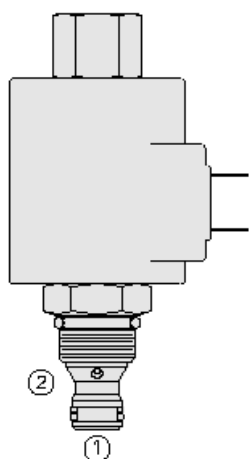




Overview



Description

TS58-20X is a direct-acting, poppet-type, proportional, pressure relieving valve. The regulated pressure is proportional to the input electrical current. Port 1 may be protected by 150 mesh screen. Back pressure additive to pressure setting at 1:1 ratio.

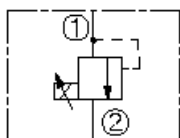
Operation

The TS58-20X blocks flow from port 1 to port 2 until sufficient pressure is present at port 1 to open the valve. 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.

Symbol



Ratings

Pressure Ratings

Pressure rating	427.5 bar (6200 psi)	- Note: Port 1
	68.9 bar (1000 psi)	- Note: Port 2
Proof pressure	448.2 bar (6500 psi)	- Note: Port 1
	103.4 bar (1500 psi)	- Note: Port 2
Burst pressure	944.6 bar (13700 psi)	
Adjustable pressure range	0 to 344.7 bar (0 to 5000 psi)	
Note	Maximum pressure factory adjustable between 275.8 to 344.7 bar (4000 to 5000 psi) in 6.9 bar (100 psi) increments	

Flow Ratings

Flow rating	6.8 lpm (1.8 gpm)	
	5.5 to 8.3 bar (-80 to 120 psi)	
Maximum internal leakage	4.5 ml/min (0.275 in ³ /min)	- Note: At 80% of maximum setting does not exceed
Hysteresis per cent	3.5 %	- Note: Maximum at 200 Hz dither or PWM

Other Ratings

Response	45 ms	- Note: Current step from 0 to maximum
	8 ms	- Note: Current step from maximum to 0
Corrosion protection	960 hr salt spray per ASTM b117	

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)	

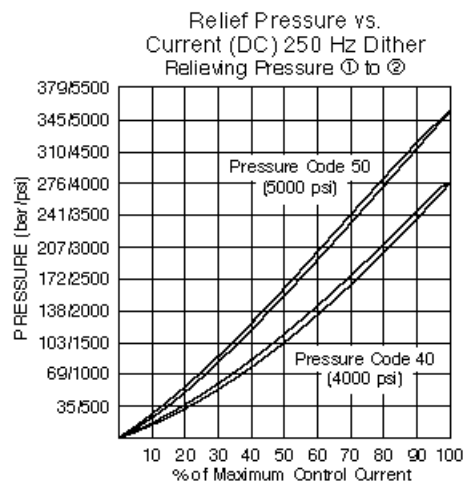
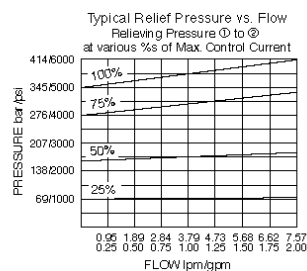
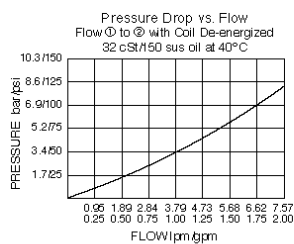
Operating Parameters

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

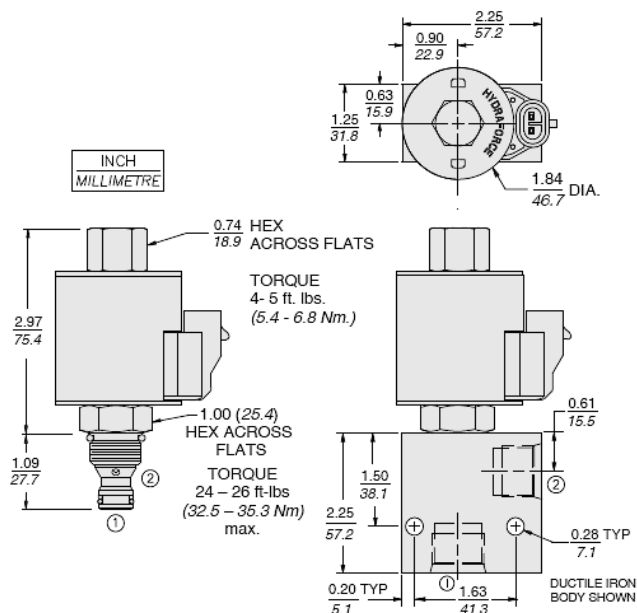
Properties

Screen mesh	150 x 150
Screen wire diameter	0.066 mm (0.0026 in)
Screen opening	0.104 mm (0.0041 in)
Unit weight	0.18 kg (0.40 lb)
Internal wetted surface area	118 cm ² (18.3 in ²)

Performance



Dimensions



Installation Specifications

Cavity	VC08-2
Cartridge installation torque	32.5 to 35.3 N-m (24 to 26 ft-lb)
Coil nut torque	5.4 to 6.8 N-m (4 to 5 ft-lb)
Orientation restriction	None



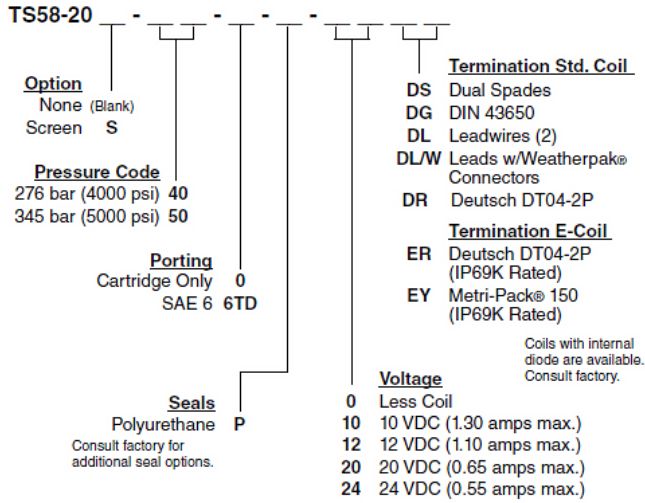
Accessories

Seal kit

SK08-2X-B (x = seal option)

- **Note:** X = seal option

Order Code



Model Options

TS58-20DG-H-J-L

D Regulating Pressure Range

CODE	DESCRIPTION
40	4000 psi Max Setting
41	4100 psi Max Setting
42	4200 psi Max Setting
43	4300 psi Max Setting
44	4400 psi Max Setting
45	4500 psi Max Setting
46	4600 psi Max Setting
47	4700 psi Max Setting
48	4800 psi Max Setting
49	4900 psi Max Setting
50	5000 psi Max Setting

G Screen

CODE	DESCRIPTION
BLANK	NONE
S	150 Mesh Screen

H Line Body

CODE	DESCRIPTION
0	No Body
4T	Aluminum SAE 4



CODE	DESCRIPTION
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

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
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



CODE	DESCRIPTION
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