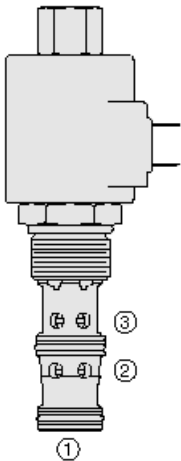




Overview



Description

This is a pilot operated spool type, proportional pressure reducing/relieving valve. It is intended for use in mineral based or synthetic (with lubricating properties) hydraulic fluids

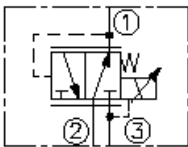
Operation

The regulated pressure is proportional to the input electrical current in the pressure ranges shown below. Maximum operating pressure port 1 and port 2: 4000 psi [275,8 bar] maximum tank pressure port 3: 1000 psi [68,9 bar] (tank pressure is additive to regulated pressure)

Features

- o 12 and 24 volt coils standard.
- o Standard waterproof coils or optional waterproof E-Coils.

Symbol



Ratings

Pressure Ratings

Reduced pressure range	6.9 to 207 bar (100 to 3000 psi)	- Note: A
	6.9 to 172 bar (100 to 2500 psi)	- Note: B
	6.9 to 138 bar (100 to 2000 psi)	- Note: C

Flow Ratings

Maximum pilot flow	0.42 lpm (0.11 gpm)	- Note: With maximum control current and with inlet pressure of
	241 bar (3500 psi)	- Note: At regulated flow
	3.8 lpm (1 gpm)	

Temperature Ratings

Operating fluid temperature	-40 to 100 °C (-40 to 212 °C)	- Note: With buna N seals
	-26 to 204 °C (-15 to 400 °C)	- Note: With viton seals
	-54 to 107 °C (-65 to 225 °C)	- Note: Less than 5% performance degradation over 1 million cycles (based on simulated test at with polyurethane seals 37.8 lpm (10 gpm) flow and maximum pressure setting)

Operating Parameters

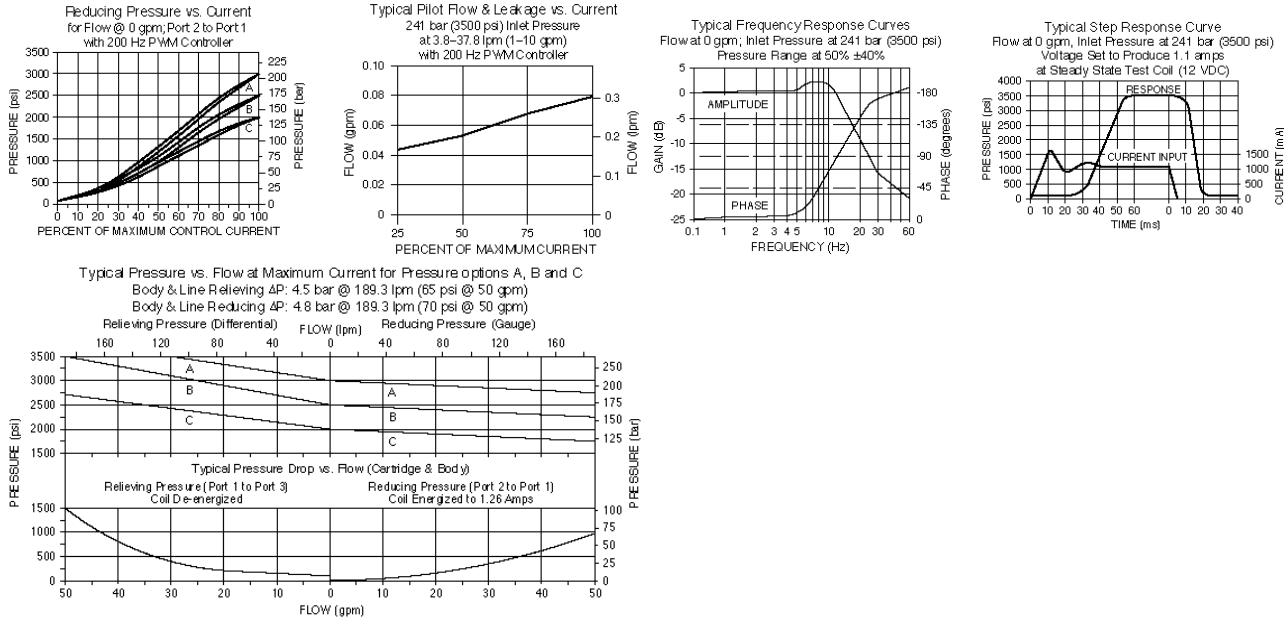
Recommended system filtration	10 µm	- Note: Or better
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Electrical Parameters

