

Pressure relief valve

Type DV700

NG 4 Bieri and NG 6 ISO
up to 700 bar

Features

- Direct operated valve
- High degree of pressure stability
- Safe operation
- Flat characteristic
- Delivered only with released spring

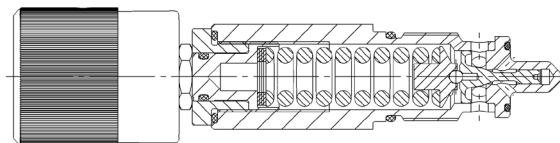


Applications

- Pressure limitation in a dynamic pressure system

Design

- As cartridge
- As modular valve with one or two cartridges
- Seat construction
- The system pressure can be set to the required pressure via the adjusting spindle
- Pressure adjustment possible over the entire pressure range
- Protection of the pre-set maximum pressure by lock nut possible
- Stable control behaviour thanks to damping piston



Technical data

Hydraulic fluid	Mineral oil according to DIN 51524 (other fluids on request)	
Fluid temperature range	- 20 to 80 °C	
Ambient temperature range	- 30 to 50 °C	
Viscosity range	5 to 400 mm ² /s	
Porting	NG 4 according to Bieri standard NG 6 according to DIN 24340/ ISO 4401/ CETOP RP 121 H	
Max. operating pressure connection P, A, B	700 bar	
Max. operating pressure connection T	350 bar	
Max. flow rate	NG 4 12 l/min NG 6 25 l/min	
Filtration (recommendation)	According to NAS 1638, class 6 or ISO/ DIN 4406 17/15/12	
Weight	See standard design	
Material/ surface treatment	Housing	Steel, galvanized, chromated
	Cartridge	Steel, corrosion resistant
	Adjusting knob	Plastic

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Type code

Example		DV	700	-	6	-	P	-	350	-	D	-	V	-	A		00
Pressure relief valve																	
Type	700																
Size	6 4B																
Design																	
E	Cartridge																
Modular subplate from - to:																	
	P	P - T															
	A	A - T															
	B	B - T															
	AB	A - T and B - T															
	PA	P - T and A - T															
Starting block for NG4 valve bank:																	
	G1/4VR	Connection size G1/4															
	G3/8VR	Connection size G3/8															
Max. setting pressure	350 bar 700 bar																
Actuation type	D	turning handle															
	P	lead sealing															
Seal material	V	FKM															
	other seal materials on request																
		Special design 01 ... 99 (00 for standard)															
		Part index Please leave it blank For internal purposes															
		Design revision For internal purposes															

