



## FLOW CONTROL VALVE TVD

- NG 6
- Up to 350 Bar [5076 PSI]
- Up to 16 l/min [4,23 GPM]
- Two - way pressure compensated.
- Connecting dimensions to ISO 6264.
- Operating elements: rotary knob / roller.
- With built - in non-return valve.
- Without built - in non-return valve.



TVD-6

### Operation

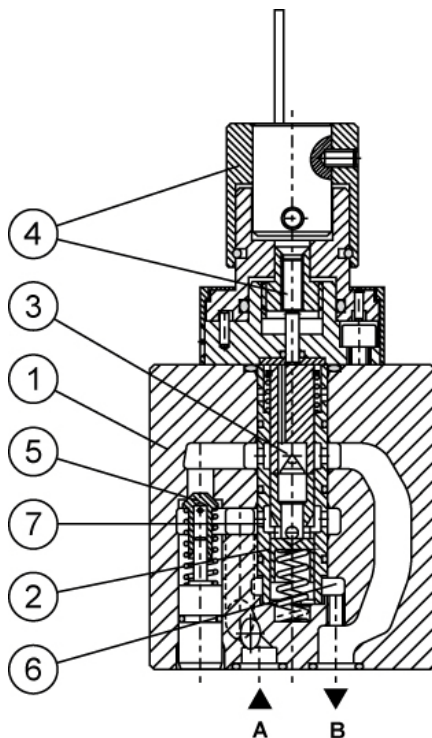
Flow control valves type TVD are used to set the flow of the hydraulic fluid. The flow depends neither on inlet nor on outlet pressures, which means that the flow setpoint valve remains constant also with a change of the pressure drop.

These valves consist of a housing (1), a pressure compensator (2), an orifice (3), a setting element (4), and a non-return valve (5).

The hydraulic fluid flow is adjusted by a setting element (4) which moves the orifice (3) to the corresponding open position. The flow of the fluid is throttled in the direction from A to B. Maintaining of the constant flow towards the user is provided by the pressure compensator (2). The fluid flows through the bore (6) under the pressure compensator, acting on it by the pressure of the line B. From the opposite side, the pressure compensator is acted upon by the pressure which is before the orifice (3). The pressure compensator shifts the working position. A pressure built - up in the line B provokes the movement of the pressure compensator to the increased open position. This enlarges the gap between the bores (7), the orifice (3) and the user. On the contrary, the pressure compensator shifts to the closed position if there is a pressure rise in the line A. The hydraulic fluid flow is constant, and does not depend on the loads on the user.

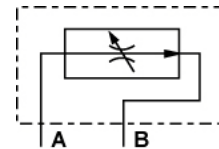
The non-return valve (5) provides a free flow of the hydraulic fluid in the direction from B to A.

The flow control valve without the non-return valve (5) provides operation of the valve only in the direction of the flow from A to B..

