

Pressure relief valves

Type DB500/700/1000

NG 6

up to 25 l/min, up to **1000 bar**

Features

- Directly operated
- High degree of pressure stability
- Safe function
- Flat characteristic
- Preset valves on request
- Back pressure compensated version available
- Poppet tight

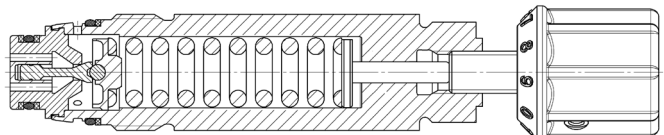


Applications

- Pressure limitation in a dynamic pressure system

Design

- As cartridge
- As panel mount for mounting directly into the tank
- As modular valve with one cartridge
- Seat construction
- The system pressure can be set to the required pressure via the adjusting spindle
- Pressure adjustment possible over the entire pressure range
- Fixing of the pre-set maximum pressure by lock nut
- Stable control behaviour thanks to damping piston



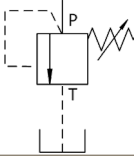
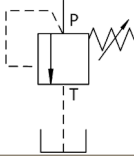
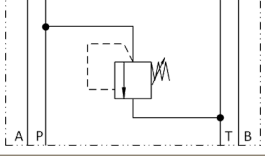
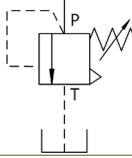
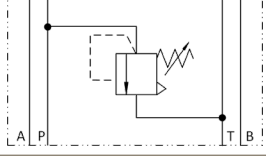
Technical data

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	1000 bar:	NG 6 acc. to Bieri standard
	500 and 700 bar:	NG 6 acc. to DIN 24340 / ISO 4401 / CETOP RP 121 H
Max. operating pressure connection P, A, B	500, 700 or 1000 bar	
Max. operating pressure connection T	350 bar, nominal pressure with back pressure compensated version	
Max. flow rate	1000 bar:	16 l/min
	500 and 700 bar:	25 l/min
Filtration (recommendation)	according to NAS 1638 class 6 resp. ISO / DIN 4406 17/15/12	
Weight	see overview "Product information"	
Material	modular subplate:	steel zinc-nickel coated
	cartridge body:	stainless steel
	sealing cap:	plastic

Type code

Example	DB	1000	-	6B	-	P	-	1000	-	F	-	A	-	V	-	A		00
Pressure relief valves																		
Size	500 bar 700 bar 1000 bar																	Design 00 ... 99 For internal purposes
Nominal size	6 ...																	Index Please leave blank For internal purposes
Modular subplate valve																		Design revision For internal purposes
Connection Bieri	(for 1000 bar) ... B																	
Connection ISO	(for 500 & 700 bar) ... I																	
Cartridge																		
Connection thread metric	... M																	
Design																		
E	cartridge																	
G	panel mount																	
P	modular subplate valve from P to T																	
Max. setting pressure	500 bar 700 bar 1000 bar																	
Control method																		
F	with sealing cap																	
D	with turning knob																	
X	without sealing cap																	
Version																		
A	standard																	
C	back pressure compensated																	
Seal material	V	FKM																
	other seal materials on request																	

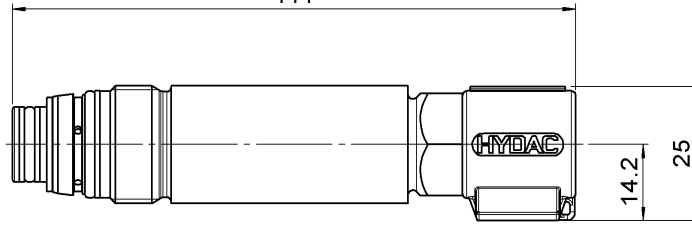
Product information

Version	A			C	
Design	E	G	P	E	P
Symbol					
Weight	0,18 kg	0,18 kg	1,69 kg	0,18 kg	1,69 kg
Size	500 bar				
Part-No. sealing cap	4534823	on request	4535146	4604647	4604845
Part-No. turning knob	4605300	on request	4605302	4605367	4605373
Size	700 bar				
Part-No. sealing cap	4534820	on request	4535117	4604645	4604726
Part-No. turning knob	4585182	on request	4605295	4605370	4605417
Size	1000 bar				
Part-No. sealing cap	4408891	on request	4408921	4455413	4604846
Part-No. turning knob	4605303	on request	4605304	4605371	4605419