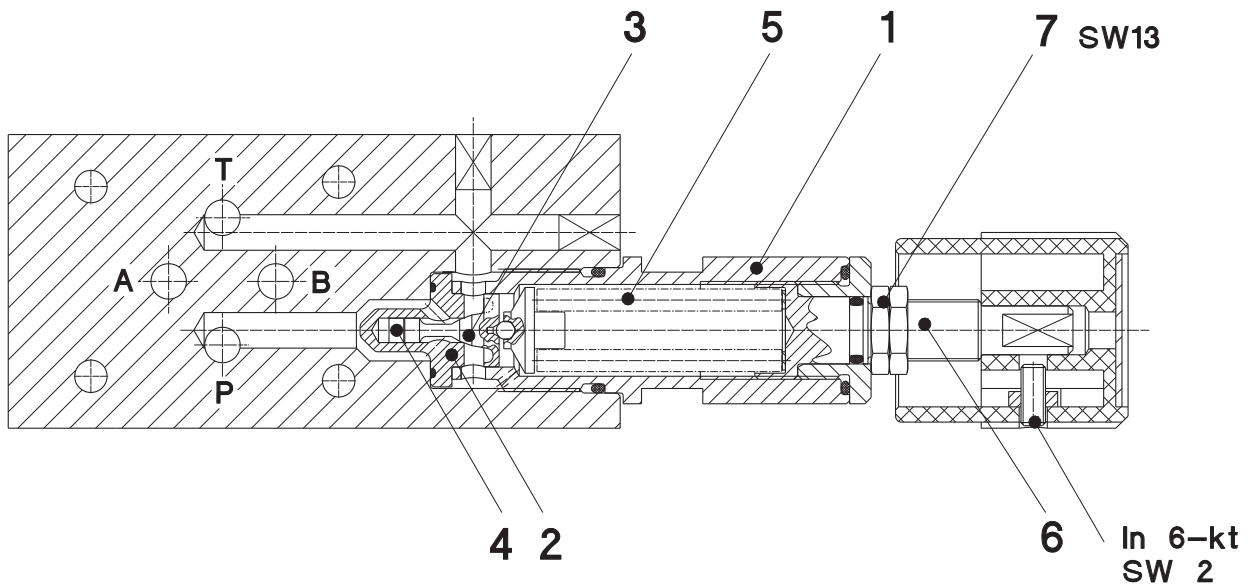
Function

The valve consist of a cartridge (1), seat (2), taper (3) with dampening piston (4), spring (5), adjusting spindle (6) and lock nut (7).

The spring pushes the taper onto the valve seat. The system pressure in the P-line acts on the taper.

If the pressure raises above the set pressure via the spring the taper opens and the hydraulic medium flows from port P to tank.

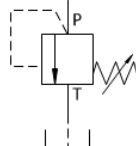
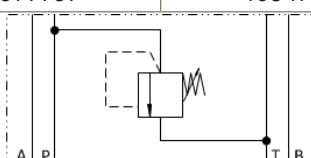
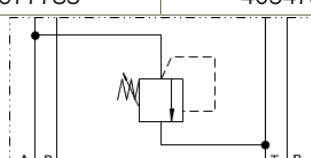
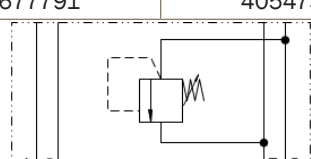
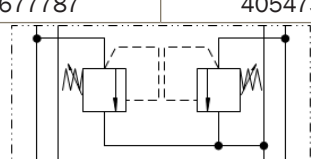
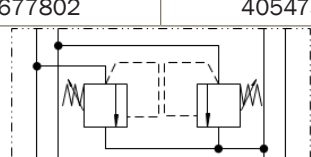
If the pressure in Port P again falls below the preset value, the poppet closes again and separates the port P from port T.



Standard design NG4

Actuation type	Turning handle	Lead sealing
Max. setting pressure	700 bar	
Design	G1/4VR	
Part No.	4034777	4034781
Symbol		
Weight	1,2 kg	
Design	G3/8VR	
Part No.	4034778	4034782
Symbol		
Weight	1,2 kg	

