 1/8 and 1/4 NPT sizes
- Available in 20, 40, 60 & 100 Micron ratings

FILTER/STRAINERS FEATURE:

- Rugged all-brass construction
- 1/8 NPT connections
- 43 Micron stainless steel screen
- Easy service without disturbing fluid connections

EXHAUST MUFFLERS FEATURE:

- Rugged all-stainless construction
- Sintered stainless muffler element
- Compact design – low profile
- 1/8 and 1/4 NPT sizes
- Low noise level

I.E., Exhaust noise of 3wnc valve at 100 psi and 200 Cpm reduced from 99dba to 75dba (measured at 3 Feet from muffler)

- Can be used as breather vent filter



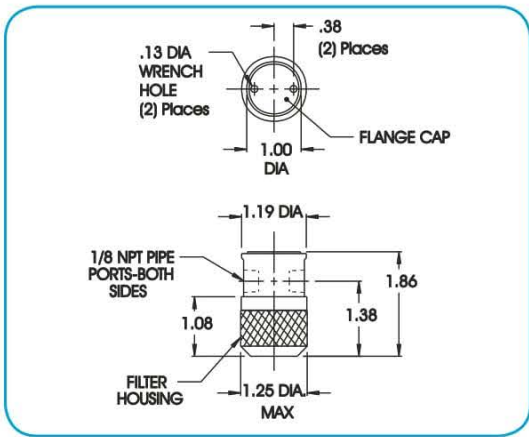
All Peter Paul filters and mufflers are designed for maximum flow with minimum restriction and are compatible with all common media not reacting with brass or stainless steel.

PRODUCT NUMBER CHART

DESCRIPTION	PART NUMBER	PIPE SIZE	MICRON SIZE	MATERIAL
INLINE FILTER	F520-A	1/8" NPT	20	Brass
	F540-A	1/8" NPT	40	Brass
	F560-A	1/8" NPT	60	Brass
	F5100-A	1/8" NPT	100	Brass
	F620-A	1/4" NPT	20	Brass
	F640-A	1/4" NPT	40	Brass
	F660-A	1/4" NPT	60	Brass
	F6100-A	1/4" NPT	100	Brass
FILTER/STRAINER	S543-A	1/8" NPT	43	Brass
	S5140-A	1/8" NPT	140	Brass
MUFFLER	M875-C	1/8" NPT	75	430F SS
	M975-C	1/4" NPT	75	430F SS

EXAMPLE: Inline Filter 1/4" NPT 60 Micron Brass Body No.F660-A

FILTERS AND MUFFLERS



FILTER/STRAINER

The Peter Paul Filter Strainers are designed for the customer who needs efficient filtration of large contaminating particles along with ease of servicing. The 43 Micron screen has a large filter area and can be cleaned without removing the filter body from the system.

SPECIFICATIONS:

Pipe Size: 1/8 NPT CV=.23

Screen Rating: 43 Micron or 140 Micron

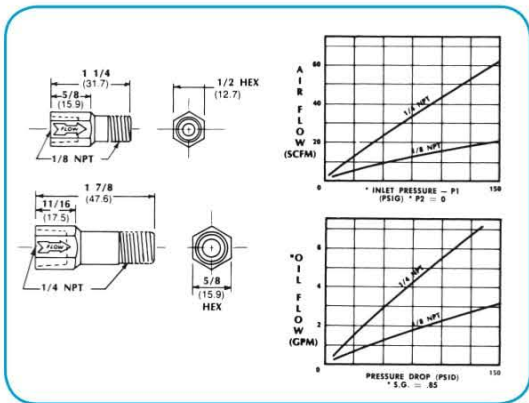
Max. Working Press. Diff.: 300 PSI

Burst Press.: 4000 PSI

Temp.: -40° to +200° F

Materials: Brass Body and Filter Hsg., Stainless Strainer and Flange Cap Buna N Seals

Media: All non-corrosive liquids & gases



INLINE FILTER

The Peter Paul Inline Filters are designed to be a convenient "last chance" filter which provides maximum protection for all fluid power devices. Female/Male pipe threads are provided for ease of installation. Available in four micron ratings.

