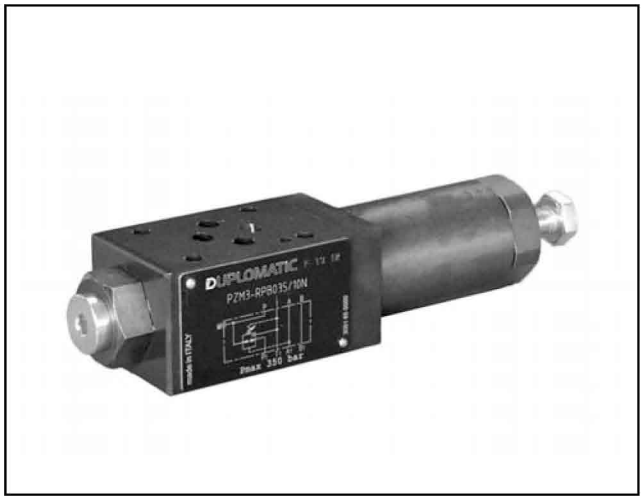
Part number:

HYDROMA HYDRAULICKÉ SYSTÉMY | HIDROMA SISTEMS UKŁADY HYDRAULICZNE | HYDROMA ГИДРАВЛИЧЕСКИЕ СИСТЕМЫ



PZM3

DIRECT OPERATED THREE-PORT PRESSURE REDUCING VALVE WITH VARIABLE ADJUSTMENT

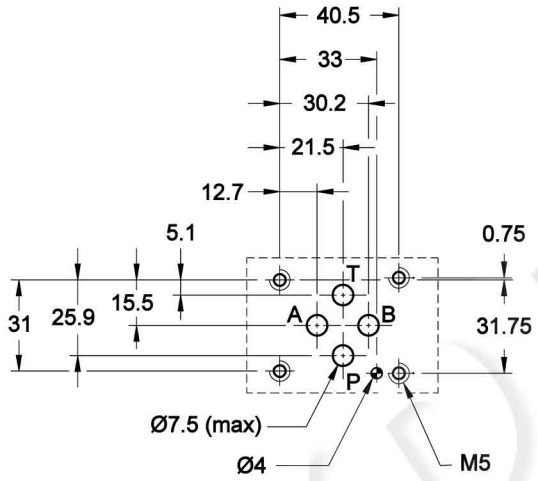
SERIES 10

MODULAR VERSION
ISO 4401-03

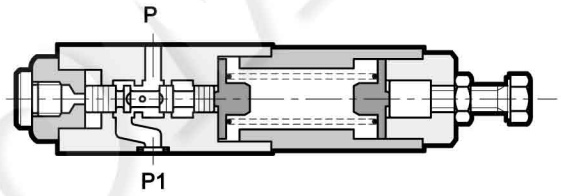
p max **350** bar
Q max (see table of performances)

MOUNTING INTERFACE

ISO 4401-03-02-0-05
(CETOP 4.2-4-03-350)



OPERATING PRINCIPLE



— The PZM3 valve is a three-port, spool type, direct operated pressure reducing valve with variable adjustment.

— It is made in modular version according to the ISO 4401-03 standards, it can be assembled quickly under solenoid valves, without the use of pipes.

— It is normally open and the hydraulic fluid flows freely from P1 port to P port.

— The three-way design provides protection of the secondary circuit from pressure surges since it allows a reverse flow from the actuator to the T discharge line.

The spool is subjected to the pressure in the P path but also to the force of the counter spring. When the pressure in P1 exceeds the spring force, the valving element closes until the pressure is reduced to the set pressure value.

— The valve provides good adjustment sensitivity with reduced drain flow. The drain is connected to path T inside the valve.

— The valve can be supplied with adjustment by hexagonal head screw or by knob.

PERFORMANCES

(measured with mineral oil of viscosity 36cSt at 50°C)

Maximum operating pressure Maximum pressure on port T	bar	350 10
Maximum flow rate in the controlled lines Maximum flow rate in the free lines Drainage flow rate	l/min	50 75 ≤ 0.08
Ambient temperature range	°C	-20 / +60
Fluid temperature range	°C	-20 / +80
Fluid viscosity range	cSt	10 ÷ 400
Fluid contamination degree	According to ISO 4406:1999 class 20/18/15	
Recommended viscosity	cSt	25
Mass	kg	1.6

1 - IDENTIFICATION CODE

P	Z	M	3	-			/	10		/		

Pressure reducing valve, direct operated

Modular version

Size ISO 4401-03

Configurations:

P = pressure reduction in P. Internal drain to line T and adjustment on side B

PA = pressure reduction in line P-A and full pressure in line P-B with adjustment on side B

PB = pressure reduction in line P-B and full pressure in line P-A with adjustment on side B

RP = pressure reduction in P. Internal drain to line T and adjustment on side A

RPA = pressure reduction in line P-A and full pressure in line P-B with adjustment on side A

RPB = pressure reduction in line P-B and full pressure in line P-A with adjustment on side A

Pressure adjustment range:

035 = 3 ÷ 35 bar **140** = 30 ÷ 140 bar

070 = 10 ÷ 70 bar **280** = 50 ÷ 280 bar

Series No. (the overall and mounting dimensions remain unchanged from 10 to 19)

Seals:

N = NBR seals for mineral oils (**standard**)

V = FPM seals for special fluids

Adjustment type:

S = with hexagonal head screw (**standard**)

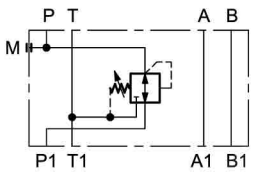
CK3 = with push, adjust, lock knob (see point 6)

Option: **/W7** surface treatment. Available only for PZM3-P and PZM3-RP in the version with S adjustment type. Omit if not required (**NOTE**)

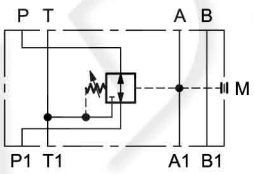
NOTE: The standard valve is supplied with surface treatment of phosphating black.
The zinc-nickel finishing on the valve body makes the valve suitable to ensure a salt spray resistance up to **240** hours.
(test operated according to UNI EN ISO 9227 standards and test evaluation operated according to UNI EN ISO 10289 standards).

2 - HYDRAULIC SYMBOLS

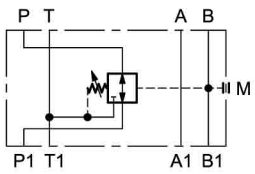
PZM3-P
PZM3-RP



PZM3-PA
PZM3-RPA



PZM3-PB
PZM3-RPB

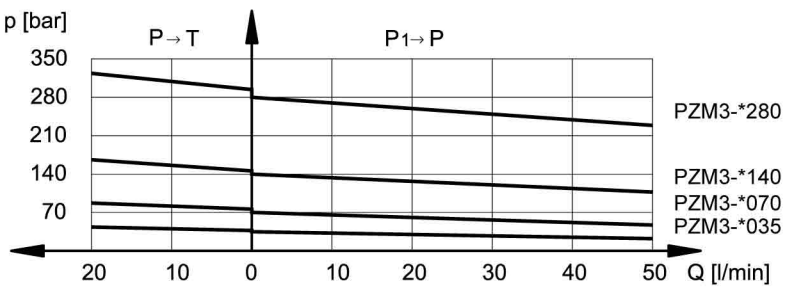


NOTE: The versions RP, RPA and RPB have been made with adjustment on side A, so as to be interchangeable with valves of other companies.
The standard version is equipped with adjustment on side B.

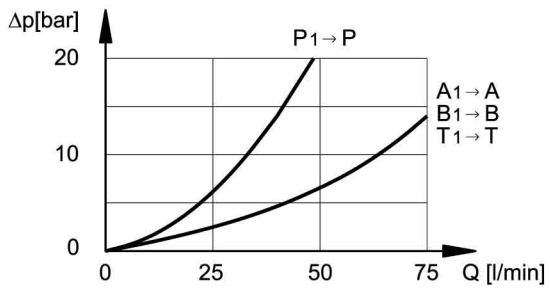
3 - CHARACTERISTIC CURVES

(values obtained with viscosity of 36 cSt at 50°C)