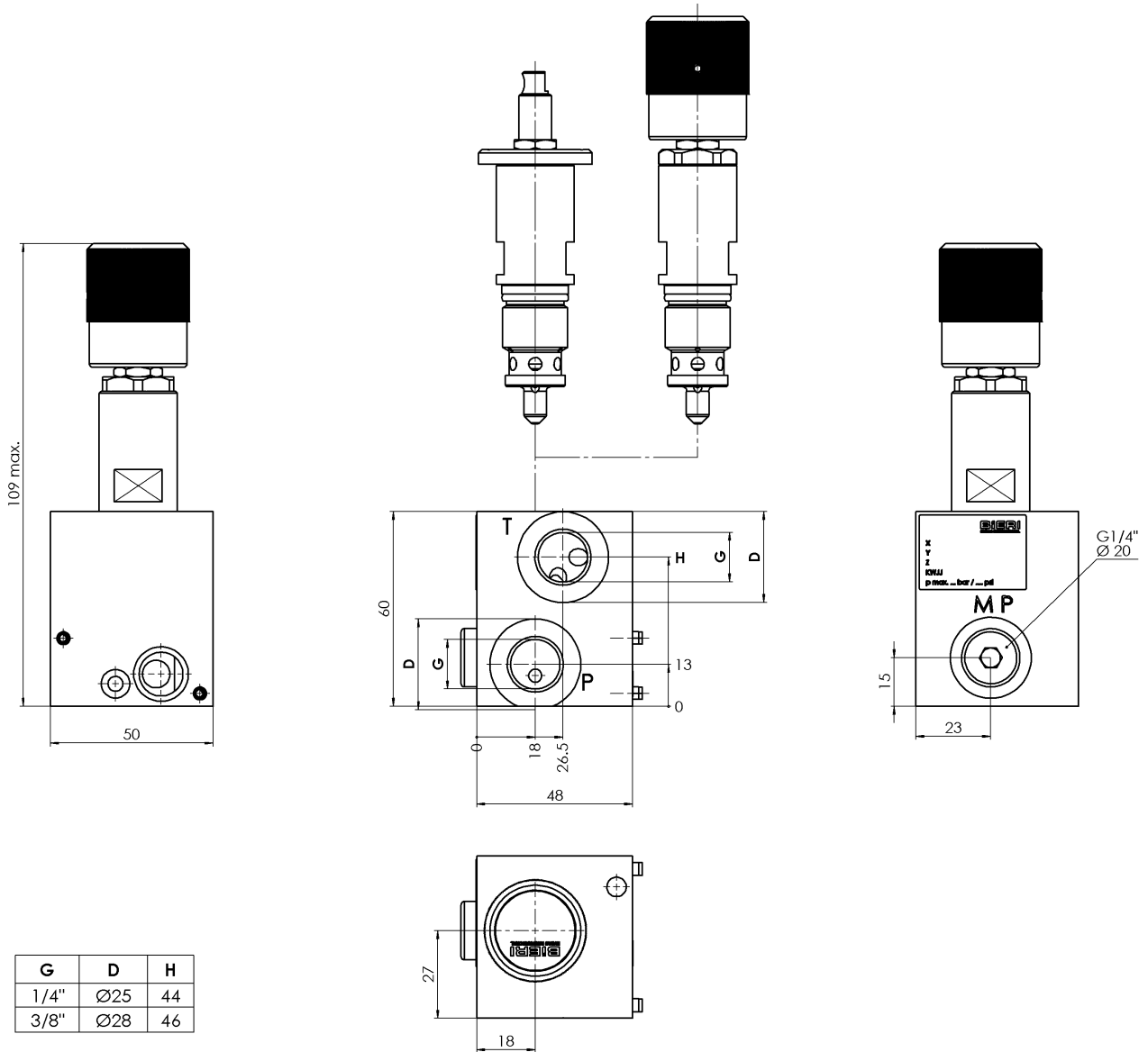
Standard design NG6

Actuation type	Turning handle		Lead sealing	
Max. setting pressure	350 bar	700 bar	350 bar	700 bar
Design	E			
Part No.	3677793	3677794	4001031	3851977
Symbol				
Weight	0,2 kg			
Design	P			
Part No.	3677796	3677797	4054731	4031721
Symbol				
Weight	1.6 kg			
Design	A			
Part No.	3677780	3677783	4054732	4054733
Symbol				
