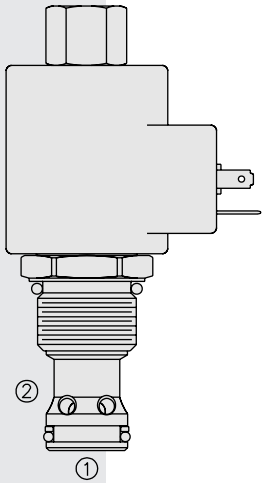
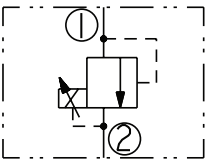


TS12-26 Proportional Pressure Relief w/Internally

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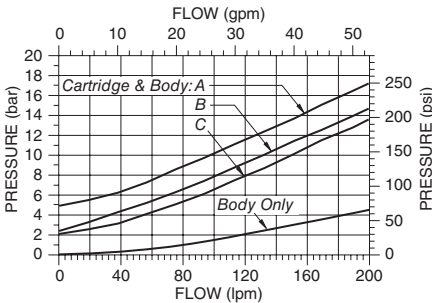


ISO SYMBOL

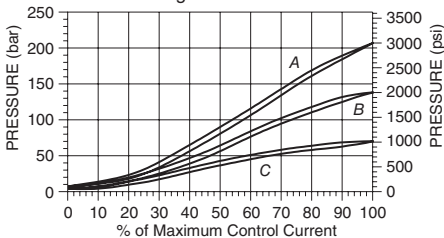


PERFORMANCE

PRESSURE DROP VS. FLOW
For Flow 1 to 2 with Coil De-energized



RELIEF PRESSURE VS. CURRENT (DC)
200 Hz PWM
Relieving Pressure 1 to 2



DESCRIPTION

A screw-in, cartridge-style, pilot-operated, spool-type hydraulic relief valve, which can be infinitely adjusted across a prescribed range using a variable electric input. Pressure output is proportional to DC current input. This valve is intended for use as a pressure limiting device in demanding applications.

OPERATION

The TS12-26 blocks flow from 1 to 2 until sufficient pressure is present at 1 to open the pilot section by offsetting the electrically induced solenoid force. With no current applied to the solenoid, the valve will relieve at approximately 100 psi.

The optional manual override allows the valve to be set when the electric supply is lost. The manual setting is added to the electric setting. To prevent the system from being over pressurized, the manual override should always be disengaged prior to applying power to the coil.

FEATURES

- Manual override option.
- Several adjustable pressure settings.
- Industry common cavity.
- 12 and 24 volt coils standard.
- Optional waterproof E-Coils rated up to IP69K.

RATINGS

Pressure Rating: 241 bar (3500 psi) at Port 1; 207 bar (3000 at Port 2

Proof Pressure: 345 bar (4000 psi)

Burst Pressure: 827 bar (12,000) with coil assembled

Pressure Range by Current Adjustment from Zero to Maximum Control Current:

- A:** 6.9–207 bar (100–3000 psi)
- B:** 6.9–138 bar (100–2000 psi)
- C:** 2.1–69 bar (30–1000 psi)

Flow Rating: 189 lpm (50 gpm) @ Pressure Drop (Cartridge only) 12.4 bar (180 psi) Port 1 to 2 (coil de-energized)

Electrical Parameters:

COIL SERIES	NOMINAL VOLTAGE (VDC)	TYPICAL RESISTANCE AT 20°C (68°F) (OHMS)	VALVE INDUCTANCE (Mh)	MAXIMUM CONTROL CURRENT (A)
D	12	7.25 ± 5%	141	1.10
	24	28.35 ± 5%	626	0.55
E	12	7.3 ± 5%	139	1.20
	24	29.4 ± 5%	600	0.60

Hysteresis: Less than 3%

Maximum Pilot Flow: 0.76 lpm (0.2 gpm)

Temperature: -40 to 100°C (-40 to 212°F) with standard Buna N seals

Filtration: See page 9.010.1

Fluids: Mineral-based or synthetics with lubricating properties at viscosities of 7.4 to 420 cSt (50 to 2000 sus); See Temperature and Oil Viscosity, page 9.060.1

Installation Recommendation: When possible, the valve should be mounted below the reservoir oil level. This will maintain oil in the armature preventing trapped air instability. If this is not feasible, mount the valve horizontally for best results.

Cavity: VC12-2; See page 9.112.1;

Cavity Tool: CT12-2XX; See page 8.600.1

Seal Kit: SK12-2X-B; See page 8.650.1

Coil Nut: Part No. 4540560;

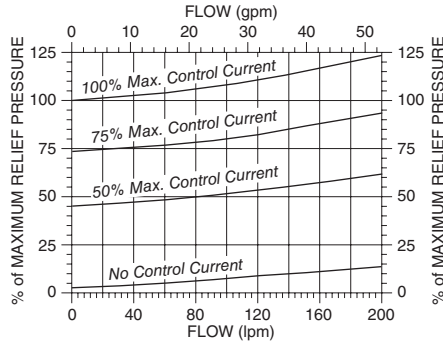
For E-coils manufactured prior to 1-1-04, see page 3.400.1 for coil nut info.