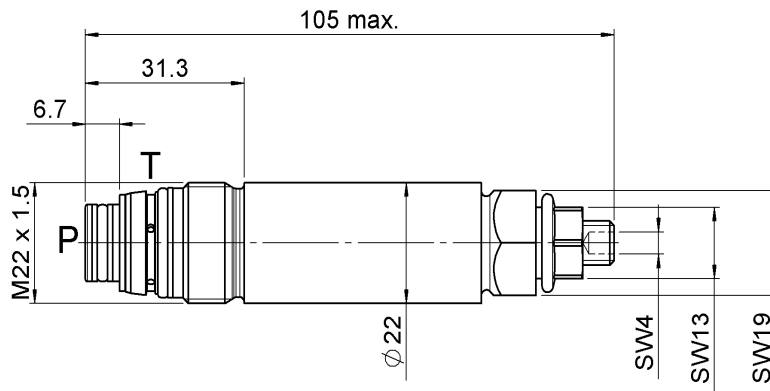
Dimensional drawings

Cartridge

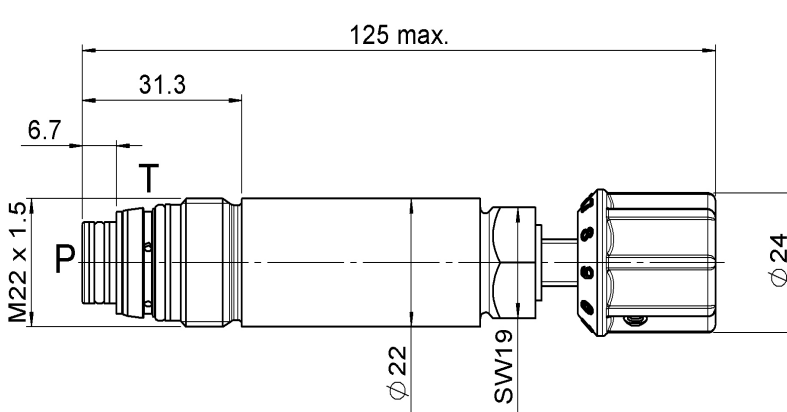
with sealing cap
111



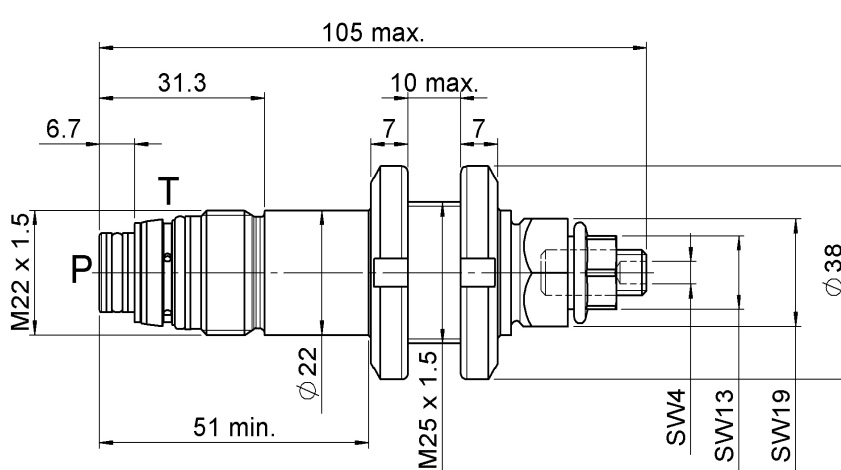
without sealing cap
105 max.



