



MVR

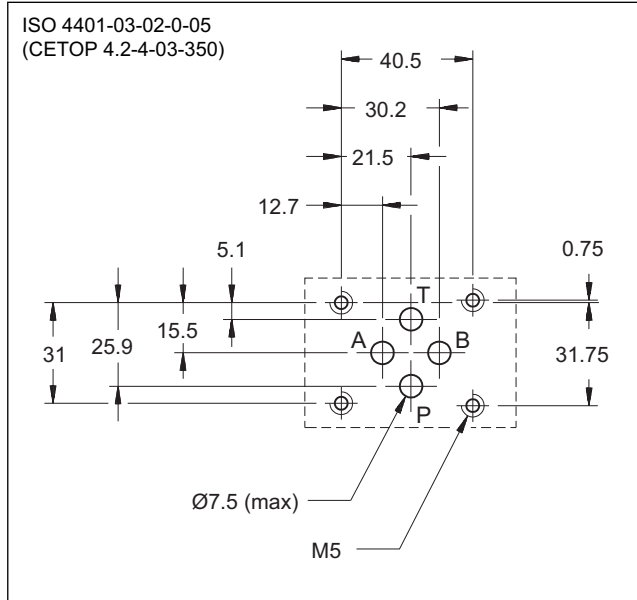
DIRECT CHECK VALVE

SERIES 51

MODULAR VERSION ISO 4401-03

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

MOUNTING INTERFACE



OPERATING PRINCIPLE

- The MVR valve is a direct check valve made as a modular version with mounting surface according to the ISO 4401 standards.
- It is used to avoid oil backflows and self-emptying of lines, or to generate back-pressures.
- It can be assembled quickly under the ISO 4401-03 directional solenoid valves without the use of pipes, using suitable tie-rods or bolts.
- It is available in versions with the check valve only on single line (P, T, A or B) or on both lines (P and T or A and B).

CONFIGURATIONS (see hydraulic symbols table)

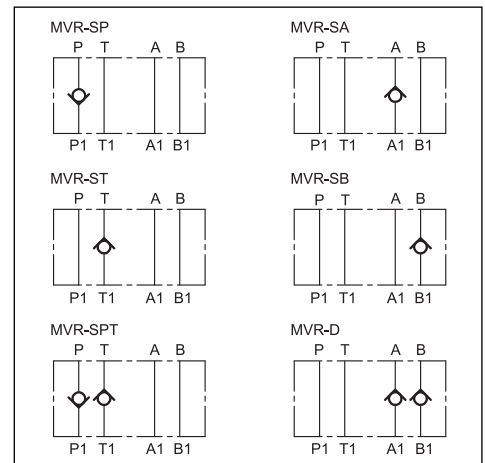
- MVR-SP: check valve on line P
- MVR-SA: check valve on line A
- MVR-ST: check valve on line T

- MVR-SB: check valve on line B
- MVR-SPT: check valve on lines P and T
- MVR-D: check valve on lines A and B

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

Maximum operating pressure	bar	350
Check valve cracking pressure		3 - 0,5 - 5
Maximum flow rate in controlled lines	l/min	50
Maximum flow rate in the free lines		75
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

HYDRAULIC SYMBOLS



1 - IDENTIFICATION CODE

<div style="font-size: 2em; font-weight: bold; letter-spacing: 0.5em;">M V R</div>	-	/	51	/	
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Size: ISO 4401-03 Modular version.

Check valve _____

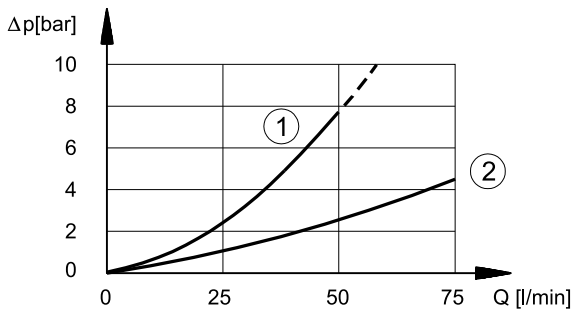
Cracking pressure: _____
omit for standard cracking pressure = 3 bar
1 = 0,5 bar
3 = 5 bar

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

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

SP: check valve on line P
SA: check valve on line A
SB: check valve on line B
ST: check valve on line T
SPT: check valve on lines P and T
D : check valve on lines A and B

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



1) pressure drops on controlled lines
2) pressure drops on free lines

NOTE: check valve cracking pressure must be added to the values indicated in the curve 1 in the diagram

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	Mounting surface with sealing rings: 4 OR type 2037 (9.25x1.78) - 90 Sh
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