Weight	1.6 kg			
Design	B			
Part No.	3677789	3677791	4054734	4054735
Symbol				
Weight	1.6 kg			
Design	AB			
Part No.	3677786	3677787	4054736	4031925
Symbol				
Weight	2.0 kg			
Design	PA			
Part No.	3677799	3677802	4054737	4054738
Symbol				
Weight	2.0 kg			

Type DV700

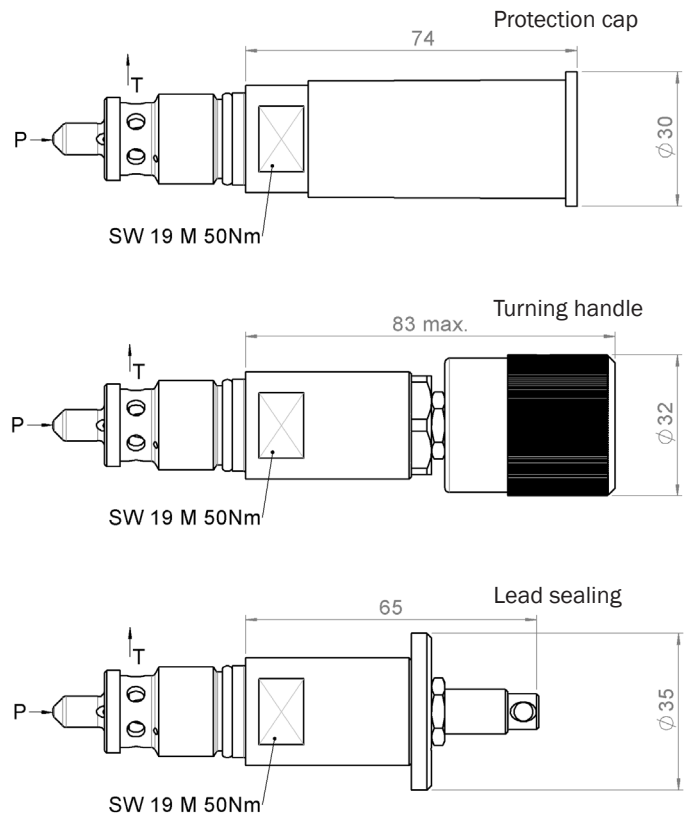
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Dimensional drawings NG4

