



# Z4M

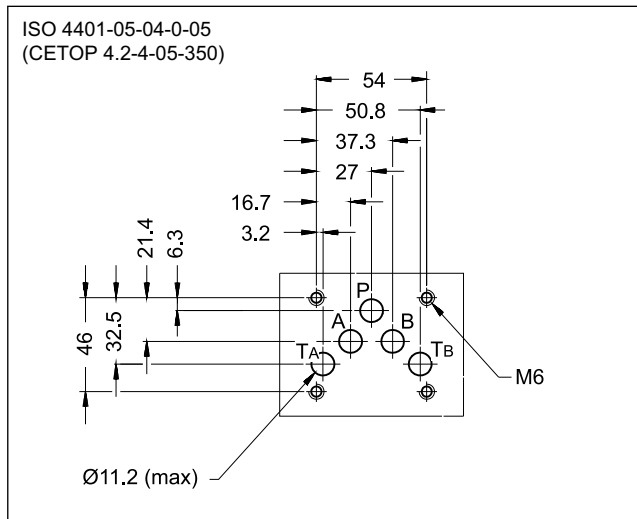
## PILOT OPERATED PRESSURE REDUCING VALVE

### SERIES 50

**MODULAR VERSION  
ISO 4401-05**

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

#### MOUNTING INTERFACE



#### OPERATING PRINCIPLE

- The Z4M valve is a pilot operated pressure reducing valve shaped as modular version with mounting surface according to ISO 4401 standards.
- It reduces pressure on secondary circuit branches, assuring stability of the controlled pressure and even changing the flow that passes through the valve.
- It can be assembled quickly under ISO 4401-05 directional solenoid valves without the use of pipes.
- It is supplied with a hex socket adjustment screw, locking nut and a travel limiting device for maximum adjustment.
- It is available in four different pressure adjustment ranges, up to 320 bar.

#### CONFIGURATIONS

(see hydraulic symbols table)

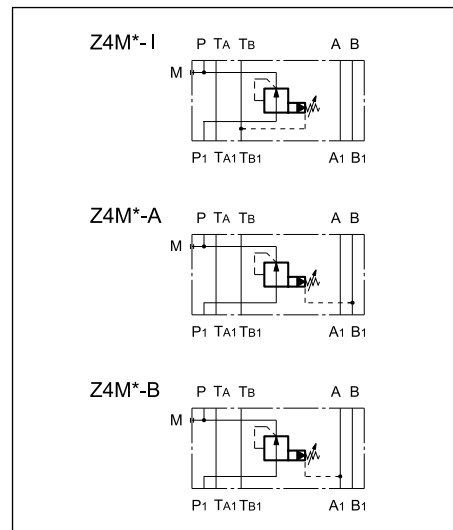
- Z4M\*-I: pressure reduction on line P - drainage connected to line T<sub>B</sub>.
- Z4M\*-A: pressure reduction on line A and full pressure on line B.
- Z4M\*-B: pressure reduction on line B and full pressure on line A.

#### PERFORMANCES

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

Maximum operating pressure: Z4M*-I Z4M*-A, Z4M*-B	bar	350 210
Maximum flow rate in the controlled line P	l/min	80
Maximum flow rate in the free lines		100
Drain flow rate		< 0,7
Ambient temperature range	°C	-20 / +60
Fluid temperature range	°C	-20 / +80
Fluid viscosity range	cSt	10 ÷ 400
Recommended effective viscosity	cSt	25
Fluid contamination degree	According to ISO 4406:1999 class 20/18/15	
Mass	kg	2,7

#### HYDRAULIC SYMBOLS



### 1 - IDENTIFICATION CODE

	<b>Z</b>	<b>4</b>	<b>M</b>	<b>-</b>	<b>/</b>	<b>/</b>	<b>50</b>	<b>/</b>	
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Pressure reducing valve ————

Size: ISO 4401-05 ————

Modular version ————

Pressure adjustment range: ————

3 = 5 ÷ 70 bar  
4 = 8 ÷ 140 bar  
5 = 10 ÷ 210 bar  
6 = 15 ÷ 320 bar (available only for I version)

Seals: omit for mineral oils  
**V** = viton for special fluids

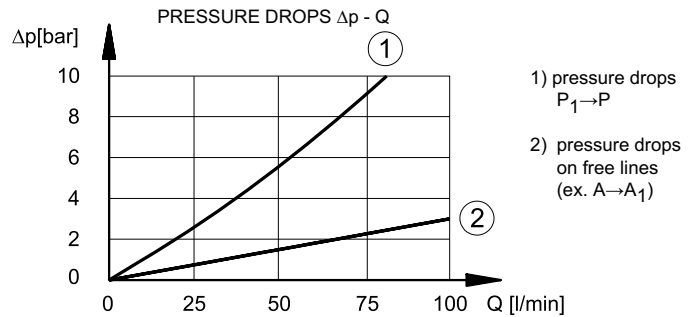
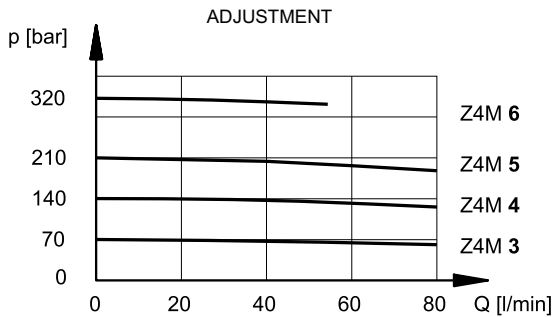
Series No. (the overall and mounting dimensions remain unchanged from 50 to 59)

**M1** = Adjustment knob.  
Omit for adjustment by socket hex screw.

Versions: **I**: pressure reduction on line P. Internal drain connected to line T<sub>B</sub>  
**A**: pressure reduction on line A and full pressure on line B  
**B**: pressure reduction on line B and full pressure on line A

### 2 - CHARACTERISTIC CURVES

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



### 3 - 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.

### 4 - OVERALL AND MOUNTING DIMENSIONS

dimensions in mm

1	Locking nut spanner 17
2	Socket hex adjustment screw: Allen key 5. Rotate clockwise to increase pressure
3	Mounting surface with sealing rings: 5 OR type 2050 (12.42x1.78) 90 Shore
4	Pressure gauge port 1/4" BSP
5	Adjustment knob <b>M1</b>