

Part number:



**HYDROMA**

HYDRAULICKÉ SYSTÉMY

**HIDROMA**  
SISTEMS

UKŁADY HYDRAULICZNE

**HYDROMA**

ГИДРАВЛИЧЕСКИЕ СИСТЕМЫ



# MZD

## DIRECT OPERATED THREE-WAY PRESSURE REDUCING VALVE SERIES 50

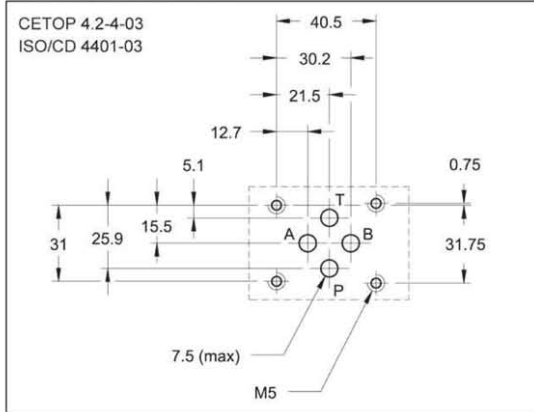
### MODULAR VERSION

### CETOP 03

p max 350 bar

Q max (see performance ratings table)

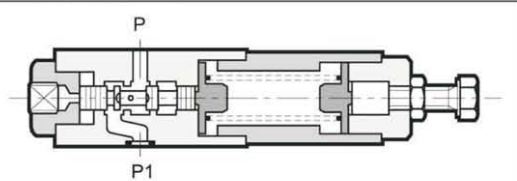
### MOUNTING INTERFACE



### CONFIGURATIONS (see Hydraulic symbols table)

- MZD\*: pressure reduction on line P, drainage connected with line T.
- MZD\*/A: pressure reduction on line A toward the actuator and maximum pressure in line B, drainage connected with line T.
- MZD\*/B: pressure reduction on line B toward the actuator and maximum pressure in line A, drainage connected with line T.

### OPERATING PRINCIPLE

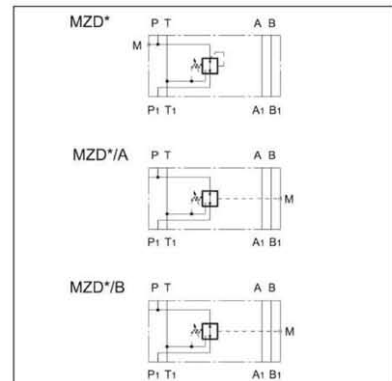


- The MZD valve is a three-way spool type direct operated pressure reducing valve. It is normally open in the rest position and the hydraulic fluid passes freely from the P<sub>1</sub> line to the P line. The spool is subjected to the line P pressure on one side, and on the other side by the adjustment spring. When the pressure in line P exceeds the value set by the spring, the valve closes until the pressure in P (reduced) equals the calibrated value.
- The valve construction provides good adjustment sensitivity with reduced drainage flow. The drainage is connected to line T inside the valve.
- 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.
- It is made as a modular version with ports according to the CETOP and ISO standards and can be assembled quickly, without use of pipes, under the MD1D solenoid valves (see catalogue 41 200).
- It is normally supplied with a hexagonal head adjustment screw. Upon request, it can be equipped with a SICBLOC adjustment knob.

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

Maximum operating pressure	bar	350
Maximum pressure on port T	bar	10
Maximum flow rate in the controlled lines	l/min	50
Maximum flow rate in the free lines	l/min	75
Drainage flow rate	l/min	≤ 0,08
Ambient temperature range	°C	-20 ÷ +50
Fluid temperature range	°C	-20 ÷ +70
Fluid viscosity range	cSt	2,8 ÷ 380
Recommended filtration	µm absolute	≤ 25
Recommended viscosity	cSt	25
Mass	kg	1,4

### HYDRAULIC SYMBOLS



## 1 - IDENTIFICATION CODE

<b>M</b>	<b>Z</b>	<b>D</b>	<b>/</b>	<b>/</b>	<b>/</b>	<b>50</b>	<b>/</b>	<b>/</b>
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CETOP 03 size  
Modular version

Direct operated pressure reducing valve

Pressure adjustment range:  
**2** = 3 ÷ 35 bar    **4** = 30 ÷ 140 bar  
**3** = 10 ÷ 70 bar    **5** = 50 ÷ 280 bar

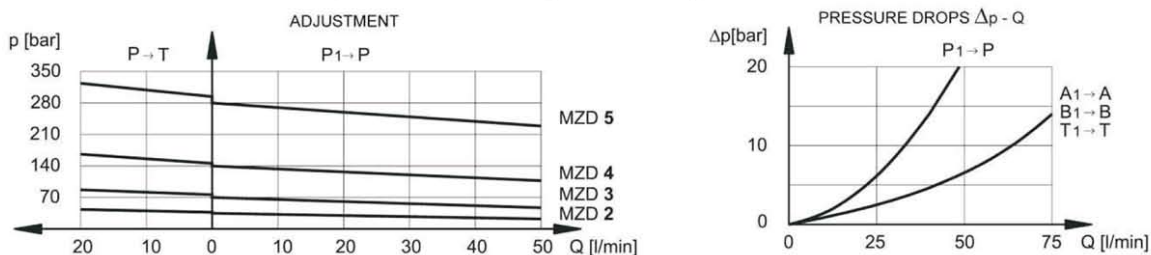
Configurations  
 (omit for MZD with control on P)  
**A**: pressure reduction on line A and full pressure on line B  
**B**: pressure reduction on line B and full pressure on line A

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

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

**M** = Adjustment with SICBLOC knob  
(omit for adjustment with hexagonal head screw)

## 2 - CHARACTERISTIC CURVES (values obtained with viscosity of 36 cSt at 50°C)



## 3 - HYDRAULIC FLUIDS

Use mineral oil-based hydraulic fluids, with the addition of suitable anti-frothing and anti-oxidizing agents. For the use of other types (water glycol, phosphate esters and others), please consult our technical department.

## 4 - OVERALL AND MOUNTING DIMENSIONS

1	Mounting surface with sealing rings: 4 OR type 2037
2	Pressure gauge port 1/4" BSP
3	Hexagonal head adjustment screw. Spanner 17. Rotate clockwise to increase pressure
4	SICBLOC knob. To operate, push and rotate at the same time.

dimensions in mm