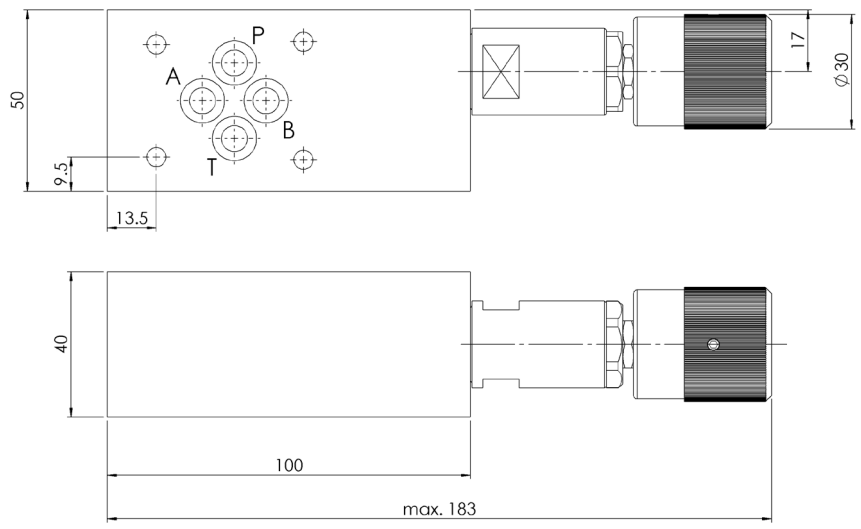


Dimensional drawings NG6

Cartridge



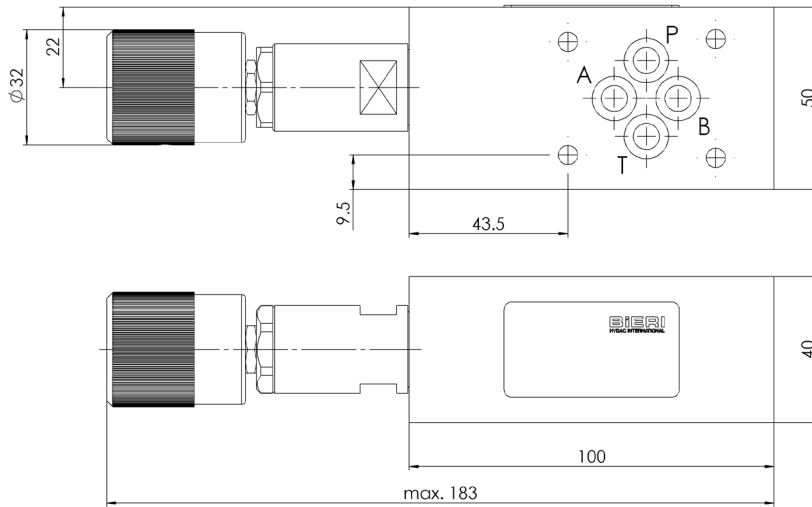
Modular subplate from P to T



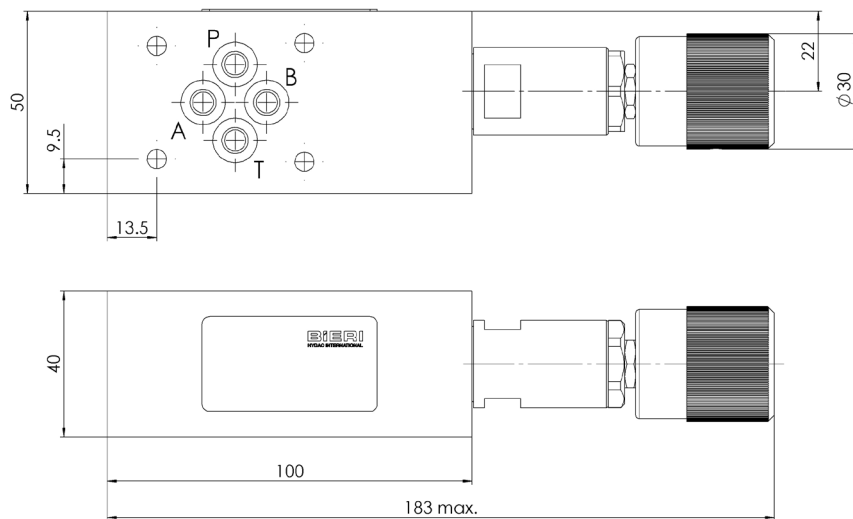
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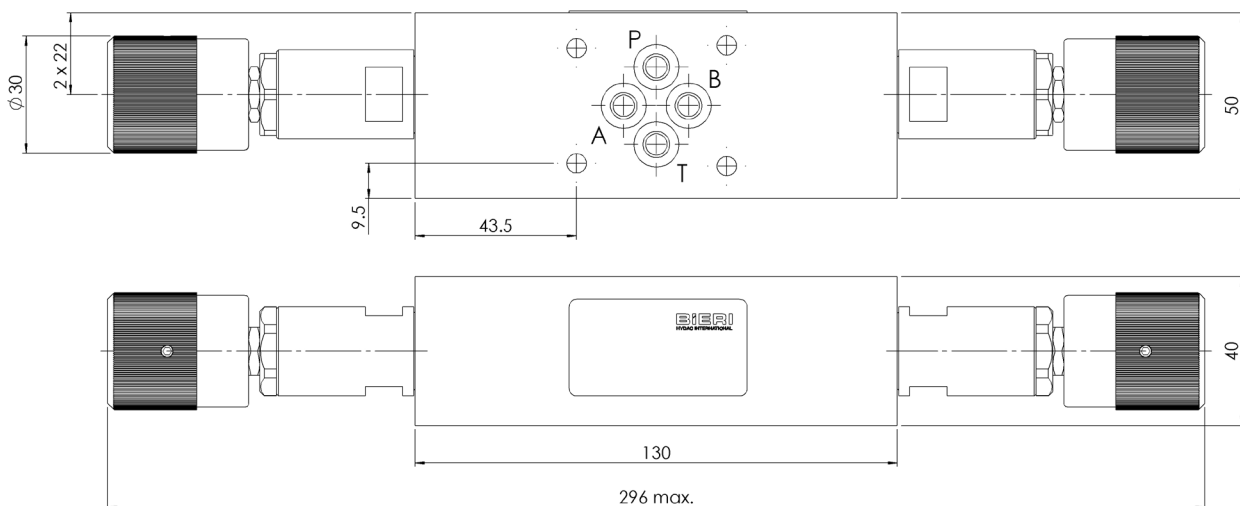
Modular subplate from A to T



