FLOW DIVIDER DTP

- NG 6, 10
- Up to 350 Bar *[5.076 PSI]*
- Up to 70 l/min *[18,49 GPM]*

- Dividing and combining of flow independent of pressure.
- Dividing and combining ratio: 50 %/ 50 %
- Direct in-line mounting.
- Threaded connections to ISO 9974 (Metric), ISO 1179 (BSPP/Gas), ISO 11926 (UNF).

DTP-10, DTP-6

Operation

The flow divider DTP has two functions, dividing and combining of fluid flow. The regulator divides the fluid flow in the direction from A to B and C, and combines flows in the direction from B and C to A. The dividing / combining ratio is 50 % : 50 %, independent of pressure in respective pipeline,B or C.

The regulator consists of a housing (1), two dividing spools (2) and three weak springs (3).

Division of flow: The fluid flow in the direction from A to B and C.
The flow in chamber A is divided and flows through the orifices (5) with constant cross-section and throttles (4) into chambers B and C. The pressure drop through the orifices (5) depends on the pressure load. The increase of flow towards one of both chambers provokes increased pressure drop through the orifices. The pressure drop generates the pressure force which shifts both spools (2). Consequently, the throttles (4) are reduced, and the pressure drop of fluid through the throttles increases. The spools keep on moving until the pressure drops through the orifices (5) are balanced. Consequently, both fluid flows are balanced, too.

Combining of flows: The oil flow in the direction from B and C to A. The operation is identical as at dividing of flow. The divider combines both flows in the ratio 50% to 50%.

.The principle of operation depends on the pressure drop, which again depends on the fluid flow. For this reason the divider functions properly only within the defined flow range. Limitation of maximal flow - rate of pressure drop, limitation of minimal pressure - dividing and combining accuracy

Hydraulic symbol
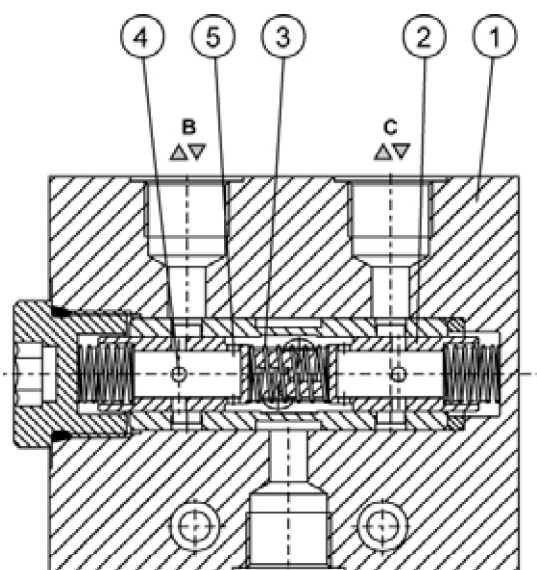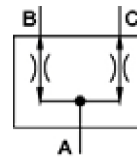
Features

Type		DTP-6-20	DTP-6-35	DTP-6-50	DTP-10-70
Min. flow rate	l/min *[GPM]*	8 *[2,11]*	12 *[3,17]*	16 *[4,23]*	35 *[9,25]*
Max. flow rate	l/min *[GPM]*	20 *[5,28]*	35 *[9,25]*	50 *[13,21]*	70 *[18,49]*
Max. pressure range	Bar *[PSI]*	350 *[5076]*			
Dividing	%	50 : 50			
Flow dividing accuracy	%	±5			
Oil temperature range	°C *[°F]*	-20 to +70 *[-4 to +158]*			
Viscosity range	mm²/s *[SUS]*	15 to 380 *[59 to 716]*			
Filtration	NAS 1638	8			
Mass	kg *[lbs]*	1,7 *[3,75]*			2,65 *[5,84]*