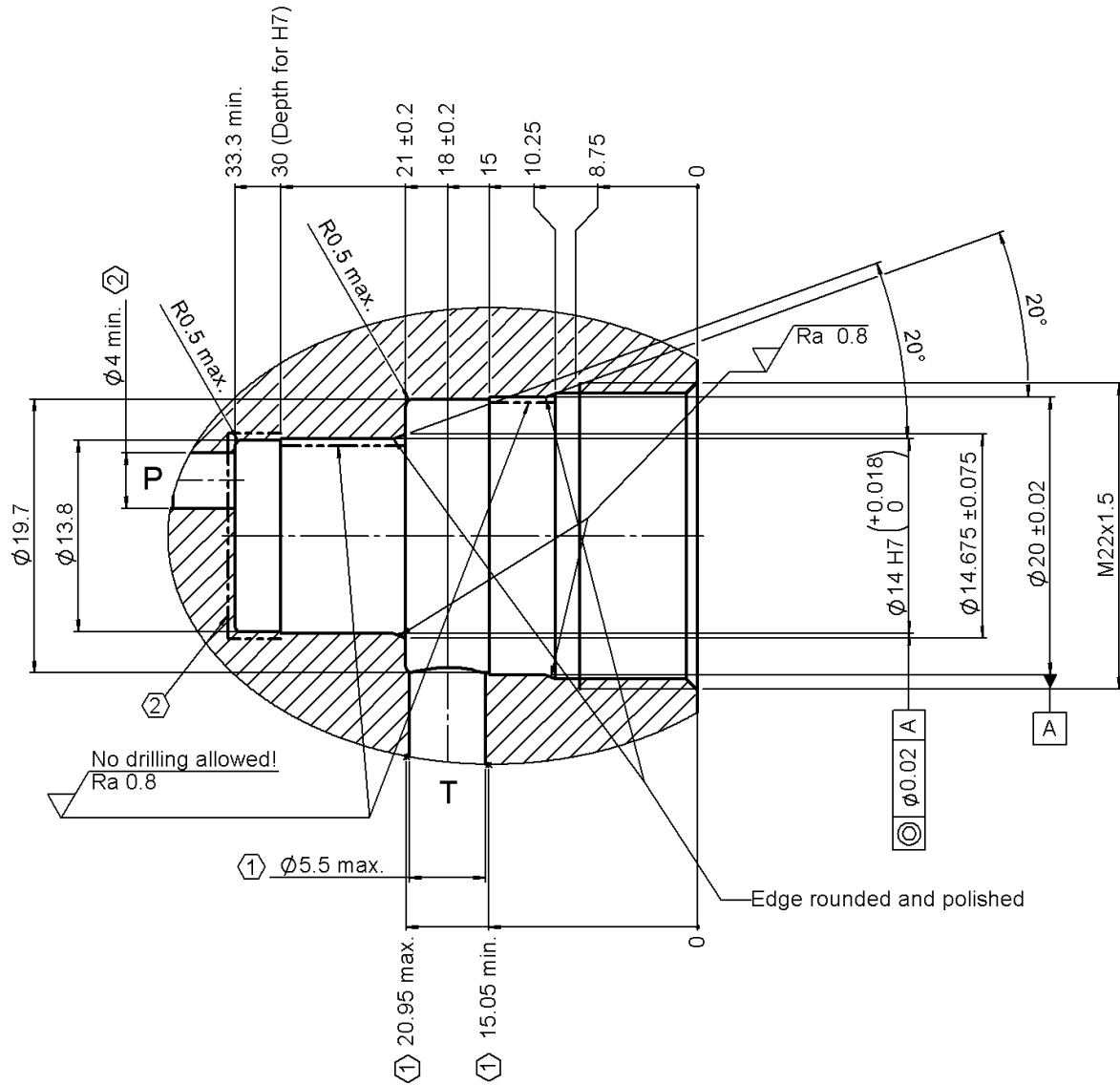
with turning knob
125 max.



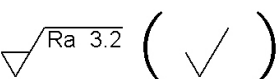
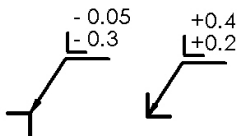
Panel mount without sealing cap
105 max.



