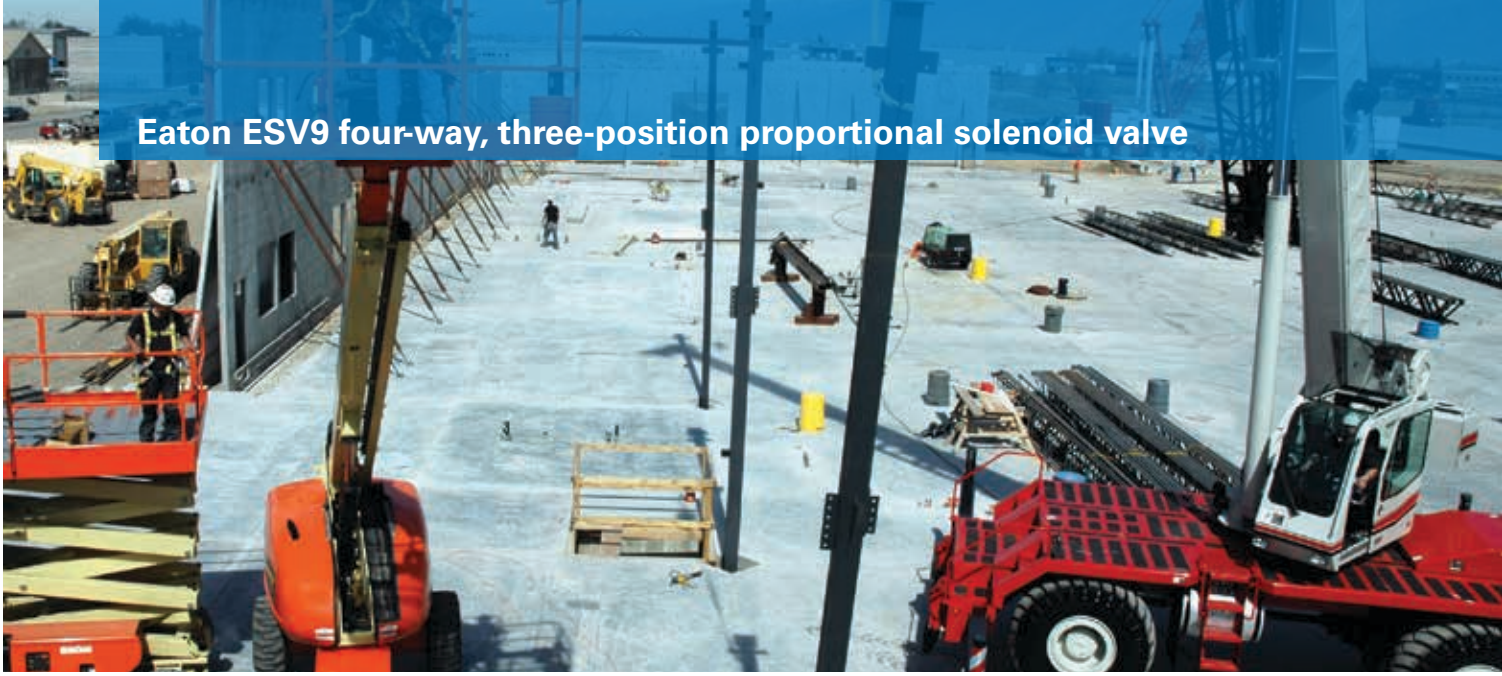
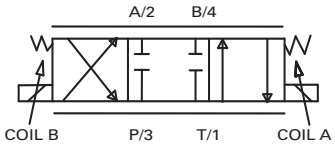


Eaton ESV9 four-way, three-position proportional solenoid valve

Reliable, precise proportional control

Eaton ESV9 offers precise proportional control with best-in-class hysteresis.



Other spool options available

With an impressively broad portfolio of screw-in cartridge valves (SiCVs), Eaton gives you more options and more ways to solve customer challenges. Our standard SiCVs offer a wide range of pressure and flow rates, and options that stand up to extreme environments. As customers are increasingly transitioning from on/off control to proportional control, Eaton has made investments to win in this market with the new ESV9 four-way, three-position proportional solenoid valve.

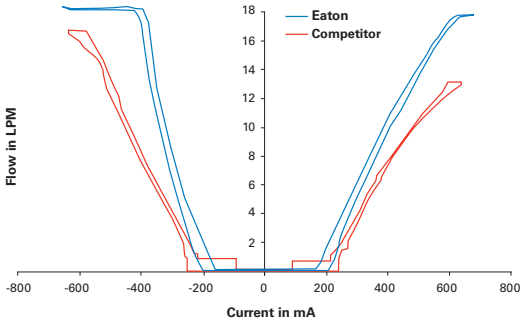
Eaton's ESV9 four-way, three-position proportional valve is available in both size 8 and size 10 options. With 7% hysteresis, ESV9 is best-in-class for precise proportional control in a variety of applications.

Features

- Industry standard cavity tool
- IP69K ToughCoils™ compatible
- Highly engineered components
- Designed for optimized linearity and hysteresis
- Compact design with low pressure drop
- Optional manual override

Benefits

- Control of the spool and optimizing the flow forces is critical to providing stable, even and controllable proportional control
- Optimized jet controls the metering of flow to the spool
- Dual spring design: ESV9 valve utilizes two springs to control metering of the spool while the competition uses one
- Advanced engineering: 30+ design cases with full CFD analysis resulting in optimized geometry (hysteresis chart pictured below)



Ratings and specifications	Size 8	Size 10
Performance data is typical with fluid at 21,8 cST (105 SUS) and 49°C (120°F)		
Typical application pressure:		
Operating pressure port 1 (T)	210 bar (3045 psi)	250 bar (3625 psi)
Operating pressure port 2, 3 & 4 (A, P, & B)	250 bar (3625 psi)	250 bar (3625 psi)
Rated flow	11.0 l/min (2.9 USgpm)	22 l/min (5.8 USgpm)
Internal leakage	165 cc/min (10 in3/min) max.@ 210 bar (3045 psi)	250 cc/min (15 in3/min) max.@ 210 bar (3045 psi)
Temperature range	-40 to 120°C	-40 to 120°C
Cavity	C-8-4	C-10-4
Rated burst pressure	750 bar (10,600 psi) per NFPA/T2-6-1 R2-2000	750 bar (10,600 psi) per NFPA/ T2-6-1 R2-2000
Maximum hysteresis	7%	7%

Powering Business Worldwide

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