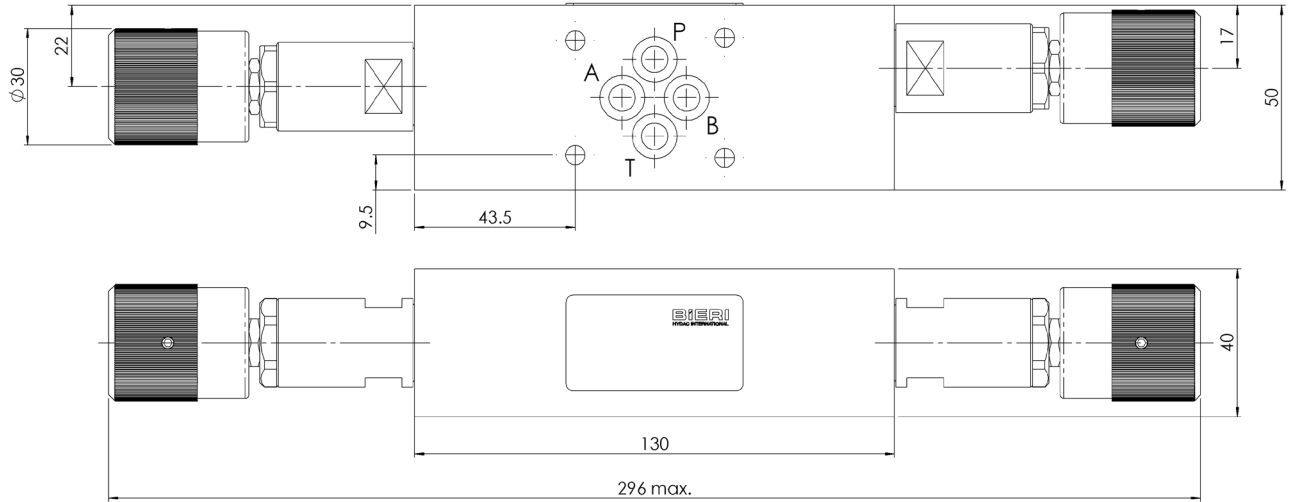
Modular subplate from B to T



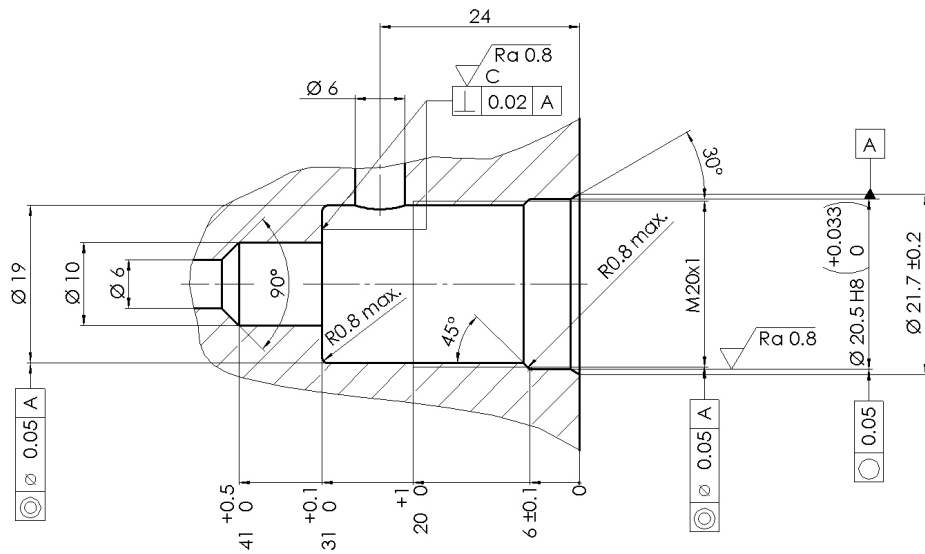
Modular subplate from A to T and B to T



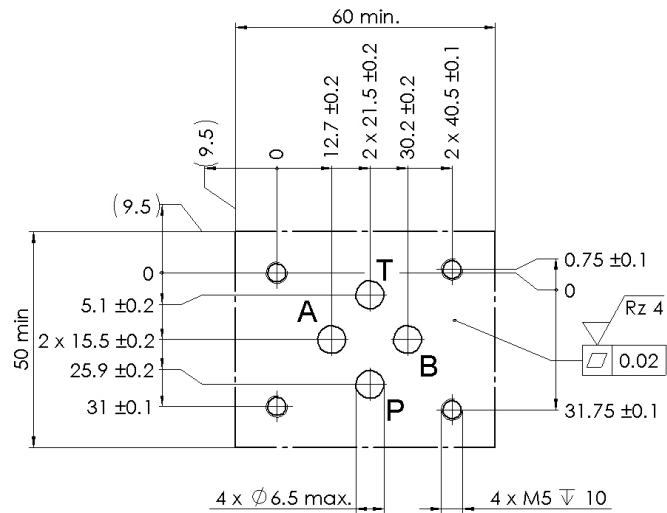
Modular subplate from P to T and A to T



Cartridge cavity



Drilling pattern



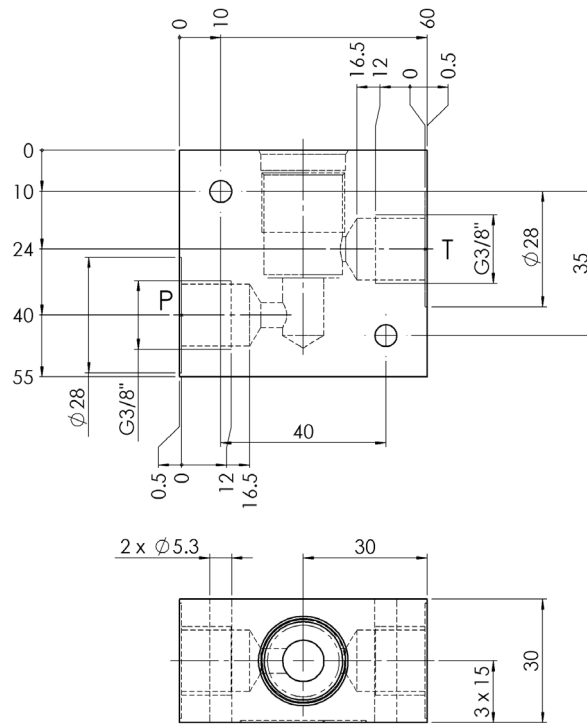
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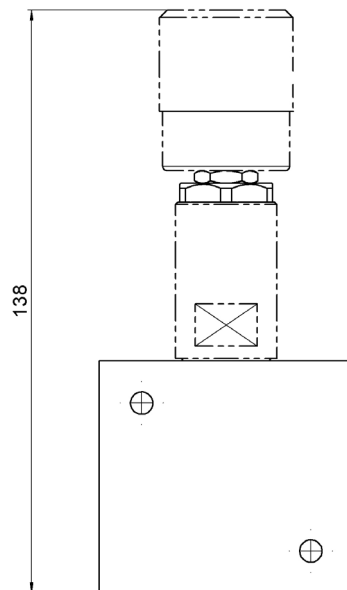
Valve block for in-line mounting

Type	Max. operating pressure	Part No.
VKR-6	700 bar	3678841

Dimensional drawing



