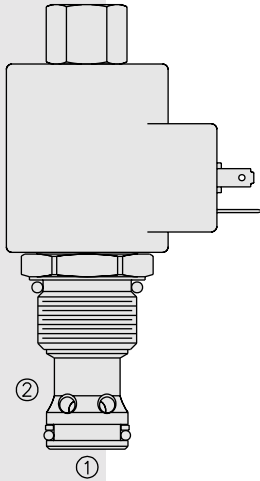


TS12-26 Proportional Electric Relief w/Internally

Patent Pending



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.

FEATURES

- Airbleed standard.
- Manual Override option.
- 12 and 24 volt coils standard.
- Industry common cavity.
- Optional waterproof E-Coils rated up to IP69K.

RATINGS

Maximum Operating Pressure: 241 bar (3500 psi)

Maximum Control Current: 1.10 amps for 12 VDC coil; 0.55 amps for 24 VDC coil

Relief Pressure Range from Zero to Maximum Control Current:

- A:** 5.2–207 bar (75–3000 psi)
- B:** 3.4–138 bar (50–2000 psi)
- C:** 2.1–70 bar (30–1000 psi)

Rated Flow: 189 lpm (50 gpm); See Performance Charts

Maximum Pilot Flow: **A:** 1.9 lpm (.5 gpm); **B:** 1.3 lpm (.35 gpm); **C:** .9 lpm (.25 gpm)

Hysteresis: Less than 3%

Flow Path: Free Flow: ① to ② coil de-energized; Relieving: ① to ② coil energized

Temperature: -40 to 120°C (-40 to 250°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 ssu)

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

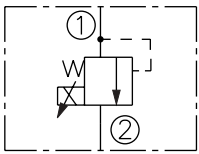
Seal Kit: SK12-2X-B; See page 8.650.1

Coil Nut: Part No. 4540560;

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

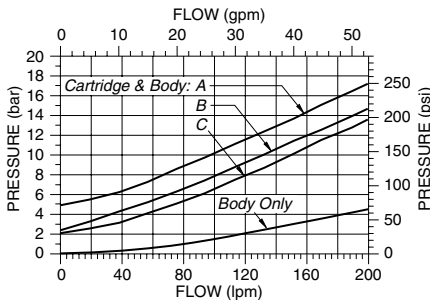
SYMBOLS

USAS/ISO:

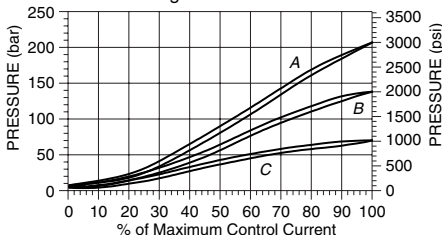


PERFORMANCE

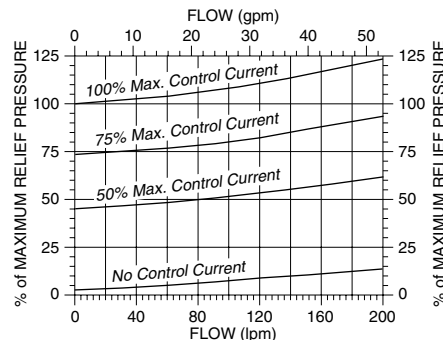
Pressure Drop vs. Flow Characteristic For Flow ① to ② with Coil De-energized



Relief Pressure vs. Current (DC) Characteristic 200 Hz PWM Relieving Pressure ① to ②



Typical Relieving Pressure vs. Flow Characteristic at Various %'s of Maximum Control Current Pressure Range "A" (207 bar/3000 psi); Cartridge in Body



Recommended Controllers (See Section 3)

Input Sig. w/12V or 24V Coil	DIN Coil Mount	PCB Board	Metal Box	DIN Rail Mount
0-5 VDC	4000161	4000194	4000174	4000136
0-10 VDC	4000165	4000141	4000182	4000137
4-20 mA	4000169	4000143	4000186	4000139
PWM	—	4000144	4000133	4000140

