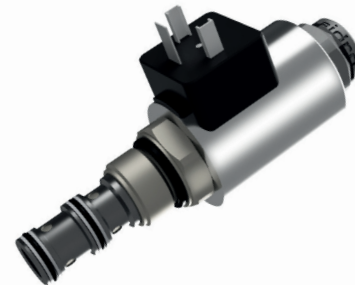


## PROPORTIONAL 3 WAY PRESSURE COMPENSATED PRIORITY TYPE FLOW REGULATOR PFP3-78-\*

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)

ZN: Zinc-Nickel coating (520 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

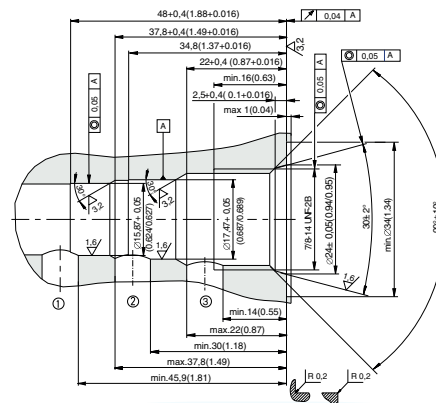
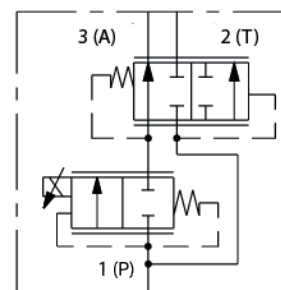
024C: coil for V24DC

(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 characteristics:

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

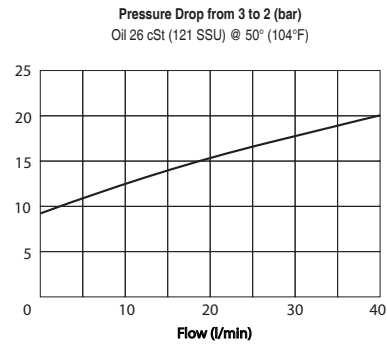
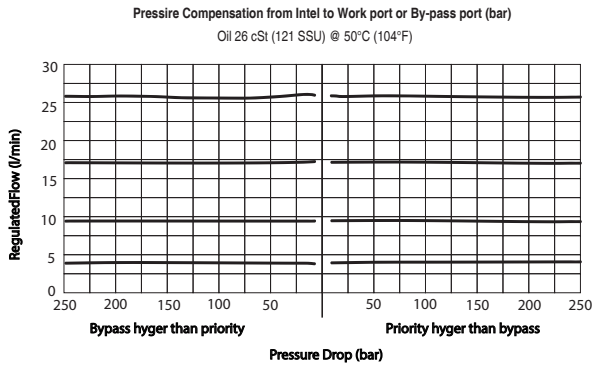
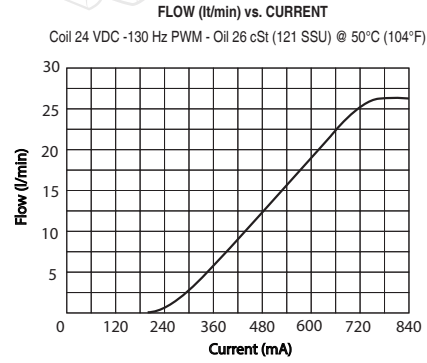
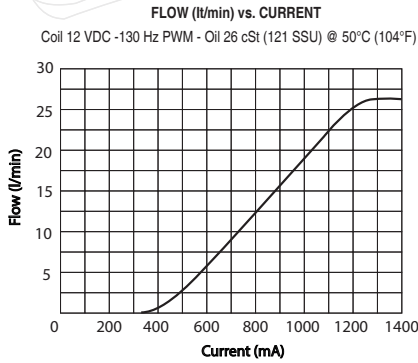
Coils with an integrated quenching diode and their characteristics are:

V 12 DC - limit current 1,0 A - 6,5 Ohm

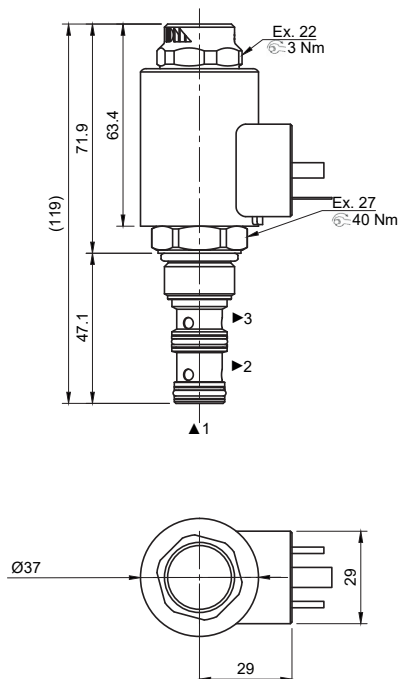
V 24 DC - limit current 0,6 A - 20,8 Ohm

## 4 TYPICAL DIAGRAMS

Typical P-Q curves for valves PFP3-78 in standard configuration, with mineral oil at  $v=32 \text{ mm}^2/\text{s}$  and at  $T=40^\circ\text{C}$ .



## 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.