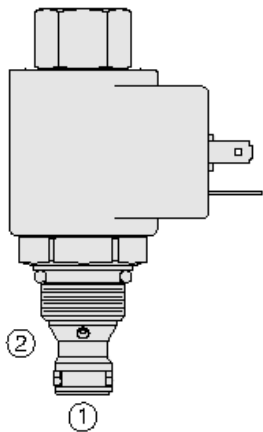




Overview



Description

TS08-20X is a direct-acting, single stage, poppet-type, proportional, pressure relieving valve. The regulated pressure is proportional to the input electrical current.

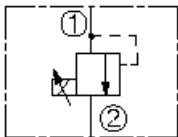
Operation

The TS08-20X blocks flow from port 1 to port 2 until sufficient pressure is present at port 1 to offset the electrically induced solenoid force. With no current applied, the valve will free flow from port 1 to port 2.

Features

- 12 and 24 volt coils standard.
- Optional waterproof E-Coils rated up to IP69K.
- Industry common cavity.
- Waterproof coils standard.

Symbol



Ratings

Pressure Ratings

Pressure rating	172 bar (2500 psi)	
Proof pressure	207 bar (3000 psi)	
Burst pressure	751.5 bar (10900 psi)	
Adjustable pressure range	0 to 34.5 bar (0 to 500 psi) range A	- Note: (from zero to maximum control current)
	0 to 20.7 bar (0 to 300 psi) range b	- Note: (from zero to maximum control current)

Flow Ratings

Flow rating	11.4 lpm (3 gpm)	- Note: Port 1 to 2 (coil de-energized)
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Temperature Ratings

Operating fluid temperature	-40 to 100 °C (-40 to 212 °F)	- Note: With buna N seals
	-26 to 204 °C (-15 to 400 °F)	- Note: With fluorocarbon seals
	-54 to 107 °C (-65 to 225 °F)	- Note: With polyurethane seals
Storage temperature	-40 to 70 °C (-40 to 160 °F)	
Ambient temperature	-40 to 70 °C (-40 to 160 °F)	

Other Ratings

Corrosion protection	960 hr salt spray per ASTM b117
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Operating Parameters

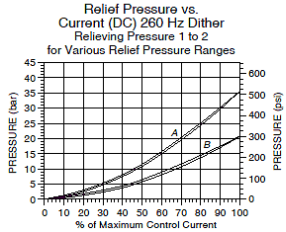
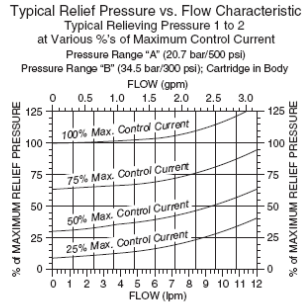
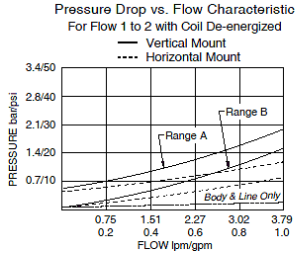
Fluids	Mineral based or synthetic with lubricating properties
Fluid viscosity range	7.4 to 420 cSt
Maximum operating contamination level	18/16/13 per ISO 4406

Properties

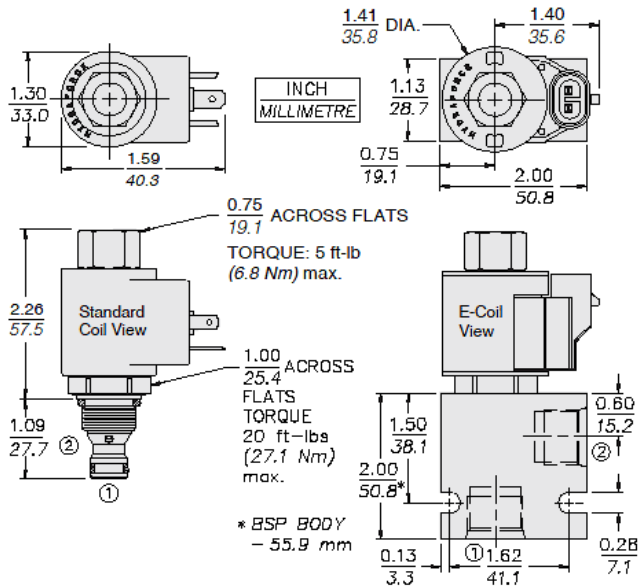
Unit weight	0.15 kg (0.33 lb)
Internal wetted surface area	105 cm ² (16.3 in ²)



Performance



Dimensions



Installation Specifications

Cavity	VC08-2
Cartridge installation torque	25.8 to 28.5 N-m (19 to 21 ft-lb)
Coil nut torque	5.4 to 6.8 N-m (4 to 5 ft-lb)
Orientation restriction	None

Accessories

Seal kit	SK08-2X-B	- Note: X=seal option
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Order Code



TS08-20					
<u>Maximum Relief Pressure</u>					<u>Termination Std. Coil</u>
34.5 bar (500 psi)	A			DS	Dual Spades
20.7 bar (300 psi)	B			DG	DIN 43650
				DL	Leadwires (2)
				DL/W	Leads w/Weatherpack Connectors
				DR	Deutsch DT04-2P
<u>Porting</u>					<u>Termination E-Coil</u>
Cartridge Only	0			ER	Deutsch DT04-2P (IP69K Rated)
SAE 6	6T			EY	Metri-Pack® 150 (IP69K Rated)
3/8 in. BSP*	3B				
1/2 in. BSP*	4B				
*BSP Body; U.K. Mfr. Only					
					Coils with internal diode are available. Consult factory.
				<u>Voltage</u>	
				0	Less Coil
<u>Seals</u>				10	10 VDC (0.80 amps max.)
Buna N (Std.)	N			12	12 VDC (0.65 amps max.)
Fluorocarbon	V			20	20 VDC (0.40 amps max.)
				24	24 VDC (0.33 amps max.)

Model Options

TS08-20D-H-J-L

D Regulating Pressure Range

CODE	DESCRIPTION
A	0 to 34.5 bar (500 psi) Pressure Range
B	0 to 20.7 bar (300 psi) Pressure Range

H Line Body

CODE	DESCRIPTION
0	No Body
4T	Aluminum SAE 4
6T	Aluminum SAE 6
8T	Aluminum SAE 8
6TD	Ductile Iron SAE 6
8TD	Ductile Iron SAE 8
2B	Aluminum BSPP 1/4" (2)
3B	Aluminum BSPP 3/8" (3)
3BD	Ductile Iron BSPP 3/8" (3)

J Seal

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

L Coil

CODE	DESCRIPTION
0	No Coil
10DL	10 VDC, D-Coil, Dual Lead Wires
10DS	10 VDC, D-Coil, Dual Spade
10EL	10 VDC, E-Coil, Dual Lead Wires, 18 inches long
10EL/36	10 VDC, E-Coil, Dual Lead Wires, 36 inches long
10ER	10 VDC, E-Coil, Deutsch



CODE	DESCRIPTION
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
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
20DG	20 VDC, D-Coil, DIN 43650
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, 18 inches long
24DL/36	24 VDC, D-Coil, Dual Lead Wires, 36 inches long
24DL/W	24 VDC, D-Coil, Dual Lead Wires with Weatherpak
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.
24ER	24 VDC, E-Coil, Deutsch
24EY	24 VDC, E-Coil, Metri-Pack 150
36DG	36 VDC, D-Coil, DIN 43650
36DS	36 VDC, D-Coil, Dual Spade