Cavity
ADA-model-no.: 4693000



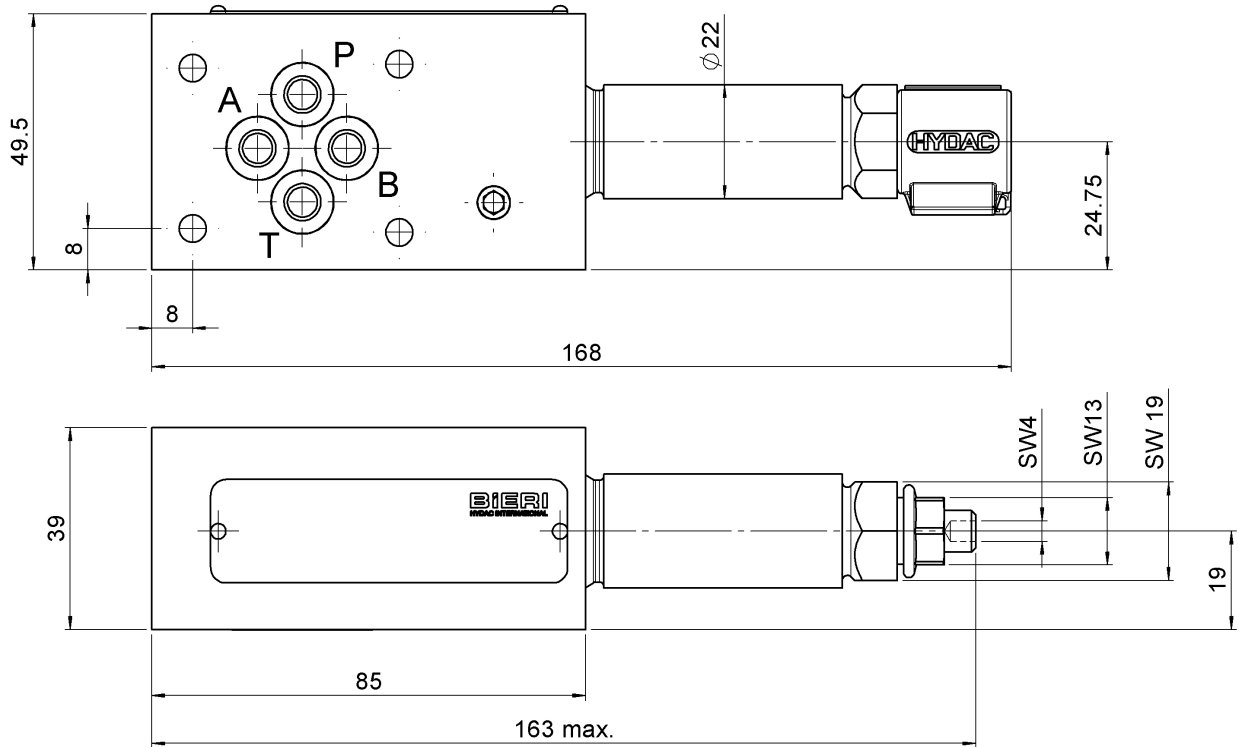
- ① Cross holes are allowed within this range
- ② Within this area, transverse or longitudinal drilling is permitted.


 Tolerierung ISO 8015
 Tolerancing ISO 8015
 Allgemeintoleranzen ISO 2768-mH
 General tolerances ISO 2768-mH
 

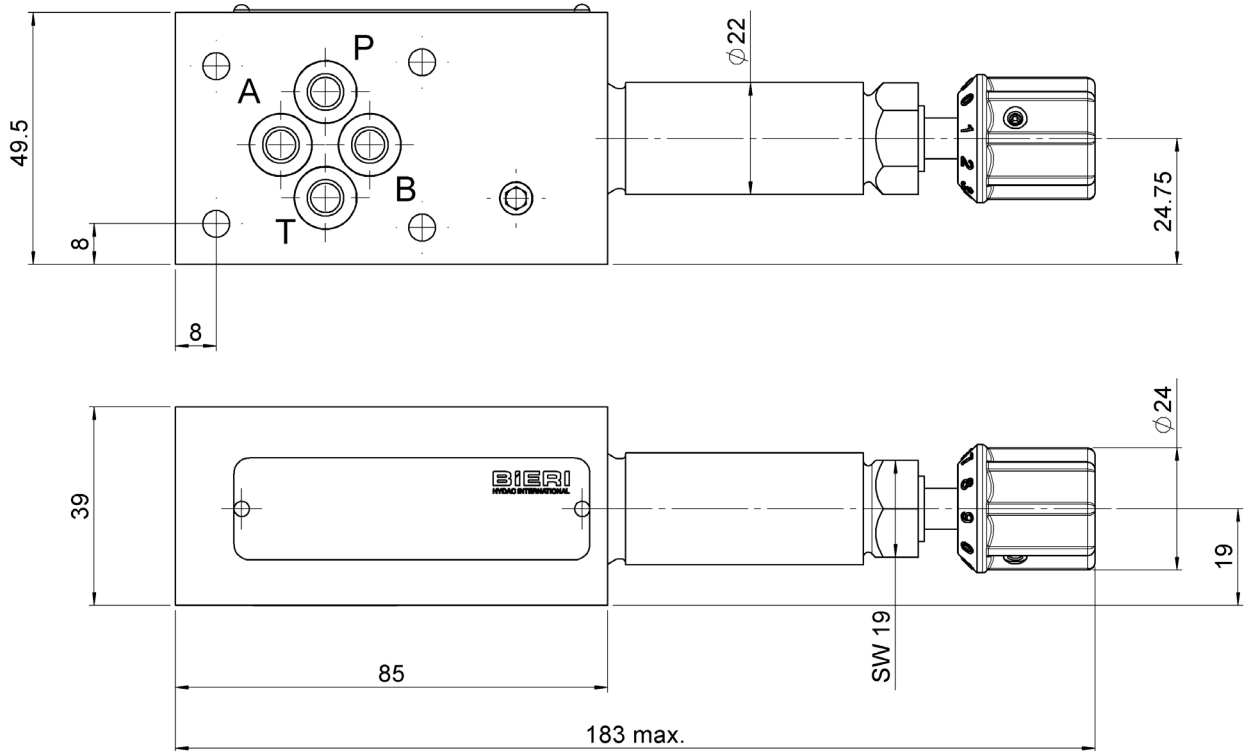
The responsibility of the material design with regard to strength lies with the user

