



# Z4M

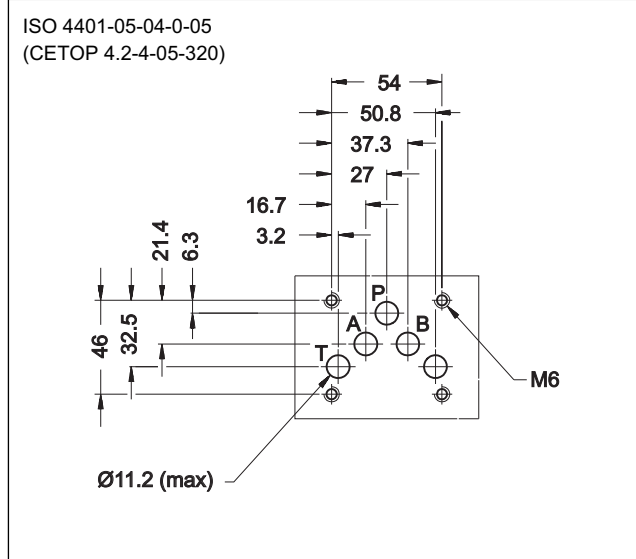
## PILOT OPERATED PRESSURE REDUCING VALVE

### SERIES 50

#### MODULAR VERSION ISO 4401-05 (CETOP 05)

**p** max 320 bar  
**Q** max (see table of performances)

#### MOUNTING INTERFACE



#### OPERATING PRINCIPLE

- The Z4M valve is a piloted pressure reducing valve made as a modular version with mounting surface according to the ISO 4401 (CETOP PR 121H) standards.
- It is used to reduce pressure on secondary circuit branches, assuring stability of the controlled pressure and even changing the flow that runs through the valve.
- It can be assembled quickly under the ISO 4401-05 (CETOP 05) directional solenoid valves without use of pipes.
- It is normally supplied with a countersunk hex adjustment screw, locking nut and maximum adjustment travel limiting device.
- It is available in four different pressure adjustment ranges up to 320 bar.

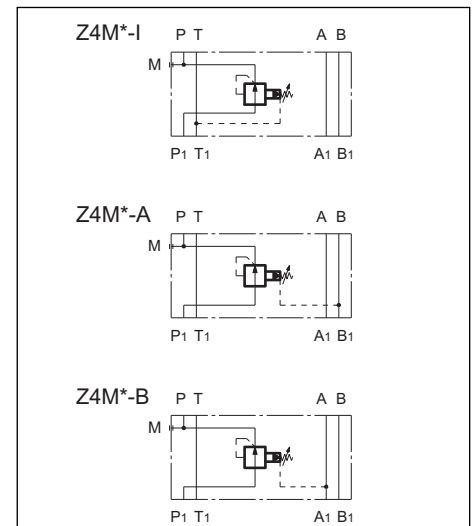
#### CONFIGURATIONS (see hydraulic symbols table)

- Z4M\*-I: pressure reduction on line P - drainage connected to line T.
- 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	bar	320
Maximum flow rate in the controlled line P		80
Maximum flow rate in the free lines	l/min	100
Drainage flow rate		≤ 0,07
Ambient temperature range	°C	-20 / +50
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	2,7

#### HYDRAULIC SYMBOLS



### 1 - IDENTIFICATION CODE

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

Size: ISO 4401-05 (CETOP 05) ————

Modular version ————

Pressure adjustment range: ————

**3** = 5 ÷ 70 bar  
**4** = 8 ÷ 140 bar  
**5** = 10 ÷ 210 bar  
**6** = 15 ÷ 320 bar

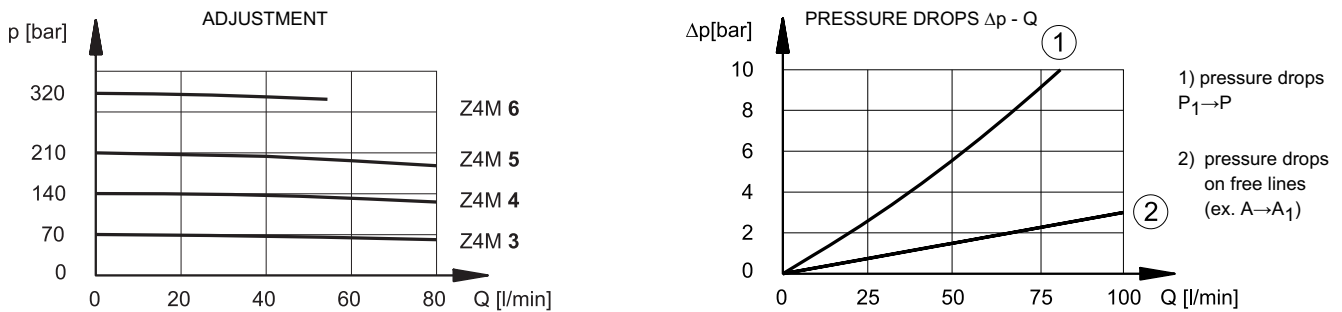
Seals: omit for mineral oils  
**V** = viton for special fluids

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

**M1** = Adjustment knob  
 (omit for adjustment with countersunk hex screw)

Configurations: **I**: pressure reduction on line P. Internal drainage connected to line T  
**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	Countersunk hex adjustment screw: Spanner 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