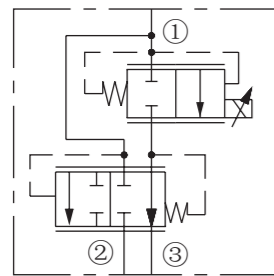


ISO SYMBOL



DESCRIPTION

A solenoid-operated, electrically-variable, three-port, pressure-compensated, spooltype, normally closed when de-energized, proportional flow control valve. It can be used as a priority-type flow regulator with pressure-compensated, regulated and bypass flow. It can also be used as a restrictive-type 2-way, pressure-compensated flow regulator when the bypass line (port 2) is blocked.

OPERATION

INPV70-30 will regulate flow out of port 3 regardless of system working pressure. With an increasing current applied to the solenoid, the INPV70-30 will increase output flow.

Note: When used as a bypass flow control in applications where the priority flow port will be blocked by external valving, bypass pressure drop will increase unless a small amount of leakage is provided for the priority port. Consult factory.

Operation of Manual Override:

To Engage: Turn clockwise approximately 1 turn to reach start point. Continue another approximately 5 turns to full shift.

To Disengage: Turn counterclockwise approximately 6 turns to positive stop.

FEATURES

- Excellent linearity and hysteresis..
- Hardened spool and cage for long life..
- Optional coil voltages and terminations..
- Efficient wet armature construction.

RATINGS

**Operating Pressure:**Inlet: 240 bar (3500 psi); Ports ② and ③: 207 bar (3000 psi)

**Regulated Flow Rate:**

Bypass Blocked, Range A: 26 lpm (7 gpm)  
 Bypass Blocked, Range B: 17 lpm (4.5 gpm)  
 Bypass Open, Range A: 30 lpm (8 gpm)  
 Bypass Open, Range B: 17 lpm (4.5 gpm)

**MAX Input Flow**

Bypass Open, Range A: 50 lpm (13 gpm)  
 Bypass Open, Range B: 26 lpm (7 gpm)

**Internal Leakage:**

197 cc/min. (12 cu. in./min.) fully closed at 207 bar (3000 psi),

Electrical: 2 standard voltage ratings

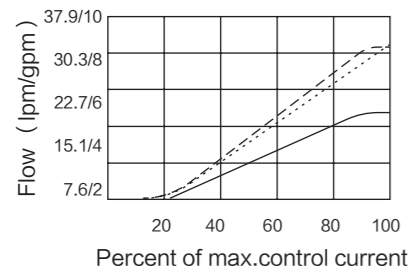
Coil Voltage	Threshold Current	Max. Control Current
12 VDC	350 ± 70 mA	1500 ± 200 mA
24 VDC	175 ± 35 mA	750 ± 100 mA

**Fluids:**Mineral-based or synthetics with lubricating properties at viscosities of 7.4 to 420 cSt (50 to 2000 ssu)

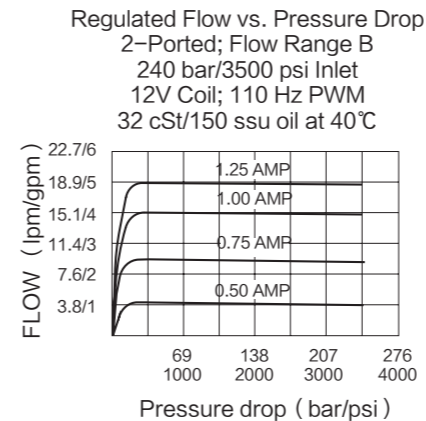
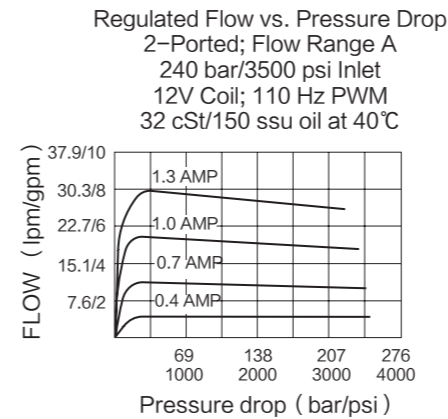
**Cavity:**T10-3A; See bottom of this catalog.

