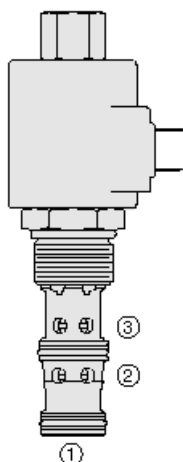




Overview



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.

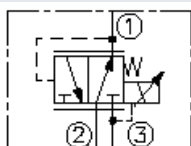
Operation

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

- 12 and 24 volt coils standard.
- 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

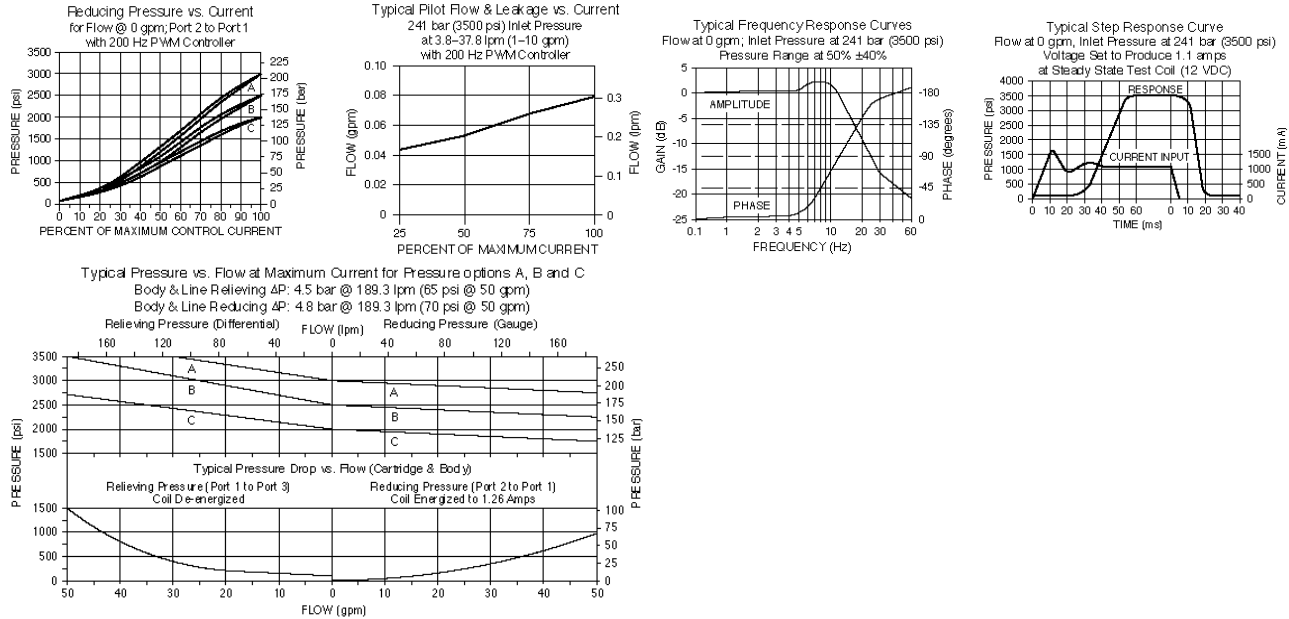
Operating Parameters

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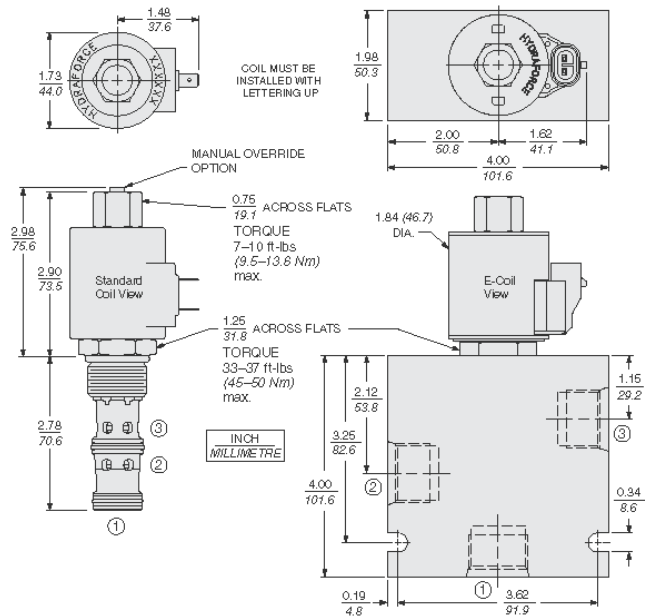
Electrical Parameters

