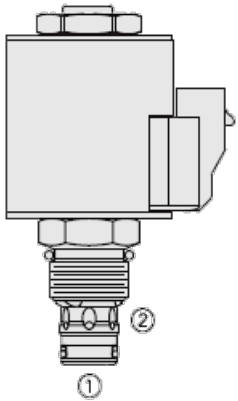




## Overview



### Description

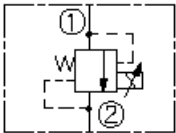
This is a pilot operated spool type, proportional pressure relieving valve. It is intended for use in mineral based or synthetic (with lubricating properties) hydraulic fluids. The regulated pressure is inversely proportional to the input electrical current in the pressure ranges shown.

### Features

- 12 and 24 volt coils standard.
- Industry common cavity.
- Corrosion-resistant, 960 hour-salt-spray-rated protective coating standard.
- Adjustable or fixed relief pressure settings.
- Higher pressure 330.9 bar (4800 psi) factory-set model F available.

### Symbol

USAS/ISO:



## Ratings

### Pressure Ratings

Pressure rating	241 bar (3500 psi) 103.4 bar (1500 psi)	- <b>Note:</b> Maximum tank port pressure dynamic condition
Regulated pressure range	6.9 to 206.8 bar (100 to 3000 psi)	- <b>Note:</b> (a) from zero to maximum control current
	6.9 to 138 bar (100 to 2000 psi)	- <b>Note:</b> (b) from zero to maximum control current
	6.9 to 69 bar (100 to 1000 psi)	- <b>Note:</b> (c) from zero to maximum control current
Relief pressure range	6.9 to 206.8 bar (100 to 3000 psi)	- <b>Note:</b> A (from zero to imax)
	6.9 to 138 bar (100 to 2000 psi)	- <b>Note:</b> B (from zero to imax)
	6.9 to 69 bar (100 to 1000 psi)	- <b>Note:</b> C (from zero to imax)
Pressure rise	0.48 bar/lpm (26.5 psi/gpm)	- <b>Note:</b> A
	0.36 bar/lpm (20 psi/gpm)	- <b>Note:</b> B
	0.46 bar/lpm (25 psi/gpm)	- <b>Note:</b> C

### Flow Ratings

Flow rating	75.7 lpm (20 gpm)	- <b>Note:</b> $\hat{a}^{-3}p$ (cartridge only) port 1 to port 2 (coil energized) 20.7 to 24.1 bar (300 to 350 psi)
Maximum pilot flow	0.76 lpm (0.2 gpm)	
Hysteresis per cent	3.2 %	- <b>Note:</b> (a)
	3.0 %	- <b>Note:</b> (a)
	4.8 %	- <b>Note:</b> (c)

### Temperature Ratings

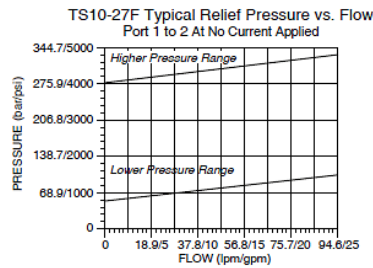
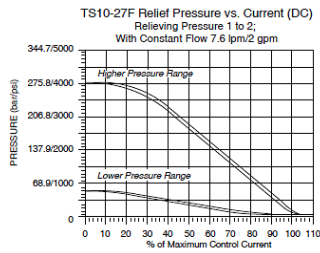
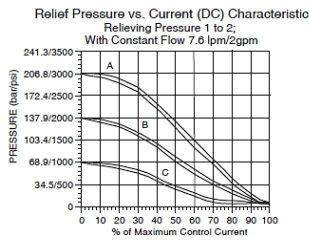
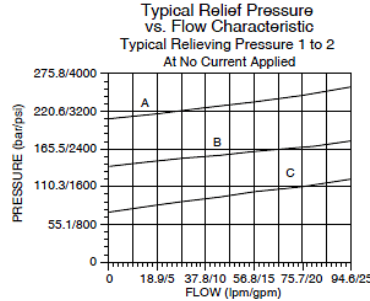
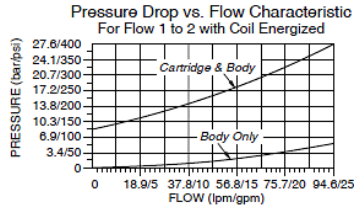
Operating fluid temperature	-40 to 120 °C (-40 to 250 °F)	- <b>Note:</b> With buna N seals
	-35 to 204 °C (-31 to 400 °F)	- <b>Note:</b> With viton seals