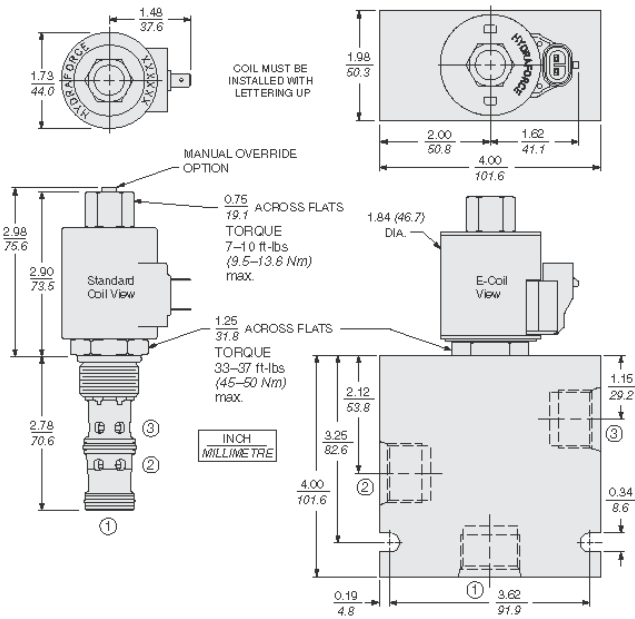
Maximum control current	1.04 A	- Note: D-series coil 12 Vdc
	0.96 A	- Note: D-series coil 12 Vdc
	0.53 A	- Note: D-series coil 24 Vdc
	0.50 A	- Note: D-series coil 24 Vdc
	1.29 A	- Note: E-series coil 12 Vdc
	1.22 A	- Note: E-series coil 12 Vdc
	0.70 A	- Note: E-series coil 24 Vdc
	0.66 A	- Note: E-series coil 24 Vdc
Valve inductance	167 mH	- Note: D-series coil 12 Vdc
	624 mH	- Note: D-series coil 24 Vdc
	159 mH	- Note: E-series coil 12 Vdc
	550 mH	- Note: E-series coil 24 Vdc



Performance



Dimensions



Materials

Materials

Cartridge: Weight: 0.30 kg (0.66 lb); Steel with hardened work surfaces. Zinc-plated exposed surfaces; Buna N O-rings and polyester elastomer back-ups standard. Polyurethane seals with Fluorocarbon backup recommended for operating pressures over 240 bar (3500 psi).

Standard Ported Body: Weight: 0.23 kg (0.50 lb); Anodized high-strength 6061 T6 aluminum alloy, rated to 207 bar (3000 psi); Ductile iron bodies available; dimensions may differ.

Standard D-Coil: Weight each: 0.32 kg (0.7 lb); Unitized thermoplastic encapsulated, Class H high temperature magnet wire.

E-Coil: Weight: 0.41 kg (0.9 lb); Perfect wound, fully encapsulated with rugged external metal shell; Rated up to IP69K with integral connectors.

Order Code

POSITION	CODE	DESCRIPTION
	TS12-36DE-H-J-L	
D		Regulating Pressure Range



POSITION	CODE	DESCRIPTION
D	A	6.9 to 206.8 bar (100 to 3000 psi) Pressure Range
D	B	6.9 to 172.4 bar (100 to 2500 psi) Pressure Range
D	C	6.9 to 138.0 bar (100 to 2000 psi) Pressure Range
E		Manual Override
E	BLANK	NONE
E	M	Minimum Regulated Pressure Override, 3/16" Internal Hex
H		Line Body
H	0	No Body
H	8T	Aluminum SAE 8
H	10T	Aluminum SAE 10
H	12T	Aluminum SAE 12
H	12TD	Ductile Iron SAE 12
H	6B	Aluminum BSPP 3/4" (6)
J		Seal
J	N	Buna-N
J	V	Fluorocarbon
J	P	Polyurethane
J	U	PPDI Urethane
L		Coil
L	0	No Coil
L	10DG	10 VDC, D-Coil, DIN 43650
L	10DL	10 VDC, D-Coil, Dual Lead Wires
L	10DS	10 VDC, D-Coil, Dual Spade
L	10EL	10 VDC, E-Coil, Dual Lead Wires
L	10ER	10 VDC, E-Coil, Deutsch
L	12DG	12 VDC, D-Coil, DIN 43650
L	12DL	12 VDC, D-Coil, Dual Lead Wires, 18 inches long
L	12DL/36	12 VDC, D-Coil, Dual Lead Wires, 36 inches long
L	12DL/W	12 VDC, D-Coil, Dual Lead Wires with Weatherpak
L	12DR	12 VDC, D-Coil, Deutsch
L	12DS	12 VDC, D-Coil, Dual Spade
L	12EG	12 VDC, E-Coil, DIN 43650
L	12EJ	12 VDC, E-Coil, AMP Jr.
L	12EL	12 VDC, E-Coil, Dual Lead Wires, 18 inches long
L	12EL/36	12 VDC, E-Coil, Dual Lead Wires, 36 inches long
L	12ER	12 VDC, E-Coil, Deutsch
L	12EY	12 VDC, E-Coil, Metri-Pack 150
L	20DS	20 VDC, D-Coil, Dual Spade
L	20ER	20 VDC, E-Coil, Deutsch
L	24AG	24 VDC, D-Coil, DIN 43650
L	24AP	24 VDC, D-Coil, 1/2" Conduit and Dual Lead Wires
L	24DG	24 VDC, D-Coil, DIN 43650



POSITION	CODE	DESCRIPTION
L	24DL	24 VDC, D-Coil, Dual Lead Wires
L	24DL/W	24 VDC, D-Coil, Dual Lead Wires with Weatherpak
L	24DP	24 VDC, D-Coil, 1/2" Conduit and Dual Lead Wires
L	24DR	24 VDC, D-Coil, Deutsch
L	24DS	24 VDC, D-Coil, Dual Spade
L	24EG	24 VDC, E-Coil, DIN 43650
L	24EJ	24 VDC, E-Coil, AMP Jr.
L	24EL	24 VDC, E-Coil, Dual Lead Wires, 18 inches long
L	24EL/36	24 VDC, E-Coil, Dual Lead Wires, 36 inches long
L	24ER	24 VDC, E-Coil, Deutsch
L	24EY	24 VDC, E-Coil, Metri-Pack 150
L	36DS	36 VDC, D-Coil, Dual Spade

