PROPORTIONAL VALVE

PROPORTIONAL 3 WAY PRESSURE COMPENSATED PRIORITY TYPE FLOW REGULATOR

PFP3-78-*

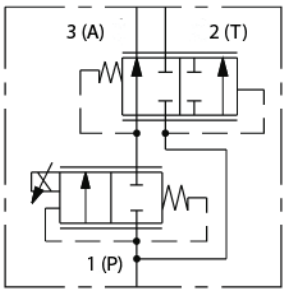
25 l/min 25 MPa (250 bar)

1 DESCRIPTION

Proportional 3 way pressure compensated priority type flow regulator, normally closed, spool type. When port 2 is blocked valve acts as a restrictive type 2 way pressure compensated flow regulator. PFP3-78 valve allows flow regulation from 0 to max flow through proportional PWM signal control and flow rate is kept constant out of port 1 regardless of load pressure variations downstream of port 3 and port 2. Port 2 receives excess flow which is normally sent to tank.

2 ORDERING CODE

(1)		(2)		(3)		(4)		(5)
PFP3	-	78	-		-		-	



(1) PFP3: proportional 3 way flow regulator, priority type

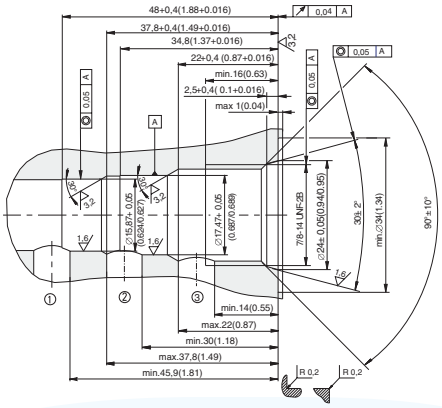
(2) 78: cavity SAE10 (7/8" 14 UNF)

Valves variants:
- 03: screw manual override
- 04: knob manual override
- 05: graduated knob manual override

(4) Options:
- No designation: Zinc trivalent coating (240 salt spray test)

(5) Electric voltage and solenoid coils
- 012CDR: coil for V12DC with quenching diode
- 024CDR: coil for V24DC with quenching diode
- 012C: coil for V12DC
- 024C: coil for V24DC

(6) Coil connection
- no designation : DIN 43650-A ISO 4400
- AMP: Amp Junior Timer
- D: Deutsch DT04-2P



3 TECHNICAL DATA

Nominal flow	25 l/min
Maximum rec. flow rate	35 l/min
Maximum nominal pressure	25 MPa (250 bar)
Fluid range temperature	-30°C / +100°C
Optimal dither control	120-140 Hz
Valve Hysteresis	±5 %
Protection	IP 67
Duty cycle	100%
Installation and dimension	(see 5)
Valve Body	Steel
Mass	0,22 kg
Note: pressure in T line influences valve performances	

Electric charateristics:

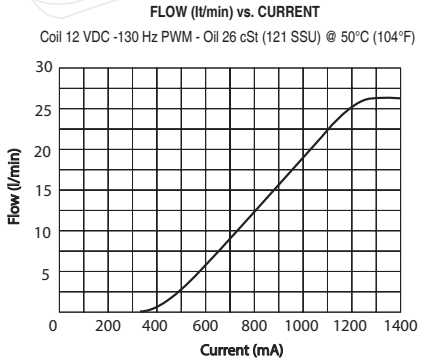
Valve type PFP3-78 are operated by solenoid that are energized from a D.C. voltage supply:
- V 12 DC = 012C
- V 24 DC = 024C

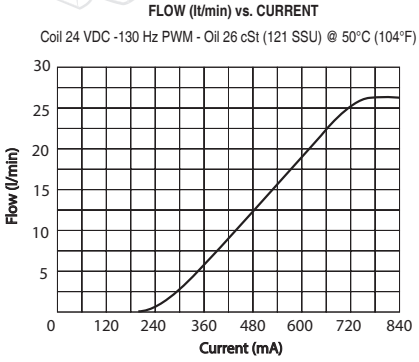
With an appropriate electrical driver in order to control the input current at the valve

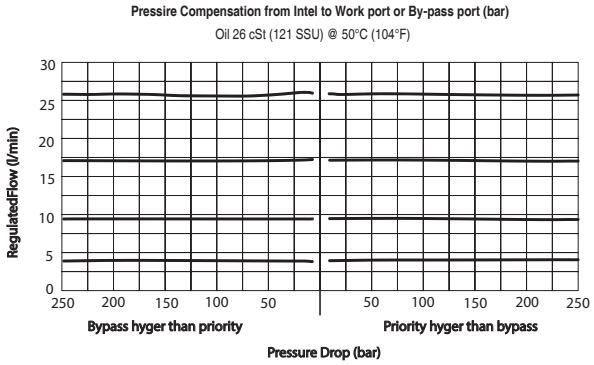
Coils with an integrated quenching diode and their characteristics are:
- V 12 DC - limit current 1,0 A - 6,5 Ohm
- V 24 DC - limit current 0,6 A - 20,8 Ohm

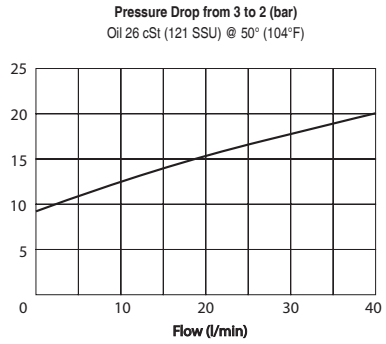
4 TYPICAL DIAGRAMS

Typical P-Q curves for valves PFP3-78 in standard configuration, with mineral oil at ν=32 mm²/s and at T=40°C.

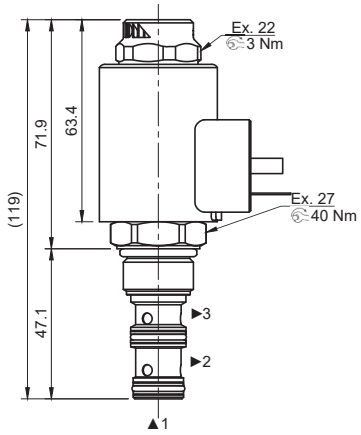


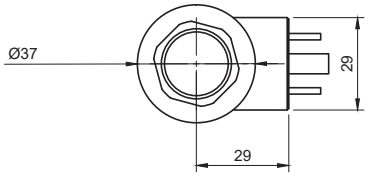






5 INSTALLATION DIMENSIONS (mm)





6 HYDRAULIC FLUIDS

Seals and materials used on standard valves PFP3-78 are fully compatible with hydraulics fluids of mineral base, upgraded with antifoaming and anti oxidizing agents. The hydraulic fluid must be kept clean and filtered to ISO 4406 class 19/17/14, or better, and used in a recommended viscosity range from 10 cSt to 60 cSt.