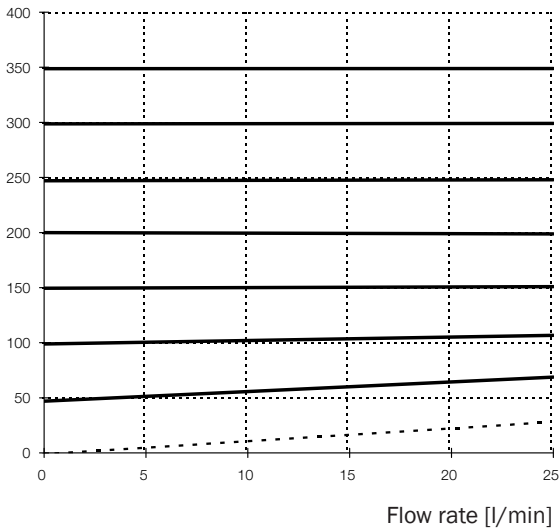
Dimensional drawing with pressure relief cartridge (Cartridge not included in scope of supply)



Characteristics

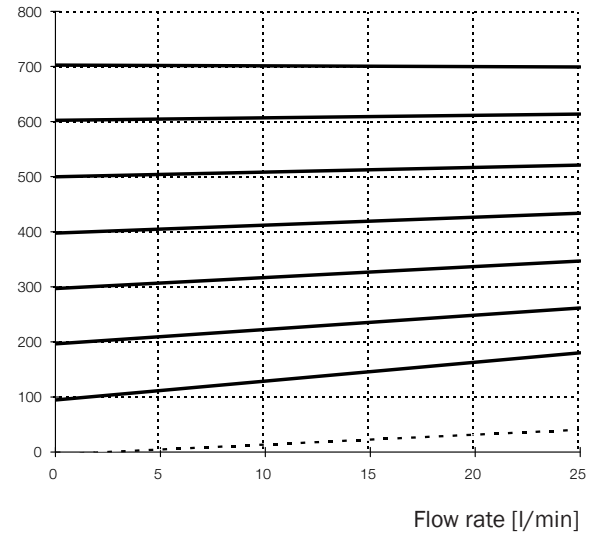
Measured at $v = 32 \text{ mm}^2/\text{s}$, $T = 40^\circ\text{C}$

Setting pressure [bar]



---- Min. setting pressure
— Max. setting pressure 350 bar

Setting pressure [bar]



---- Min. setting pressure
— Max. setting pressure 700 bar

Tie bolts/ fixation screws and subplates
see technical data sheet AP700 / RP700 / EP700!