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



Order Code

TS12-36		Termination Std. Coil	
<u>Maximum Reducing Pressure</u>		DS Dual Spades	
207 bar (3000 psi) A		DG DIN 43650	
172 bar (2500 psi) B		DL Leadwires (2)	
138 bar (2000 psi) C		DLW Leads w/Weatherpak® Connectors	
<u>Option</u>		DR Deutsch DT04-2P	
None (Blank)		<u>Termination E-Coil</u>	
Manual Override M		ER Deutsch DT04-2P (IP69K Rated)	
<u>Porting</u>		EY Metri-Pack® 150 (IP69K Rated)	
Cartridge Only 0		Coils with internal diode are available. Consult factory	
SAE 8 8T		<u>Seals</u>	<u>Voltage</u>
SAE 10 10T		0 Buna N (Std.)	0 Less Coil*
SAE 12 12T		12 Fluorocarbon	12 12 VDC
1/2 in. BSP* 4B		24 24 VDC	24 24 VDC
3/4 in. BSP* 6B			
*BSP Body; U.K. Mfr. Only			*Includes Coil nut

Model Options

**TS12-36DE-H-J-L****D Regulating Pressure Range**

CODE	DESCRIPTION
A	6.9 to 206.8 bar (100 to 3000 psi) Pressure Range
B	6.9 to 172.4 bar (100 to 2500 psi) Pressure Range
C	6.9 to 138.0 bar (100 to 2000 psi) Pressure Range

E Manual Override

CODE	DESCRIPTION
BLANK	NONE
M	Minimum Regulated Pressure Override, 3/16" Internal Hex

H Line Body

CODE	DESCRIPTION
0	No Body
8T	Aluminum SAE 8
10T	Aluminum SAE 10
12T	Aluminum SAE 12
12TD	Ductile Iron SAE 12
6B	Aluminum BSPP 3/4" (6)

J Seal

CODE	DESCRIPTION
N	Buna-N
V	Fluorocarbon
P	Polyurethane
U	PPDI Urethane

L Coil

CODE	DESCRIPTION
0	No Coil
10DG	10 VDC, D-Coil, DIN 43650
10DL	10 VDC, D-Coil, Dual Lead Wires
10DS	10 VDC, D-Coil, Dual Spade
10EL	10 VDC, E-Coil, Dual Lead Wires
10ER	10 VDC, E-Coil, Deutsch
12DG	12 VDC, D-Coil, DIN 43650
12DL	12 VDC, D-Coil, Dual Lead Wires, 18 inches long
12DL/36	12 VDC, D-Coil, Dual Lead Wires, 36 inches long
12DL/W	12 VDC, D-Coil, Dual Lead Wires with Weatherpak
12DR	12 VDC, D-Coil, Deutsch
12DS	12 VDC, D-Coil, Dual Spade
12EG	12 VDC, E-Coil, DIN 43650
12EJ	12 VDC, E-Coil, AMP Jr.
12EL	12 VDC, E-Coil, Dual Lead Wires, 18 inches long



CODE	DESCRIPTION
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12EL/36	12 VDC, E-Coil, Dual Lead Wires, 36 inches long
12ER	12 VDC, E-Coil, Deutsch
12EY	12 VDC, E-Coil, Metri-Pack 150
20DS	20 VDC, D-Coil, Dual Spade
20ER	20 VDC, E-Coil, Deutsch
24AG	24 VDC, D-Coil, DIN 43650
24AP	24 VDC, D-Coil, 1/2" Conduit and Dual Lead Wires
24DG	24 VDC, D-Coil, DIN 43650
24DL	24 VDC, D-Coil, Dual Lead Wires
24DL/W	24 VDC, D-Coil, Dual Lead Wires with Weatherpak
24DP	24 VDC, D-Coil, 1/2" Conduit and Dual Lead Wires
24DR	24 VDC, D-Coil, Deutsch
24DS	24 VDC, D-Coil, Dual Spade
24EG	24 VDC, E-Coil, DIN 43650
24EJ	24 VDC, E-Coil, AMP Jr.
24EL	24 VDC, E-Coil, Dual Lead Wires, 18 inches long
24EL/36	24 VDC, E-Coil, Dual Lead Wires, 36 inches long
24ER	24 VDC, E-Coil, Deutsch
24EY	24 VDC, E-Coil, Metri-Pack 150
36DS	36 VDC, D-Coil, Dual Spade