POPPET-TYPE SOLENOID VALVE ENCODING PRINCIPLE

EP - 08W - 2A - 01 - N - 05

(X = 08W - 2A, Y = 01, Z = N)

Type	
EP	Poppet-type Solenoid Valve
PEP	Proportional Poppet-type Solenoid Valve
EPS	Poppet-type Solenoid Valve with Position Switch

Port Number
2
3

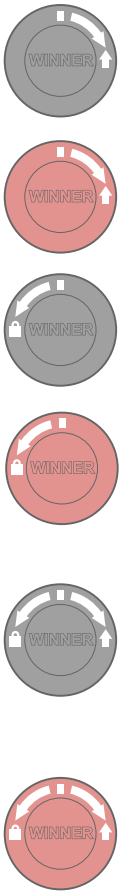
Cavity	
E Series	
19E	3/4"-16UNF
76E	7/8"-14UNF
17E	G 3/4"
21E	G 1"
04E	G 1-1/4"
W Series	
06W	9/16"-18UNF
08W	3/4"-16UNF
10W	7/8"-14UNF
12W	1-1/16"-12UN
16W	1-5/16"-12UN
20W	1-5/8"-12UN
12WA	1-1/16"-12UN
A Series	
162A	M16 x 1.5
13A	M20 x 1.5
5A	1"-14UNS
16A	M36 x 2
18A	M48 x 2
11A	M20 x 1.5
M Series (Metric)	
20M	M20 x 1.5
20MB	M20 x 1.5
22M	M22 x 1.5
22ML	M22 x 1.5
27M	M27 x 2
33MC	M33 x 2
35MV	M35 x 1.5
42M	M42 x 2

Coil Diameter	
A	Coil S8, Ø12.7 × 38.5L
B	Coil S13, Ø16 x 36.4L
C	Coil S6, Ø 16 x 50.2L
D	Coil S4, Ø19 x 49.3L
E	Explosion-proof coil, Ø20.5 x 86L
G	Coil S3, Ø23 x 50.4L
H	Coil S9, Ø12.7 x 37L, 14.7W
K	Explosion-proof coil Ø22 x 54.6L

*Coil type refer to page 9 and 10

*Configuration Y refer to page 4 to 8

Options	
N	Non-adjustable
M	Screw-out knob style
P	Push style manual override
T	Push twist style manual override
L	Pull style (cable operated)
H	Pull style (hand operated)
R	Manual override knob (clockwise operation, auto return) Color: black (standard)
RD	Manual override knob (clockwise operation, auto return) Color: red (optional)
RA	Manual override knob (counterclockwise operation, auto return) Color: black (standard)
RE	Manual override knob (counterclockwise operation, auto return) Color: red (optional)
RB	Manual override knob (clockwise operation, auto return; counterclockwise operation, auto return) Color: black (standard)
RF	Manual override knob (clockwise operation, auto return; counterclockwise operation, auto return) Color: red (optional)



Action & Flow	
0	Standard
8	Fast-acting
9	High-flow
⋮	⋮

* Last digit is Winner structure code

Explosion-proof Solenoid Valve Encoding Principle

(X, Y, Z)

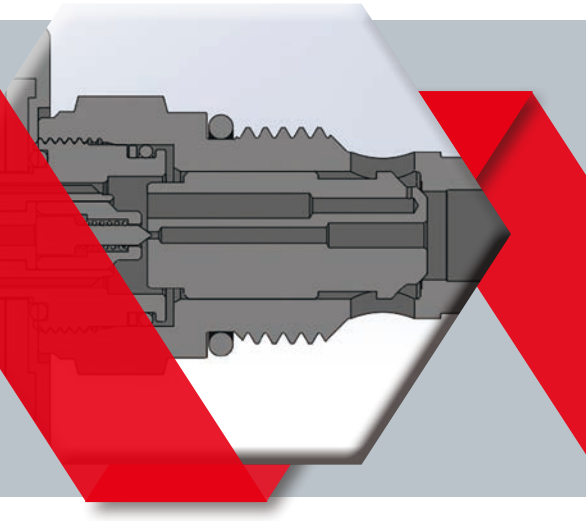
EP-16W-2E-31-N-D-95

Coil Voltage	
D	24V DC
E	12V DC

Structure	
(Blank)	Standard
95	High-flow

Poppet Solenoid Valve Types

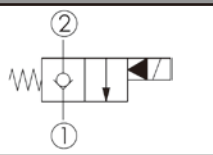
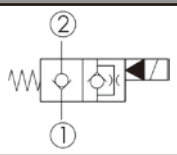
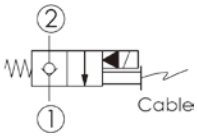
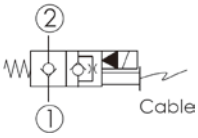
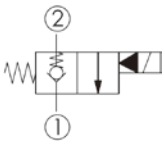
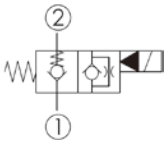
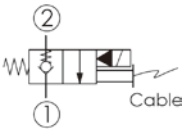
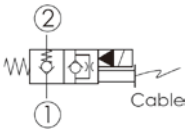
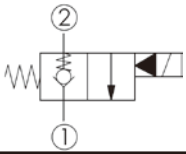
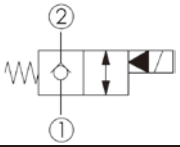
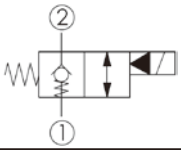
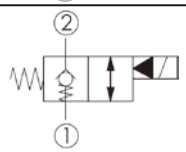
Symbols and Operations

