

PETER PAUL

SERIES 20 MODEL H23 & EH23 & H24 HIGH PRESSURE IMPACT TYPE DUAL OPERATOR SOLENOID VALVE

3-way media control at super-high pressure ratings



EH23



Series 20-Model H24 with single solenoid

3-Way Normally Open
Coil Voltage: DC Only
CV Factor Inlet: .010
CV Factor Exhaust: .024
Maximum Operating Pressure Differential:
1000 PSI (Gas or Liquid)
Orifice Size: .6 mm x 1/32"

Using the heart of the highly successful model H-22 valve, Peter Paul Electronics introduces a new 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.

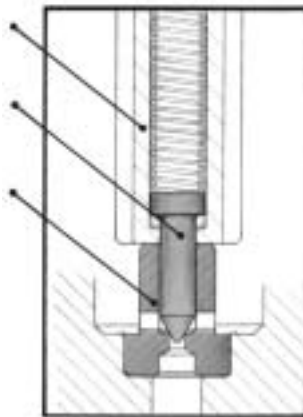
To function as a 3-Way NC valve, operators must be alternately energized and de-energized. Pressure applied to "IN" Port must *always* be equal to or greater than the pressure in "CYL" Port

+EXCLUSIVE FEATURES INCLUDE:

- A precision stainless steel PLUNGER that supplies the necessary impact force to energize valve.
- A Kel-F® PIN* which functions as a sealing element, that is carefully machined for maximum concentricity and fine finish.
- The ORIFICE GUIDE is one piece, for near perfect alignment. This means bubble-tight sealing from low pressures right up to maximum pressure* rating with the bonus of longer life.
- All internal connections are contained in the valve body. No need for sleeve adaptors or connecting tubes. All port connections are in the valve body.

* Other pin materials available. consult factory

PATENTED



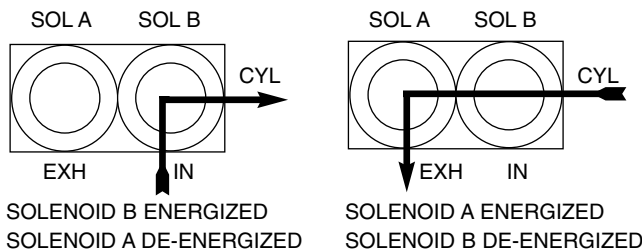
OTHER FEATURES INCLUDE:

- Simple construction...
- Only 2 moving parts per operator
- Available in both standard and explosion proof construction
- 1/4 NPT ports

PRINCIPLES OF OPERATION

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 pin shoulder. Upon contact it imparts considerable force on the pin causing it to lift off the seat. A return spring provides the return force, directly on the pin, to seal the orifice when the coil is de-energized.

Here is how it's done...



NOTE: ALL PORTS OPEN WHEN BOTH SOLENOIDS ENERGIZED
ALL PORTS CLOSED WHEN BOTH SOLENOIDS DE-ENERGIZED

OPTIONS AVAILABLE: – 3 WAY HI-PRESSURE VALVE

HOUSING OPTIONS see page 78

*STRAIN RELIEF CONNECTOR

* "AN" CONNECTOR

COIL OPTIONS – see page 79

MOLDED COIL

POTTED COIL & HOUSING

HIGH TEMPERATURE MOLDED COIL

MISCELLANEOUS OPTIONS – see page 76

SILVER SHADING RING

ALUMINUM SHADING RING

*Not available with explosion proof housing

MODEL EH23-EXPLOSION PROOF VERSION is U.L. Listed and CSA Certified for hazardous locations—Class I, Groups C & D; Class II, Groups E, F, AND G - Consult factory.

Note: Availability of certain options or combination of options may vary with quantity of units ordered- Consult representative or factory.



GAS PRESSURE RATINGS		ORIFICE		CV	VALVE NUMBER		LIQUID PRESSURE RATINGS		ORIFICE		CV	VALVE NUMBER	
AC	DC	SIZE	FACTOR	STANDARD VALVE	EXP. PROOF VALVE	AC	DC	SIZE	FACTOR	STANDARD VALVE	EXP. PROOF VALVE		
3000	3000	1/32	.022	H23GG19DCV	EH23GG19DCCM	3000	3000	1/32	.022	H23GG19DCV	EH23GG19DCCM		
2500	1500	3/64	.041	H23HH19DCVG	EH23HH19DCCMG	1500	1500	3/64	.050	H23HH19DCVL	EH23HH19DCCML		
1750	500	1/16	.065	H23JJ19DCVG	EH23JJ19DCCMG	1000	500	1/16	.070	H23JJ19DCVL	EH23JJ19DCCML		
650	100	3/32	.100	H23KK19DCVG	EH23KK19DCCMG	300	100	3/32	.130	H23KK19DCVL	EH23KK19DCCML		

†Availability of certain options or combination of options may vary with quantity of units ordered. Consult representative or factory.

Note: When ordering, add voltage and frequency to complete valve number (Example H23GG19DCV—120/60)

SPECIFICATIONS

SERIES 20—MODEL H23

Three-way normally closed valve for high pressure applications. Valve must be mounted within 30° of vertical.

OPERATING CONDITIONS

†**Media:** Air and other non-corrosive gases, water and oil.

Valve Temperature Range: 0°F (-18°C) to a maximum of 221°F (105°C) including coil heat rise, ambient and media temperatures. Other temperature ranges available on request—along with specific application parameter information specified.

Burst Pressure: 5000 PSI

Maximum Operating Pressure Differential: to 3000 PSI

†To insure trouble free operation, filtration down to 60 microns or less is recommended.

Listings: Valves are U.L. 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 A,B,C,D,E,F, and G.

ELECTRICAL CHARACTERISTICS

Coil Voltage: 5 to 825 VAC, 50-60 Hz. 1.8 to 265 VDC

Nominal Power: Wattage Per Operator

A.C. 7.3 watts

D.C. 9.5 watts

Coil Construction: Standard Valve—molded and non-molded
Explosion Proof valve—molded

Typical Response Time on Air: 4-16 milliseconds

MECHANICAL CHARACTERISTICS

Body: 300 Series Stainless Steel

†Aluminum Alloy-option available

Orifice Diameter: 1/32" - 3/32"

Porting: 1/4" NPT

Housing: Standard & Explosion Proof valves—1/2" NPT conduit