PERFORMANCE (Cartridge Only)

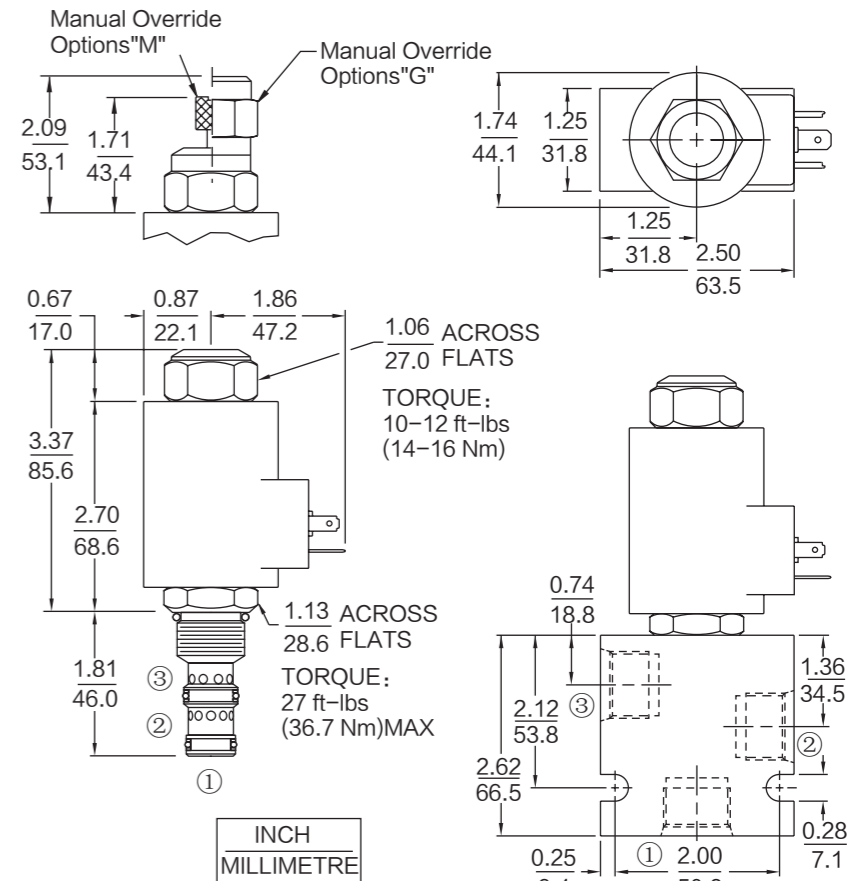
Flow vs. Current  
 207 bar/3000 psi; 12V Coil; 200 Hz PWM  
 32 cSt/150 ssu oil at 40°C  
 ..... Range A, 2-Ported  
 - - - - - Range A, 3-Ported  
 Range B, 2-Ported or Range B, 3-Ported



PERFORMANCE (Continued)



DIMENSIONS



MATERIALS

**Cartridge: Weight:**0.19 kg ( 0.42 lbs ) ; Steel with hardened work surfaces. Zinc-plated exposed surfaces. Buna N O-rings and polyester elastomer back-ups standard.

**BODY:Weight:**0.36 kg ( 0.80lbs ) ; Anodized highstrength 6061 T6 aluminum alloy, rated to 240 bar ( 3500 psi ) ; Ductile iron bodies available; dimensions may differ.

**P70-Size "D" Coil:Weight:** 0.32 kg ( 0.7 lbs ) ; Unitized thermoplastic encapsulated, Class H high temperature magnet-wire.

TO ORDER

