

**PETER PAUL**

# SERIES 20 Magnetic Latching Valve

Meet today's demands for economy of space and energy consumption.

## APPLICATION:

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 applications of power, is undesirable such as in medical and chemical analyzers, etc.

## SPECIFICATIONS—

### OPERATING CONDITIONS

**Media:** 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 - Consult representative of factory.

**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. Consult factory for specifications.

**Maximum Operating Pressure Differentials:** See catalog listings

**Burst Pressure:** 5000 PSI

**Leakage:** Bubble tight for standard valves

**Vacuum:** To 5 Microns - Consult factory

### ELECTRICAL CHARACTERISTICS

**Coil Voltage:** 6 to 60 VDC. All standard voltages (U.S. & Export) carried in stock. Special voltages readily produced on order.

**Nominal Power:** 10 watts

**Typical Response Time on Air:** Approximate 30 millisecond pulse to energize  
Approximate 30 millisecond pulse to de-energize

**Operating Speed:** Up to 60 CPM

**Duty Cycle:** Continuous

### MECHANICAL CHARACTERISTICS

**Material:** All interior parts are stainless steel

**Orifice Diameter:** See catalog listings

**Porting:** See catalog listings

**Housing:** European style DIN COIL for your convenience we have the female DIN style mating connector No. 20-198\*\* available for an additional fee.

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

**Valve Weight:** 1.2 lbs lbs average

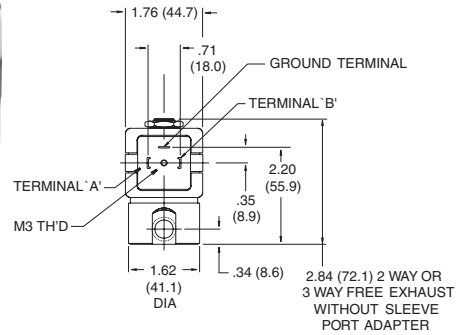
**Repair Packs:** Consult Factory

Metering, bottom orifice or cavity porting, manifold mount, built in muffler, universal mounting bracker, brass body.

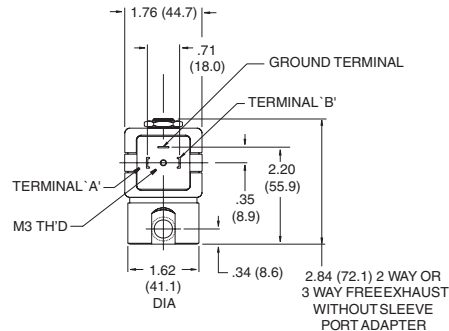
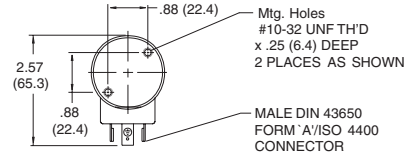
FOR FLOW CHARTS SEE PAGES 95-97

### SOLENOID VALVE OPERATORS

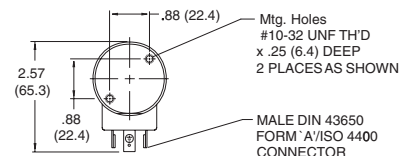
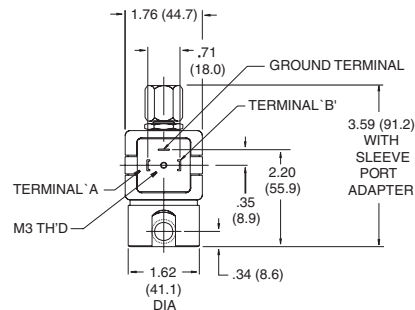
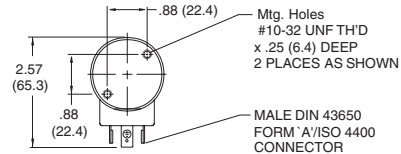
A complete line of valve operators for O.E.M. applications are offered for those who wish to incorporate them in their own product line. Full technical information and details are available from Peter Paul.