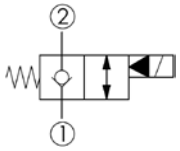
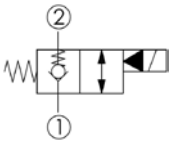
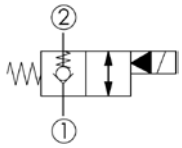
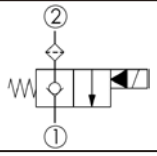
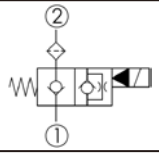
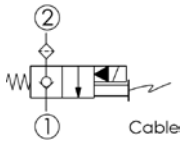
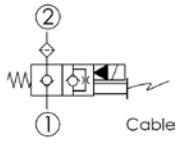
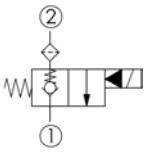
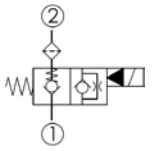
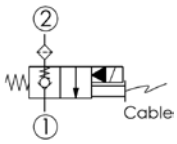
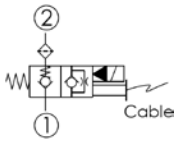
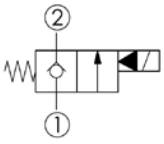
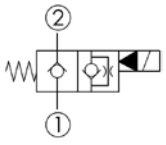
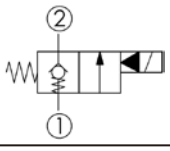
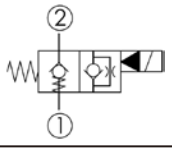
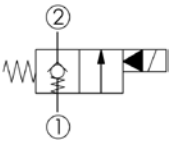
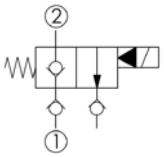
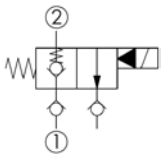


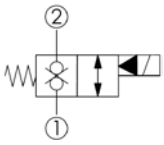
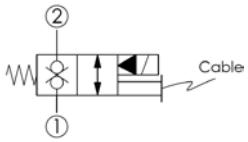
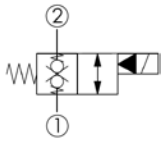
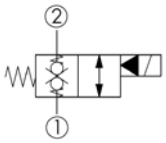
1. Normally Closed, Pilot-Operated Poppet Valves

Designed for high-pressure blocking and load-holding applications. When de-energized, the valve behaves like a check valve, allowing free flow in one direction and blocking reverse flow (config. Y=11/31 blocks both). When energized, the poppet lifts to open one or both flow paths.

※ For Configuration X and Z, please refer to page 3.

Configuration Y	Operation	Symbol(s)	Type
01	Port 2 Blocked, Flow Port 2 to Port 1 (Monodirectional Flow) when Energized (Ordering code e.g., EP-08W-[X]-01-[Z]-05)	 	Standard
		 	Standard, Pull Style
		 	Fast-Acting
		 	Fast-Acting, Pull Style
			High-Flow (Up to 480 LPM)
03	Port 1 Blocked, Bidirectional Flow when Energized (Ordering code e.g., EP-08W-[X]-03-[Z]-05)		Standard
			Fast-Acting
			High-Flow (Up to 480 LPM)

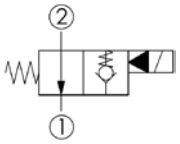
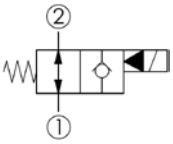
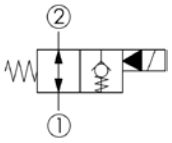
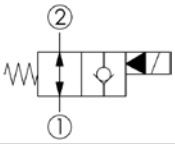
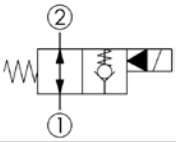
Configuration Y	Operation	Symbol(s)	Type
05	Port 2 Blocked, Bidirectional Flow when Energized (Ordering code e.g., EP-08W-X-05-Z-05)		Standard
			Fast-Acting
			High-Flow (Up to 480 LPM)
07	With Filter. Port 2 Blocked, Flow Port 2 to Port 1 (Monodirectional Flow) when Energized (Ordering code e.g., EP-08W-X-07-Z-05)	 	Standard
		 	Standard, Pull Style
		 	Fast-Acting
		 	Fast-Acting, Pull Style
09	Port 1 Blocked, Flow Port 1 to Port 2 (Monodirectional Flow) when Energized (Ordering code e.g., EP-08W-X-09-Z-05)	 	Standard
		 	Fast-Acting
			High-Flow (Up to 480 LPM)
11	Bidirectional Flow Blocked, Flow Port 2 to Port 1 (Monodirectional Flow) when Energized (Ordering code e.g., EP-19E-X-11-Z-05)		Standard
			Fast-Acting