Piloted Spool

TS12-26

PERFORMANCE

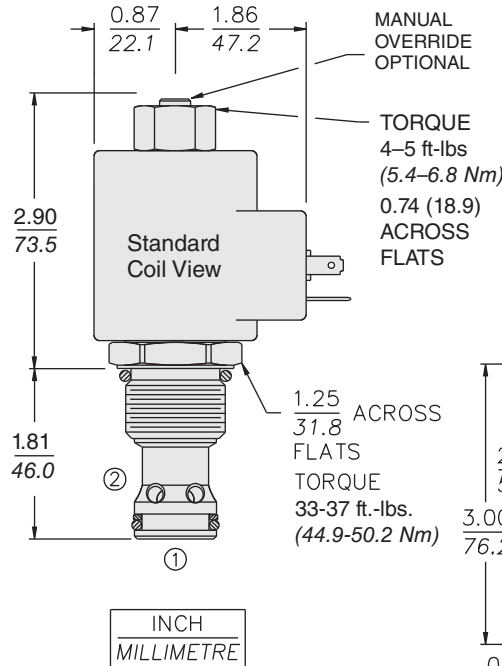
TYPICAL RELIEVING PRESSURE 1 to 2 at Various %'s of Maximum Control Current Pressure Range "A" (207 bar/3000 psi); Cartridge in Body



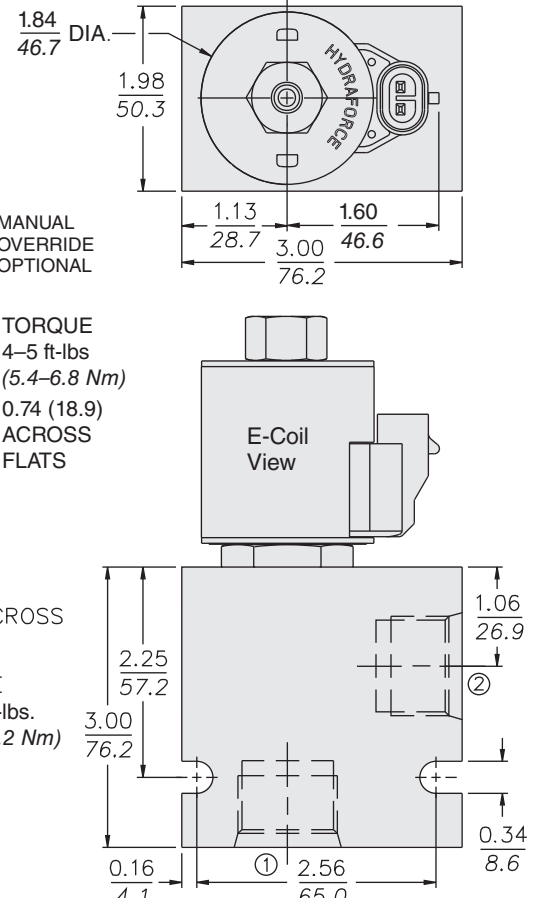
DIMENSIONS

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COIL MUST BE INSTALLED WITH LETTERING UP



ALUMINUM BODY SHOWN



MATERIALS

Cartridge: Weight: 0.56 kg. (1.23 lbs.)
Steel with hardened work surfaces.
Zinc-plated exposed surfaces.
Buna N O-rings and polyester elastomer back-ups standard.

Standard Ported Body: Weight: 0.36 kg. (0.80 lbs.) Anodized high-strength aluminum alloy, rated to 207 bar (3000 psi). Ductile iron bodies available; dimensions may differ. See page 8.012.1

Standard Coil: Weight: 0.32 kg. (0.7 lbs.) Unitized thermoplastic encapsulated, high temperature magnet-wire. See page 3.200.1

E-Coil: Weight: 0.41 kg. (0.9 lbs.) Fully encapsulated with rugged external metal shell Rated up to IP69K with integral connectors.

Note: See page 3.400.1 for all E-Coil retrofit applications.

TO ORDER

TS12-26

Pressure Code

6.9 - 207 bar (100-3000 psi) **A**
6.9 - 138 bar (100-2000 psi) **B**
2.1 - 69 bar (30 - 1000 psi) **C**

Option(s)

None (Blank)
Manual Override **M**

Porting

Cartridge Only **0**
SAE 16 **16T**
SAE 12 **12T**
SAE 12 (Ductile Iron) **12TD**
3/4 in. BSP* **6B**

*BSP Body; U.K. Mfr. Only

Seals

Buna N (Std.) **N**
Fluorocarbon **V**

Coil Termination

Coil Termination	E-Coil	D-Coil
Deutsch DT04-2P	ER (IP69K)	DR (IP65)
Metri-Pack® 150	EY (IP69K)	DY (IP65)
Dual Lead Wires	EL (IP69K)	DL (IP65)
Amp Jr. Timer	EJ (IP67)	—
DIN 43650	EG (IP65)	DG (IP65)
Dual Spades	—	DS (IP65)

For Coils with Zener Diode, add "Z" to option code. For example: "ERZ". Not available on all models. See coil option info. on pages 3.200.1 & 3.400.1

Voltage

0 Less Coil
12 12 VDC (1.10 amps max.)
24 24 VDC (0.55 amps max.)

For other voltages, consult factory.