SPECIFICATIONS:

Pipe Size: 1/8 or 1/4 NPT

Micron Rating: 20,40, 60, or 100

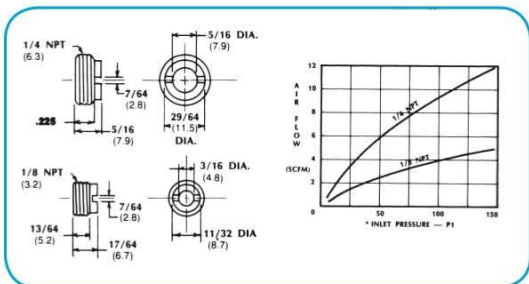
Max. Working Press. Diff.: 300 PSI

Element Burst Press. Diff.: 1500 PSI

Temp.: -40° to +300° F

Materials: Brass Body with sintered Bronze Filter Element

Media: All non-corrosive liquids & gases



EXHAUST MUFFLER

The Peter Paul Exhaust Muffler is designed for use with air cylinders and control valves or wherever excessive noise due to exhausting air is a problem. These mufflers will fit into any 1/8 or 1/4 pipe port and will reduce exhaust noise substantially, yet will not cause excessive restriction.

SPECIFICATIONS:

Pipe Size: 1/8 or 1/4 NPT

Max. Working Press. Diff.: 400 PSI

Element Burst Press. Diff.: 4000 PSI

Temp.: -40° to +300° F

Materials: Stainless Steel Body with Sintered Stainless Element (75 Micron)

Media: Air and most gases

Numbering System Chart -All Solenoid Valves Except Series 58

1st Digit	2nd Digit	3rd Digit	4th Digit	5th Digit	6th Digit	7th Digit	8th Digit	9th Digit
Series Designation	Type	Orifice*	Port Size and Body Material	Body Port Function Options	Housing Options	Coil Options	Voltage	Frequency
2 - Series 20	1 - 2WNO	M - .025	SS BR AL	D - No Option Ports	B - Mounting Bracket	V - Non Molded	We require the full description. Example 120 or 240	In an AC appl. give full details Example 50 HZ or 60 HZ in a DC appl. state DC
3 - Series 30	2 - 2WNC	G - 1/32	1/8 NPT 7 4 2 ^{††}	T - Metering (1/32 - 1/8 orif.)	C - Conduit	M - Molded		
4 - Series 40	3 - 3WNC	H - 3/64	1/8 NPT 8 5 2	F - Metering Series 70 (5/32 - 1/4 orif.) ****	G - Grommet	H - High Temp. 180 °C		
5 - Series 50	4 - 3WNO	J - 1/16	1/4 NPT 9 6 3	Y - Manual Override	J - JIC Housing	P - Potted Coil & Housing		
7 - Series 70	5 - 3WDC	K - 3/32	3/8 NPT 1 10	W - Metered By-Pass	S - AN Connector	B - Non Molded (Series 50)		
8 - Series 80	6 - 3WMP	L - 7/64	1/2 NPT 33 12 11	U - Metered Exhaust	Q - Strain Relief Connector	D - Diode Rectified Coil		
	18 - Direct Lift 2WNO	N - 1/8	1 NPT 23 13	V - Exh. Port Muffled	Y - Yoke	R - Diode Bridge		
	27 - Direct Lift 2WNC	O - 5/32	1 1/2 NPT 24 14	R - Bottom Orifice Port	K - Yoke for Spade Terminal	F - High Temp. Potted		
	28 - Pilot Lift 2WNC	P - 3/16	3/4 NPT 29 19	O - Bottom cavity Port	AS - Single Automotive Housing			
		U - 7/32	2 NPT 26 16	M - 90 ° Left Port	AD - Double Automotive Housing	Additional Options:		
		R - 1/4	2 1/2 NPT 27 17	L - 90 ° Right Port	CC - Conduit with third wire ground	A - Aluminum Shading Ring		
		A - 9/32	3" NPT 28 18	Z - 1/4 NPT sleeve port	N - Splice Box	S - Silver Shading Ring		
		S - 5/16	1/8 Male NPT BR 31	X - 1/8 NPT sleeve port	E - Export Connector	G - Gas†		
		T - 3/8	1/4 Compression 32	UX - 1/8 NPT metered adapter		L - Liquid‡		
		V - 5/64	1/8 NPT Plastic 15	UZ - 1/4 NPT metered adapter		LM - Latching Molded Coil		
		B - 1/2	E - Manifold Mount	Series 50				
		C - 5/8	H - Flange Mount	T - Bottom Metering				
		D - 1"	F - Brass Hex Stud Mount	F - Side Metering				
		E - 1 1/2"	Manifold Body					
		Y - 3/4	N - SS Hex Stud Mount					
		F - 2	Manifold Body					
		W- 3	N - SS Hex Stud Mount					
			Manifold Body					