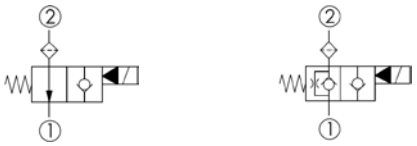
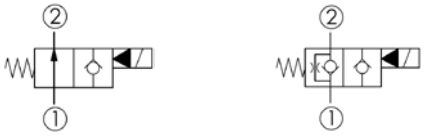
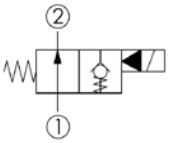
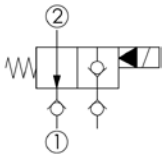
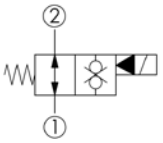
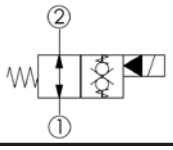
Configuration Y	Operation	Symbol(s)	Type
31	Double-Lock, Bidirectional Flow when Energized (Ordering code e.g., EP-08W-X-31-Z-05)		Standard
			Standard, Pull Style
			Fast-Acting
			High-Flow (Up to 480 LPM)

2. Normally Open, Pilot-Operated Poppet Valves

Used for high-pressure load holding with a normally open configuration. When energized, it functions like a check valve, allowing free flow in one direction and blocking reverse flow (config. Y=12/32 blocks both). Energization lifts the poppet to open one or both flow directions.

※ For Configuration X and Z, please refer to page 3.

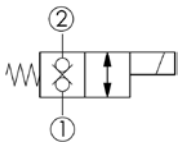
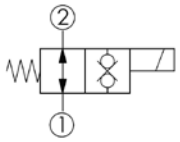
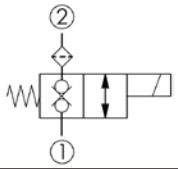
Configuration Y	Operation	Symbol(s)	Type
02	Flow Port 2 to Port 1 (Monodirectional Flow), Port 2 Blocked when Energized (Ordering code e.g., EP-08W-X-02-Z-05)		Standard
			High-Flow (Up to 480 LPM)
04	Bidirectional Flow, Port 1 Blocked when Energized (Ordering code e.g., EP-08W-X-04-Z-05)		Standard
			High-Flow (Up to 480 LPM)
06	Bidirectional Flow, Port 2 Blocked when Energized (Ordering code e.g., EP-08W-X-06-Z-05)		Standard
			High-Flow (Up to 480 LPM)

Configuration Y	Operation	Symbol(s)	Type
08	With Filter. Flow Port 2 to Port 1 (Monodirectional Flow), Port 2 Blocked when Energized (Ordering code e.g., EP-08W-[X]-08-[Z]-05)		Standard
10	Flow Port 1 to Port 2 (Monodirectional Flow), Port 1 Blocked when Energized (Ordering code e.g., EP-08W-[X]-10-[Z]-05)		Standard
			High-Flow (Up to 480 LPM)
12	Flow Port 2 to Port 1 (Monodirectional Flow), Bidirectional Flow when Energized (Ordering code e.g., EP-08W-[X]-12-[Z]-05)		Standard
32	Bidirectional Flow, Double-Lock when Energized (Ordering code e.g., EP-08W-[X]-32-[Z]-05)		Standard
			High-Flow (Up to 480 LPM)

3. 2/2 Direct-Acting Poppet Valves

Compact, fast-response 2-way valves available in NC or NO versions. When de-energized, both directions are blocked; when energized, flow is allowed in both directions. Designed for extremely low leakage and precise control, with limited flow capacity compared to standard poppet valves.

※ For Configuration X and Z, please refer to page 3.

Configuration Y	Operation	Symbol(s)	Type
51	Double-Lock, Bidirectional Flow when Energized, Fast-Acting (Ordering code e.g., EP-08W-[X]-51-[Z]-04)		Standard
52	Bidirectional Flow, Double-Lock when Energized, Fast-Acting (Ordering code e.g., EP-08W-[X]-52-[Z]-04)		Standard
57	With Filter. Double-Lock, Bidirectional Flow when Energized, Fast-Acting (Ordering code e.g., EP-08W-[X]-57-[Z]-04)		Standard