Modular subplate from P to T

with sealing cap

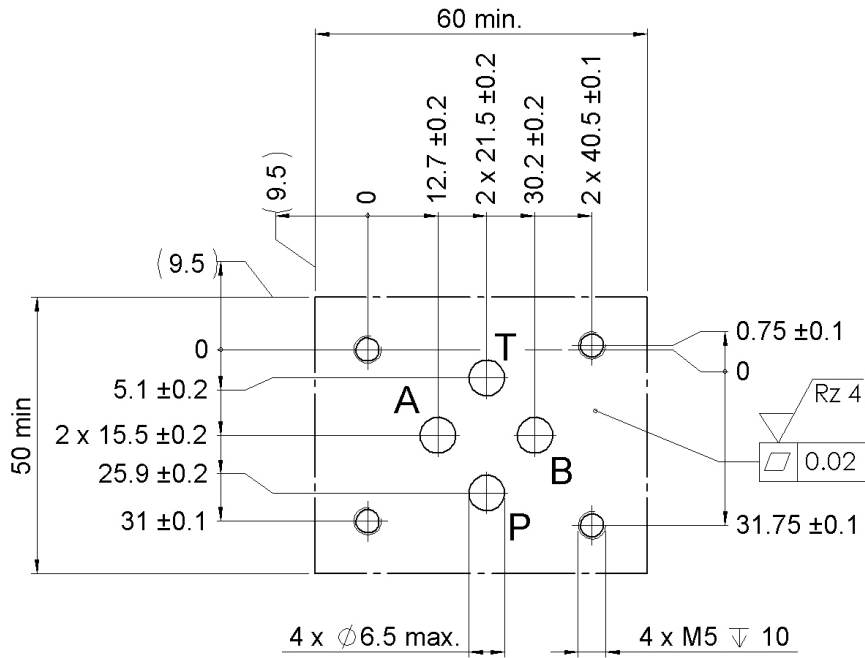


with turning knob

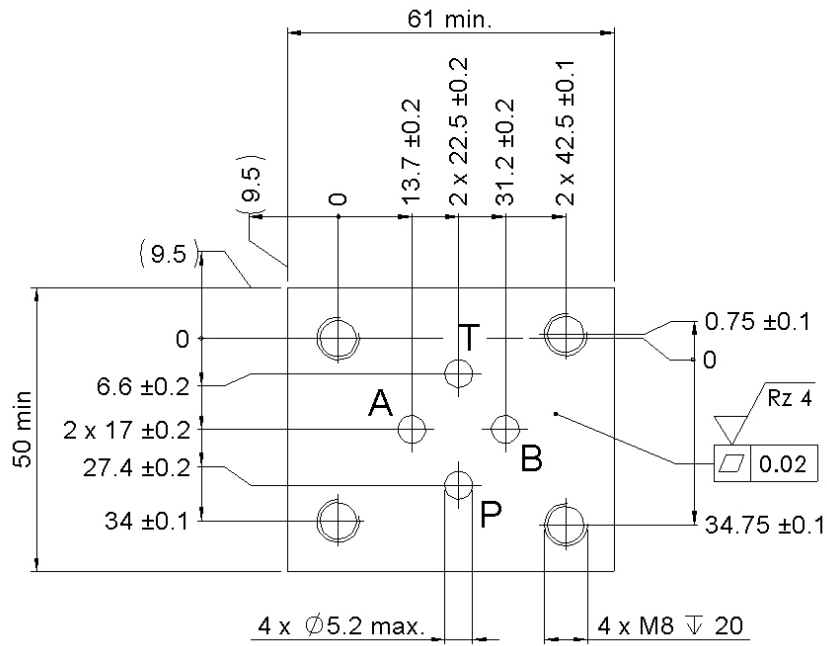


Drilling pattern

500 bar / 700 bar



1000 bar

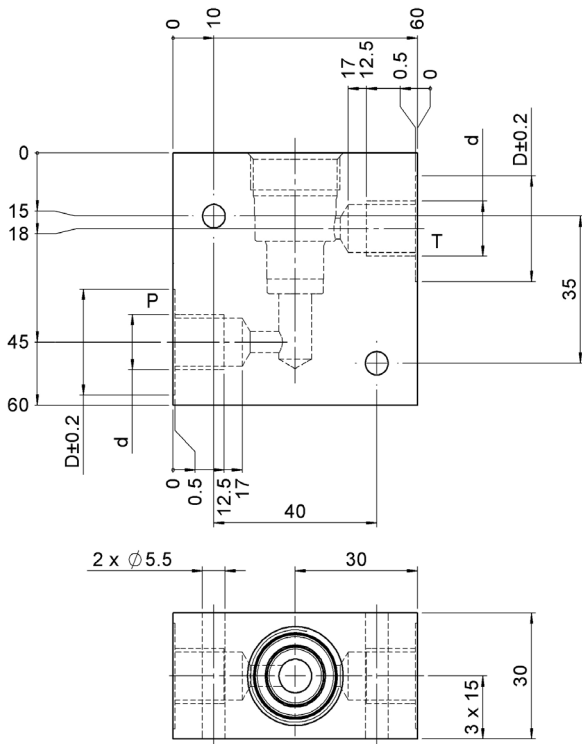


Valve block for in-line mounting