EXAMPLE

2	3	NK	9	Y	Z	C	M	120	60
Series 20 Valve	3 way Normally Closed	1/8 Inlet 3/32 Exhaust	Stainless Steel Valve Body 1/4" NPT Ports	Manual Override	1/4" NPT	Conduit Housing	Molded Coil	120 Volt Line	AC 60 Hertz

NOTE: "G" Marked prior to the valve number denotes Gang Feeding.

"E" Marked prior to the valve number denotes Explosion Proof.

"H" Marked prior to the valve number denotes High Pressure Valve.

"F" Marked prior to the valve number denotes Filter Valve.

Where numerous options are specified, valves will be marked with 2 numbers to identify valve series and type, followed by specifically assigned numbers.

* For 3 way valves this number will consist of two suffix letters. The first indicates the inlet orifice & the second the exhaust orifice.

** For valves with a combination of two standard body options, this suffix will consist of two letters.

**** In Series 70 -1/16 - 5/16 Orifice.

† For series H high pressure valves only.

†† 2 in Series 15 is 1/8 NPT Aluminum only.

††† Letter K followed by "M" in 7th digit column indicates molded spade terminal coil & yoke.

SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.

Numbering System Chart for Series 58 Solenoid Valves

1st Digit	2nd Digit	3rd Digit	4th Digit	5th Digit	6th Digit	7th Digit	8th Digit
Power Level	Type***	Orifice**	Body Port Options	Function Options	Coil Options	Voltage	Frequency
Blank: Standard 3.5 watt rating	581 - 2WNO	A - .6MM	15 Manifold Mount	D - No Options	GM - Molded with Lead Wire	Full Description Required	For A.C. Applications, give full details
	582 - 2WNC	F - .8MM	16 Manifold Mount with Manual Override	P - 10-32 Sleeve Adapter	E - Molded with Micro DIN		
L - Low Watt (.9 watt) version (DC only)	583 - 3WNC	M - 1.0MM	19 10-32 Ports plastic			Example: 24 or 120 Volts	Example: 60 or 50 Hertz
	584 - 3WNO	W - 1.2MM	21 10-32 Ports S.S. (430F)				
	585 - 3WDC (Directional Control)	Y - 1.4MM (Metal body only)	22 10-32 Ports Brass				
	586 - 3WMP (Multi-Purpose)	J - 1.6MM (Metal body only)	23 10-32 Ports S.S. (303)				
	add O-Operator	K - 2.2MM (Metal body only)	24 10-32 Spud Mount S.S. (430F)				
			25 10-32 Spud Mount Brass				
			26 10-32 Spud Mount S.S (303)				
			27 M5 Ports S.S. (430F)				
		28 M5 Ports Brass					
		29 M5 Ports S.S. (303)					
		D-no option					

EXAMPLE

58	3	AF	16	P	GM	120	60
Series 58 Valve	3-Way Normally Closed	.6MM Inlet .8MM Exhaust Orifice	Manifold Mount with Manual Override	10-32 Sleeve Adapter	Lead Wire	120 Volt Line	A.C. 60 Hertz

NOTE: "L" Marked Prior to numbers denots Low Watt

* For 3 way valves, this digit will consist of two suffix letters. First suffix indicates inlet orifice; second indicates exhaust orifice.
SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.

