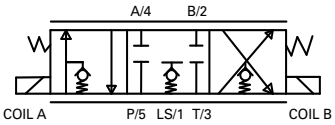
Eaton ESVL9 five-way, three-position proportional solenoid valve

Compact, precise proportional control

Eaton ESVL9-10 with integrated check valve offers precise proportional control in a compact package.



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 ESVL9 five-way, three-position proportional solenoid valve.

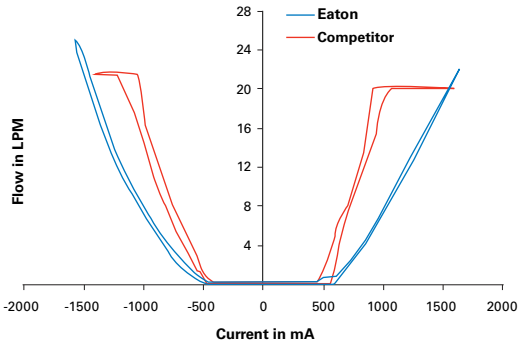
Eaton's ESVL9 valve is available in size 10, and features a patent-pending integrated load sense check valve. By integrating the external check valve in the main cartridge, ESVL9 valves enable a 21% manifold size reduction compared to the external check valves available on five-ported directional control valves today.

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
- Integrated LS check feature in std. cavity

Benefits

- Optimized flow forces: critical to control of the spool and providing stable, even and controllable proportional control
- Optimized jet: controls the metering of flow to the spool
- Dual spring design: ESVL9 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

Performance data is typical with fluid at 21,8 cSt (105 SUS) and 49°C (120°F)

Typical application pressure (all ports)	250 bar (3,600 psi)
Max. flow	23 L/min (6 gal/min)
Internal leakage	250 cc3/min (15 in3/min) max.@ 210 bar (3,000 psi)
Temperature range	-40°C to 120°C
Cavity	C-10-5S
Rated burst pressure	750 bar (10,600 psi) per NFPA/T2-6-1 R2-2000

Powering Business Worldwide

© 2018 Eaton
All Rights Reserved
Printed in USA
April 2018

Eaton
Hydraulics Group USA
14615 Lone Oak Road
Eden Prairie, MN 55344
USA
Tel: 952-937-9800
Fax: 952-294-7722
Eaton.com