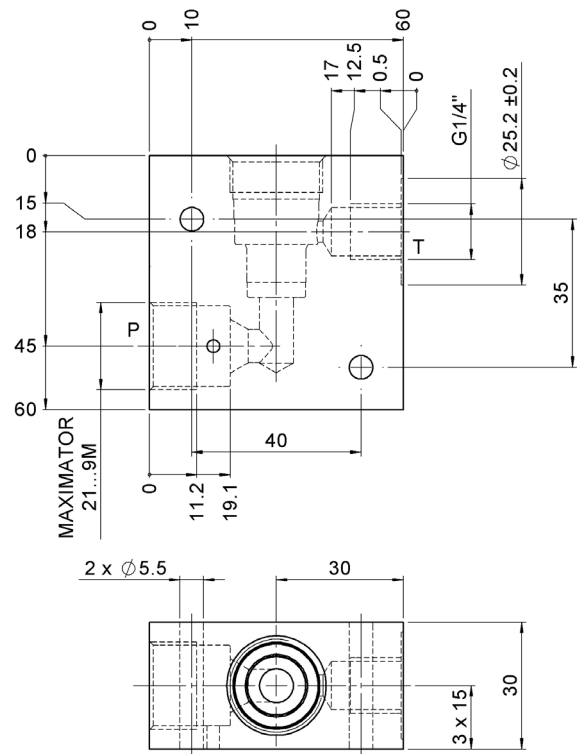
type	max. operating pressure	part No.	dim. d [mm]	dim. D [mm]
VKR-6-DB700/DB500 1/4" with mp	700 bar	4755302	1/4"	25.2
VKR-6-DB700/DB500 1/4"	700 bar	4648470	1/4"	25.2
VKR-6-DB700/DB500 3/8"	700 bar	4687868	3/8"	28.2
VKR-6-DB1000	1000 bar	4539124	-	-