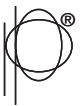
**2-Way Normally Closed**



**3-Way Normally Closed Exhaust to Atmosphere**



**3-Way Normally Closed Piped Exhaust**



# SOLENOID VALVES . . .

MODEL TYPE	FLOW CONFIGURATION	Valve No: 1/8 NPT	Valve No: 1/4 NPT	Max Operating Pressure Differential	Orifice Size		CV Factor			
				DC	Inlet	Exhaust	Inlet	Exhaust		
<b>Model 21</b> 2 Way Normally Open	DE-ENERGIZED ENERGIZED 	21G7XELM	21G9ZELM	400		1/32		.024		
		21H7XELM	21H9ZELM	235		3/64		.053		
		21J7XELM	21J9ZELM	150		1/16		.095		
		21K7XELM	21K9ZELM	100		3/32		.156		
<b>Model 22</b> 2 Way Normally Closed	DE-ENERGIZED ENERGIZED 	22G7DELM	22G9DELM	500	1/32		.024			
		22H7DELM	22H9DELM	250	3/64		.052			
		22J7DELM	22J9DELM	200	1/16		.095			
		22K7DELM	22K9DELM	125	3/32		.156			
		22N7DELM	22N9DELM	100	1/8		.214			
		22O7DELM	22O9DELM	50	5/32		.404			
		22P7DELM	22P9DELM	25	3/16		.500			
		22R7DELM	22R9DELM	5	1/4		.700			
		22S9DELM	22S9DELM		5/16		1.000			
		<b>Model 23</b> 3 Way Normally Closed Exhaust to Atmosphere	DE-ENERGIZED ENERGIZED 	23GG7DELM	23GG9DELM	400	1/32	1/32	.024	.024
23HJ7DELM	23HJ9DELM			150	3/64	1/16	.052	.095		
23JJ7DELM	23JJ9DELM			100	1/16	1/16	.095	.095		
23JK7DELM	23JK9DELM			100	1/16	3/32	.095	.156		
23KK7DELM	23KK9DELM			75	3/32	3/32	.156	.156		
23NK7DELM	23NK9DELM			50	1/8	3/32	.214	.156		
23PK7DELM	23PK9DELM			20	3/16	3/32	.500	.156		
23RK7DELM	23RK9DELM				1/4	3/32	.700	.156		
<b>Model 23</b> 3 Way Normally Closed Piped Exhaust	DE-ENERGIZED ENERGIZED 			23GG7XELM	23GG9ZELM	400	1/32	1/32	.024	.024
				23HJ7XELM	23HJ9ZELM	150	3/64	1/16	.052	.095
		23JJ7XELM	23JJ9ZELM	100	1/16	1/16	.095	.095		
		23JK7XELM	23JK9ZELM	100	1/16	3/32	.095	.156		
		23KK7XELM	23KK9ZELM	75	3/32	3/32	.156	.156		
		23NK7XELM	23NK9ZELM	50	1/8	3/32	.214	.156		
		23PK7XELM	23PK9ZELM	20	3/16	3/32	.500	.156		
		23RK7XELM	23RK9ZELM		1/4	3/32	.700	.156		
		<b>Model 24</b> 3 Way Normally Open	DE-ENERGIZED ENERGIZED 	24GG7XELM	24GG9ZELM	400	1/32	1/32	.024	.024
				24HJ7XELM	24HJ9ZELM	150	3/64	1/16	.052	.095
24JJ7XELM	24JJ9ZELM			100	1/16	1/16	.095	.095		
24JK7XELM	24JK9ZELM			100	1/16	3/32	.095	.156		
24JN7XELM	24JN9ZELM			100	1/16	1/8	.095	.214		
24KN7XELM	24KN9ZELM			75	3/32	1/8	.156	.214		
<b>Model 25</b> 3 Way Directional Control	DE-ENERGIZED ENERGIZED 			25GG7XELM	25GG9ZELM	500	1/32*	1/32	.024*	.024
		25HH7XELM	25HH9ZELM	235	3/64*	3/64	.052*	.052		
		25JH7XELM	25JH9ZELM	200	1/16*	3/64	.095*	.052		
		25JJ7XELM	25JJ9ZELM	150	1/16*	1/16	.095*	.095		
		25KK7XELM	25KK9ZELM	100	3/32*	3/32	.156*	.156		
		25NK7XELM	25NK9ZELM	100	1/8*	3/32	.214*	.156		
		<b>Model 26</b> 3 Way Multi- Purpose	DE-ENERGIZED ENERGIZED 	26GG7XELM	26GG9ZELM	400	1/32*	1/32	.024*	.024
26HH7XELM	26HH9ZELM			150	3/64*	3/64	.052*	.052		
26JJ7XELM	26JJ9ZELM			100	1/16*	1/16	.095*	.095		
26KK7XELM	26KK9ZELM			75	3/32*	3/32	.156*	.156		

Extended pressure rating available. Consult factory.