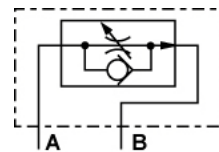


### Hydraulic symbol

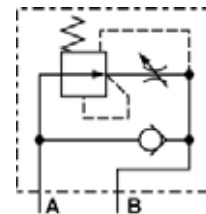
TVD-6



TVD-6-NV



Detailed



Throttle with Check valves

Flow control valves pressure compensated

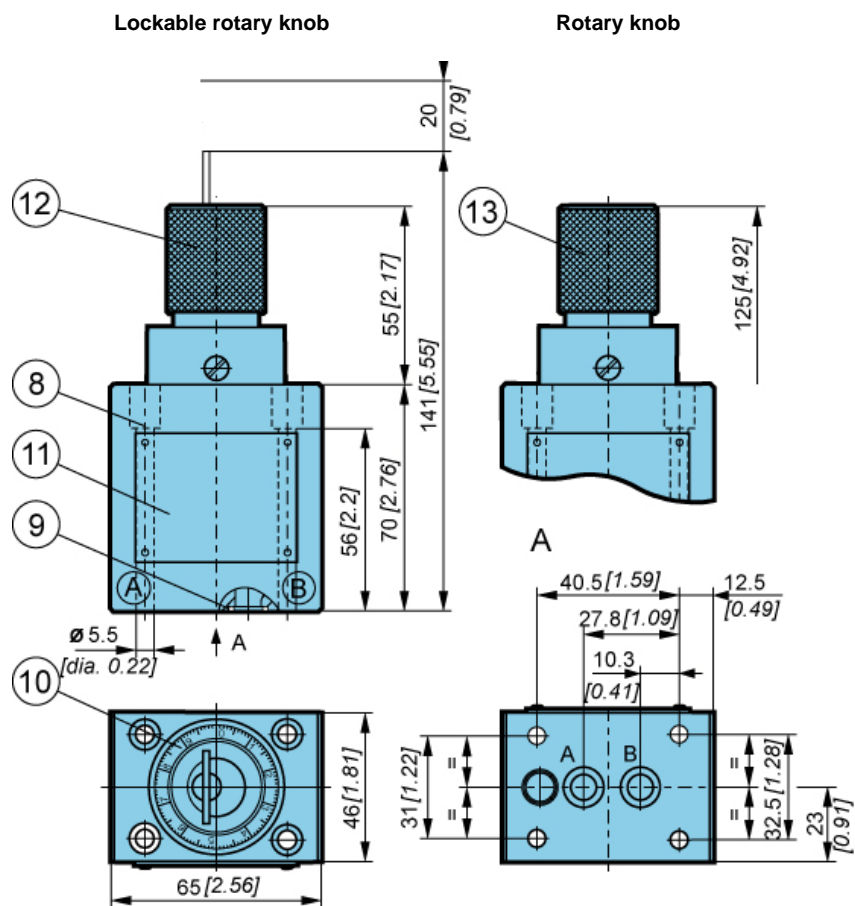
Flow dividers



Features

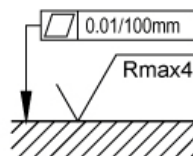
Type		TVD-6-0,9	TVD-6-2	TVD-6-4	TVD-6-8	TVD-6-16
Flow rate	l/min [GPM]	0,9 [0,23]	2 [0,53]	4 [1,06]	8 [2,11]	16 [4,23]
Operating pressure	Bar [PSI]	100 [1450,38]			350 [5076,32]	
Min. pressure drop	Bar [PSI]	4 [58,01]		10-12 [145-174]	10-14 [145-203]	10-16 [145-232]
Oil temperature range	°C [°F]	-20 to +70 [-4 to +158]				
Viscosity range	mm <sup>2</sup> /s [SUS]	15 to 380 [69,5 to 1760]				
Filtration	NAS 1638	8				
Mass	kg [lbs]	1,6 [3,53]				

Dimensions



- 8. 4 pcs fixing screws M5 x 65 to ISO 4762-10.9 tightening torque Md=9 Nm
- 9. O-ring 9,25 x 1,78
- 10. Scale for setting read - out
- 11. Nameplate
- 12. Lockable rotary knob
- 13. Rotary knob

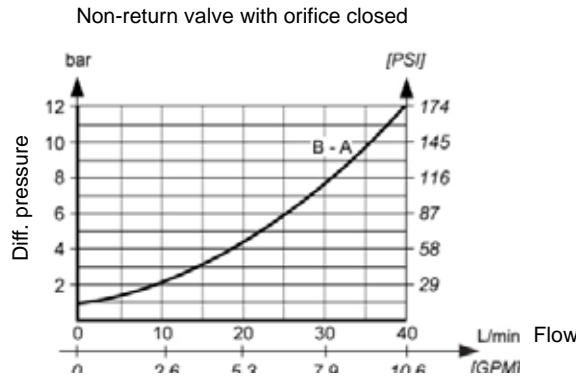
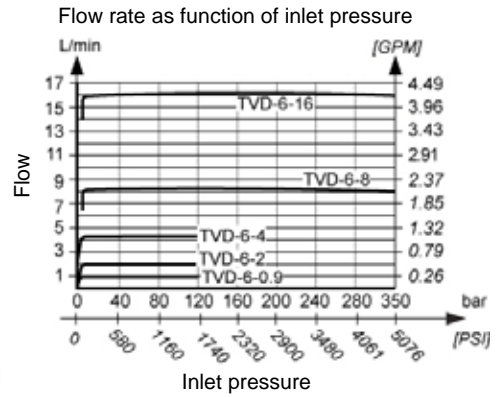
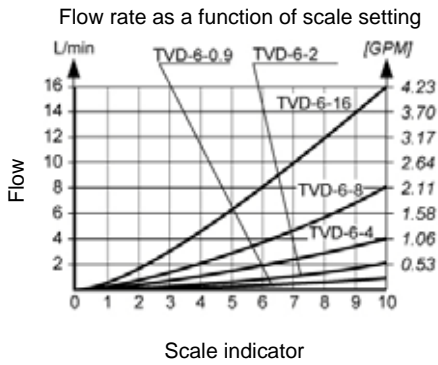
Required quality of the mating surface





**ΔP-Q Performance curves**

Measured at 50°C [122°F] and viscosity of 32 mm<sup>2</sup>/s [148 SUS].



**Model code**

T V D - 6 - [ ] - [ ] - [ ] - [ ] \*

**Flow rate l/min [GPM]**

0,9 [0,24]	09
2 [0,53]	2
4 [1,06]	4
8 [2,11]	8
16 [4,23]	16

**Non-return valve**

without non-return valve	No designation
with non-return valve	NV

**Operating element**

Lockable rotary knob	No designation
Rotary knob	R

**Seals type**

NBR seals for mineral oil HL,HLP to DIN 51524	No designation
FPM seals for HETG, HEES, HEPG to VDMA 24568 and ISO 15380	E

**Special requirements to be briefly specified**

Throttle with Check valves

Flow control valves pressure compensated

Flow dividers