ADJUSTMENT



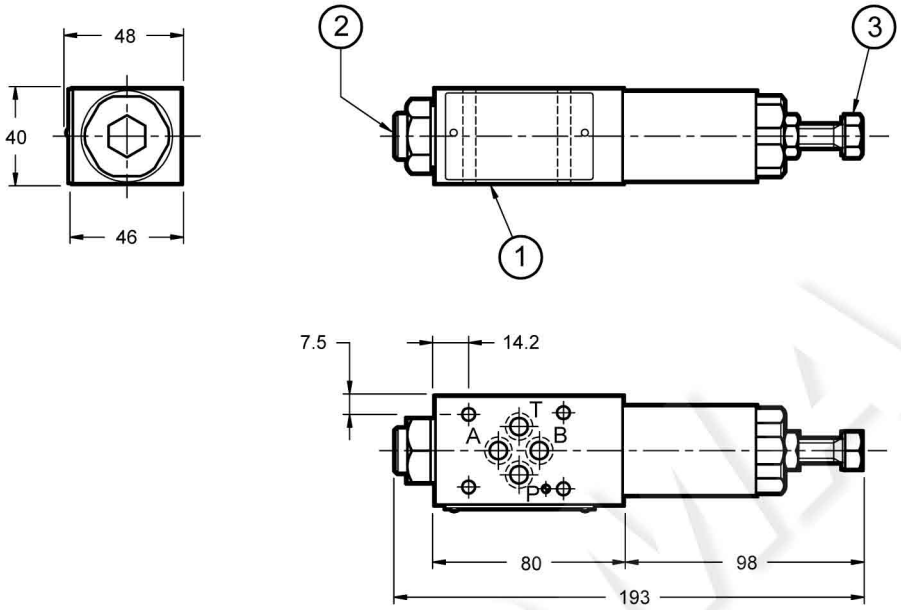
PRESSURE DROPS Δp - Q



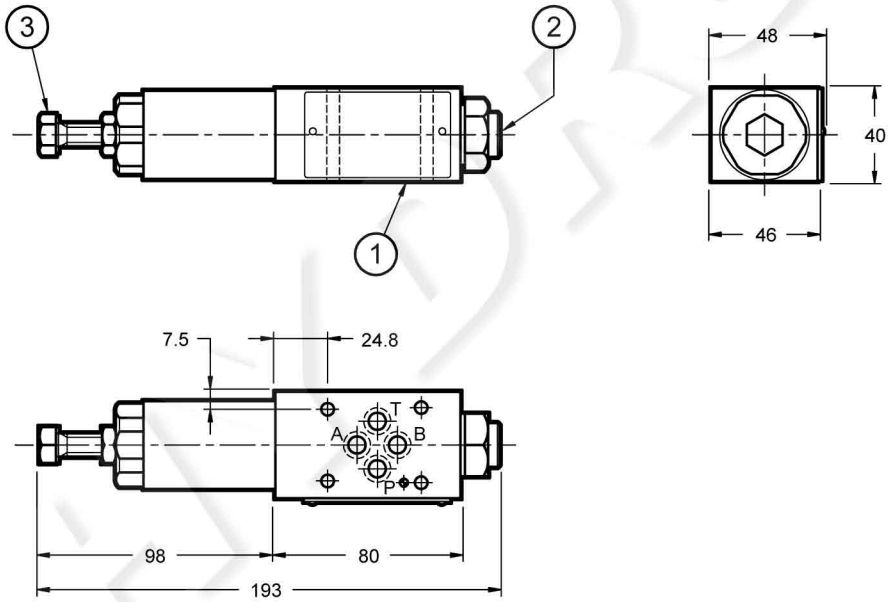
4 - OVERALL AND MOUNTING DIMENSIONS

dimensions in mm

PZM3-P
PZM3-PA
PZM3-PB



PZM3-RP
PZM3-RPA
PZM3-RPB



1	Mounting surface with sealing rings: 4 OR type 2037 (9.25x1.78) 90 Shore
2	Pressure gauge port 1/4" BSPP
3	Hexagonal head adjustment screw. Spanner 17. Rotate clockwise to increase pressure

5 - HYDRAULIC FLUIDS

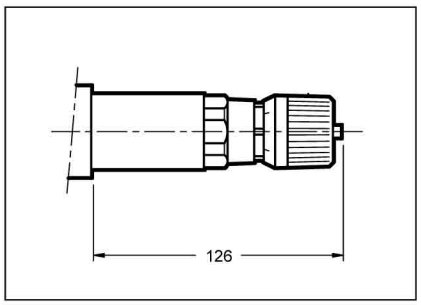
Use mineral oil-based hydraulic fluids HL or HM type, according to ISO 6743-4. For these fluids, use NBR seals. For fluids HFDR type (phosphate esters) use FPM seals (code V). For the use of other kinds of fluid such as HFA, HFB, HFC, please consult our technical department.

Using fluids at temperatures higher than 80 °C causes a faster degradation of the fluid and of the seals characteristics.The fluid must be preserved in its physical and chemical characteristics.

6 - ADJUSTMENT KNOB

Valves can be supplied with adjustment knob, which is engaged by pushing and twisting at the same time. When released, the knob disengages to secure the adjustment from involuntary tampering.

Add **CK3** in the identification code to order this version (see point 1).



HYDROMA