Dimensional drawing

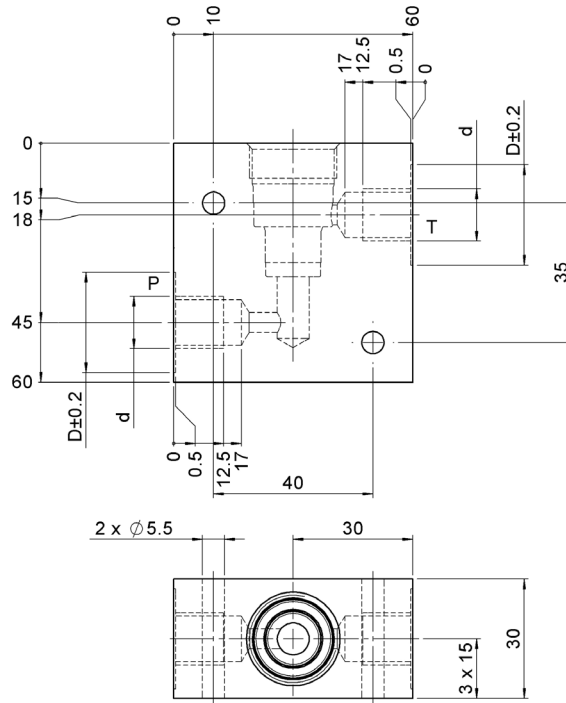
500 bar / 700 bar



1000 bar

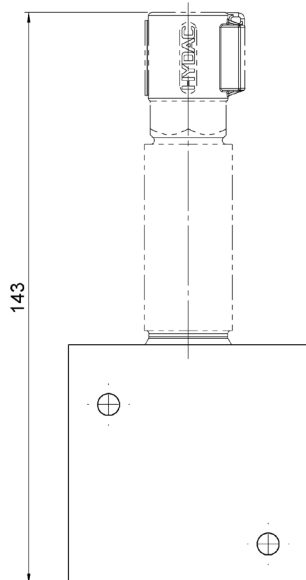


500 bar / 700 bar with measuring port

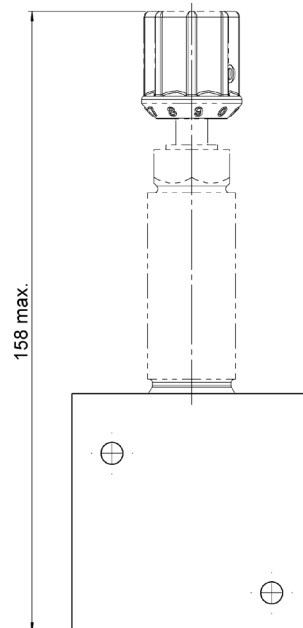


Dimensional drawing with pressure relief cartridge (Cartridge not included in scope of supply)

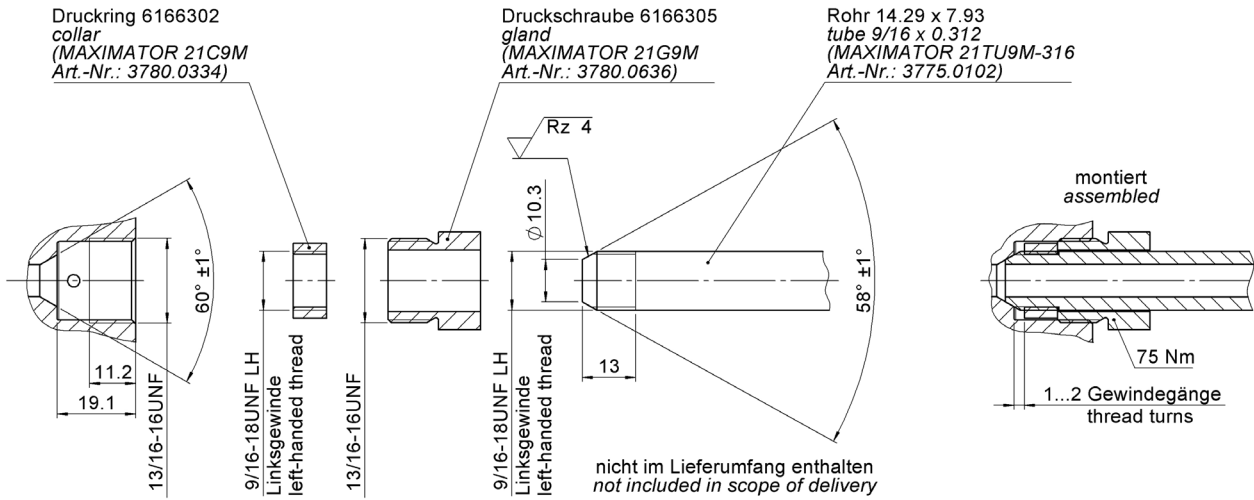
with sealing cap



with turning knob



Anschluss "P" mit MAXIMATOR-Verrohrung
Connection "P" with MAXIMATOR piping

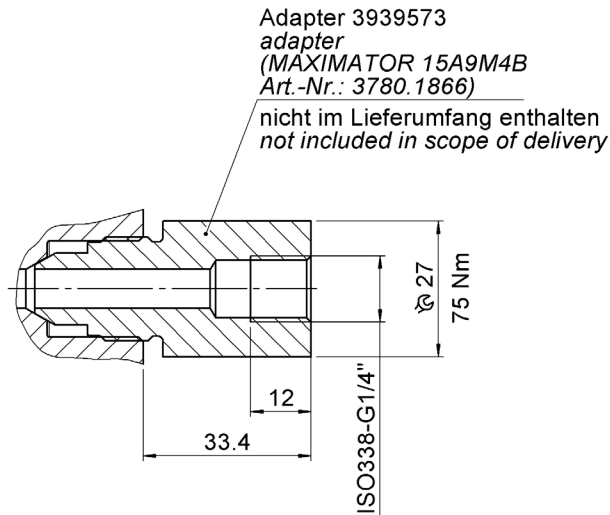


Anschluss "P" mit System-Anschluss G1/4"
Connection "P" with system adapter G1/4"