Dimensions

DTP-6

DTP-10
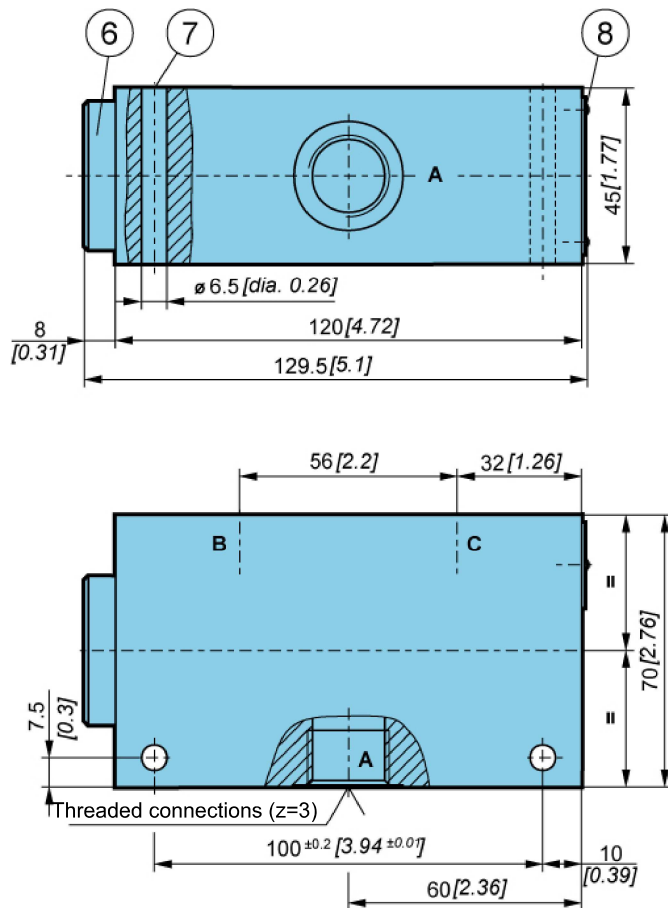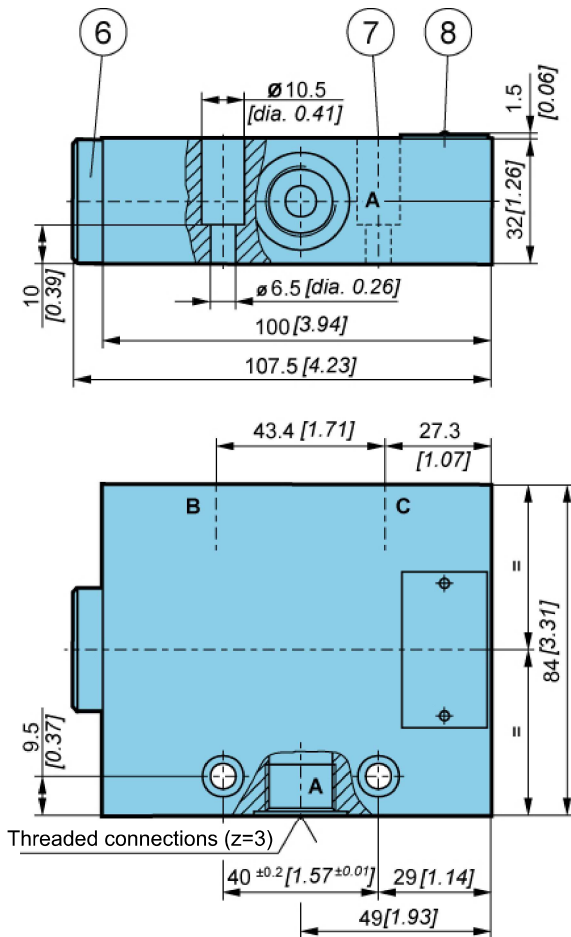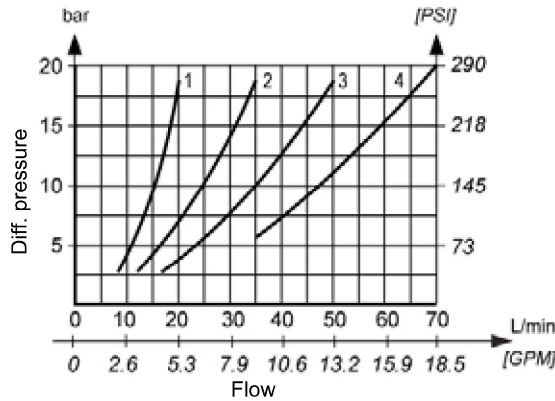

6. Valve cap
7. Two fixing holes for screws ISO 4762
   DTP-6 = M6 x 20-10.9
   DTP-10 = M6 x 55-10.9
   Tightening torque Md = max.15 Nm
8. Nameplate

∆P-Q Performance curves

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

1. DTP-6-20
2. DTP-6-35
3. DTP-6-50
4. DTP10-70

Model code

D T P - ☐ - ☐ - ☐ - ☐ - ✱

Size

Size	
Size 6	**6**
Size 10	**10**

Flow rate l/min *[GPM]*

	8 - 20 *[2,11 - 5,28]*	**20**
DTP-6	12-35 *[3,17 - 9,25]*	**35**
	16 - 50 *[4,23 - 13,21]*	**50**
DTP-10	35 - 70 *[9,25 - 18,49]*	**70**

Threaded connection

	M 18x15	No designation
DTP-6	G 3/8	**G 3/8**
	3/4-16 UNF-2B	**SAE 8**
	M 22x1,5	**M 22**
DTP-10	G 1/2	**G 1/2**
	7/8-14 UNF-2B	**SAE 10**

Seal 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