## Electrical Parameters

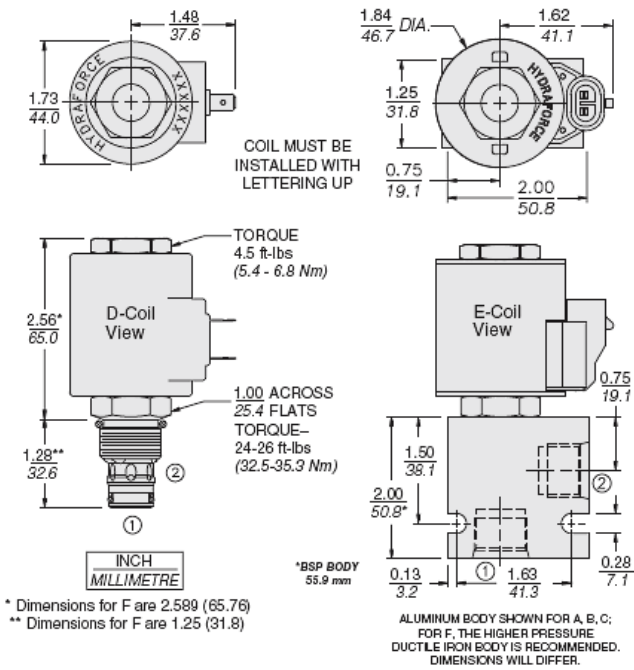
Maximum control current	1.10 A	- <b>Note:</b> D-series coil 12 Vdc
	0.55 A	- <b>Note:</b> D-series coil 24 Vdc
Dither PWM frequency	200 Hz	



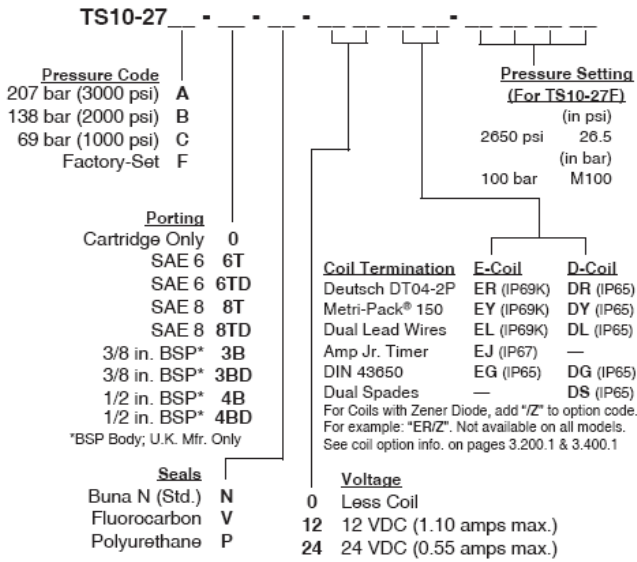
## Performance



## Dimensions



## Order Code



**Model Options**

**TS10-27D-H-J-L**

**D Regulating Pressure Range**

CODE	DESCRIPTION
A	206.8 to 6.9 bar (3000 to 100 psi) Pressure Range
B	137.9 to 6.9 bar (2000 to 100 psi) Pressure Range
C	68.9 to 6.9 bar (1000 to 100 psi) Pressure Range
E	Adjustable Crack Pressure at Zero Current
F	275.8 to 27.6 bar (4000 to 400 psi) Crack Pressure at Zero Current

**H Line Body**

CODE	DESCRIPTION
0	No Body
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)
4B	Aluminum BSPP 1/2" (4)
4BD	Ductile Iron BSPP 1/2" (4)

**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



CODE	DESCRIPTION
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
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