Accessories

item description	part no.
adapter G1/4" MAXIMATOR	3939573

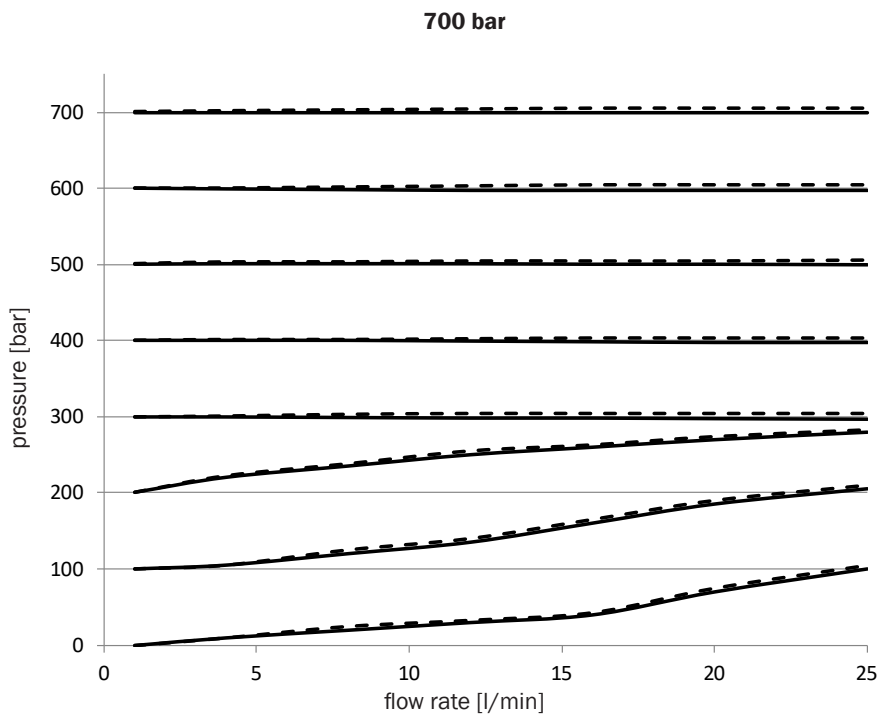
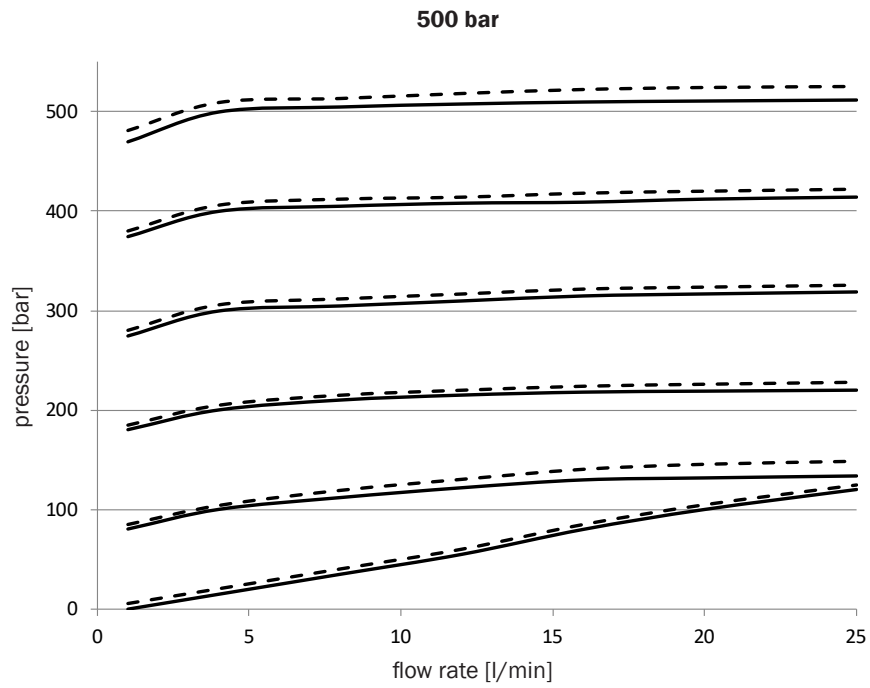
Anschluss "P" mit System-Anschluss G1/4"
Connection "P" with system adapter G1/4"



Characteristics

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

---- back pressure compensated version with 100bar pressure in the T-connection



1000 bar

