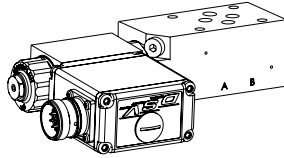


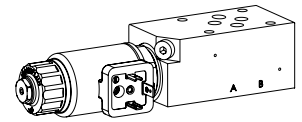
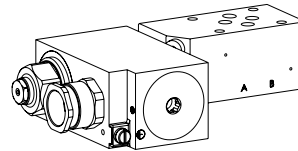
## Proportional pressure relief valve

### Flange- or Sandwich construction

- ◆ pilot or direct operated
- ◆  $Q_{max} = 60 \text{ l/min}$
- ◆  $p_{max} = 400 \text{ bar}$



**NG6**  
**ISO 4401-03**



## DESCRIPTION

Pilot or direct operated proportional pressure relief valve in flange or sandwich construction. When the operating pressure adjusted by means of the proportional solenoid is reached, the valve opens and connects the protected line with the drain to the tank. These proportional valves are very sensitively adjustable. For flange or sandwich executions with pressure relief in port P, there is a manometer connection. For the control, Wandfluh proportional amplifiers are available (see register 1.13).

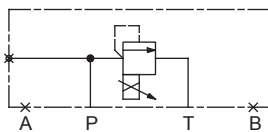
## APPLICATION

These valves are used in hydraulic systems where the pressure has to be changed frequently. The electrical remote control in conjunction with process controls allows economical solutions with repeatable processes.

## SYMBOL

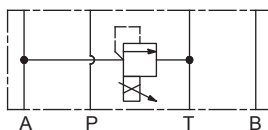
Flange execution

B..FA06-P



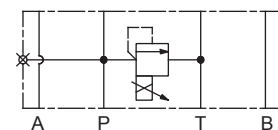
Sandwich execution

B..SA06-A



Sandwich execution

B..SA06-P



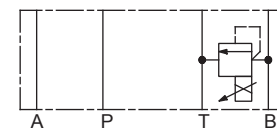
**Note!**



- ◆ Direct operated execution drawn
- ◆ All variants are also available pilot operated

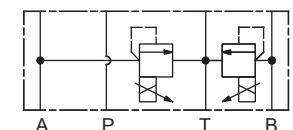
Sandwich execution

B..SA06-B



Sandwich execution

B..SA06-AB



## GENERAL SPECIFICATIONS

Designation	Proportional pressure relief valve
Construction	Pilot or direct operated
Mounting	Flange- or Sandwich construction
Nominal size	NG6 according to ISO 4401-03
Actuation	Proportional solenoid
Ambient temperature	-25...+70 °C
Weight	Without screw-in cartridge 1,45 kg (Flange construction) 1,20 kg (Sandwich construction P) 0,96 kg (Sandwich construction A,B) 1,56 kg (Sandwich construction AB)
MTTFd	150 years

## ACTUATION

Actuation

Proportional solenoid, wet pin push type, pressure tight

**Note!**



Other specifications, see data sheet of the screw-in cartridges

**TYPE CODE**

Pressure relief valve		B	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A06 -	<input type="checkbox"/>	-	<input type="checkbox"/>	#	<input type="checkbox"/>
Direct operated	<input type="checkbox"/>										
Pilot operated	<input type="checkbox"/>										
Proportional	<input type="checkbox"/>										
Proportional, Ex-protection	<input type="checkbox"/>										
Flange construction	<input type="checkbox"/>										
Sandwich construction	<input type="checkbox"/>										
International standard interface ISO, NG6											
Type list / Function	flange construction in P	<input type="checkbox"/>	sandwich construction in P	<input type="checkbox"/>	in A	<input type="checkbox"/>	in B	<input type="checkbox"/>	in A und B	<input type="checkbox"/>	
Nominal pressure range $p_N$ , Nominal voltage $U_N$ , etc. of the built-in screw-in cartridge											
Design index (subject to change)											



2.3-740

 Examples: B  VP  F  A06-  P  -  20-G24/WD-HB4,5  
 B  DB  S  A06-  A  -  100-G12/L15  
 B  VP  S  A06-  AB  -  350-G12/MEA1R1

**HYDRAULIC SPECIFICATIONS**

Working pressure	$p_{max} = 400 \text{ bar}$
Nominal pressure range	$P_N =$ see data sheet of the screw-in cartridges
Volume flow range	$Q = 0 \dots 60 \text{ l/min}$
Fluid	Mineral oil, other fluid on request
Viscosity range	$12 \text{ mm}^2/\text{s} \dots 320 \text{ mm}^2/\text{s}$
Temperature range fluid	-25...+70 °C (NBR) -20...+70 °C (FKM)
Contamination efficiency	Class 18 / 16 / 13
Filtration	Required filtration grade $\beta_{6 \dots 10} \geq 75$ , see data sheet 1.0-50


**PERFORMANCE SPECIFICATIONS**

- Note!**  Detailed performance specifications as well as further hydraulic specifications can be found on the data sheet of the pressure reducing cartridge installed.
- Attention!**  The performance data especially the „pressure-flowcharacteristic,“ on the data sheets of the screw-in cartridges refer to the screw-in cartridges only. The additional pressure drop of the flange body respectively sandwich body must be taken into consideration.

**VALVES INSTALLED**

The following screw-in cartridges are used in either the flange body or the sandwich body.

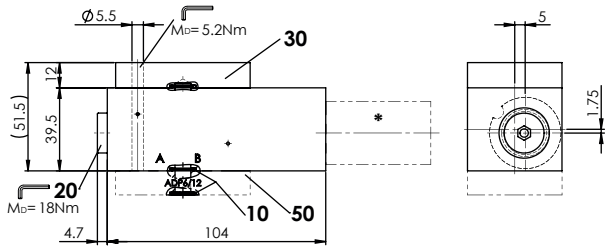
Article	Description	Data sheet no.	
BVPPM22	Proportional pressure relief cartridge pilot operated	2.3-529	60*
BVBPM22	Proportional pressure relief cartridge pilot operated, Ex-protection Ex d	2.3-536	60*
BVPPM22-../ME	Proportional pressure relief cartridge pilot operated, with integrated electronics	2.3-537	60*
BDPPM22	Proportional pressure relief cartridge direct operated	2.3-539	25*
BDBPM22	Proportional pressure relief cartridge direct operated, Ex-protection Ex d	2.3-547	25*
BDIPM22	Proportional pressure relief cartridge direct operated, inverse	2.3-548	20*
BDPPM22-../ME	Proportional pressure relief cartridge direct operated, with integrated electronics	2.3-561	25*
BDIPM22-../ME	Proportional pressure relief cartridge direct operated, inverse, with integr. electronics	2.3-562	20*

**Attention!**  \* Can be different from the value on the data sheet of the screw-in cartridge.

**DIMENSIONS**

Flange execution

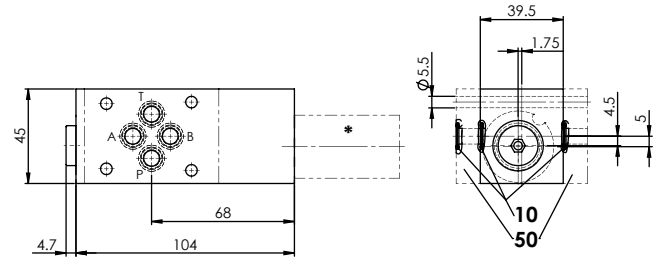
B..FA06-P



The distance plate ADP6 / ... (pos. 50) has to be ordered separately for the ex-protection solenoid

Sandwich execution

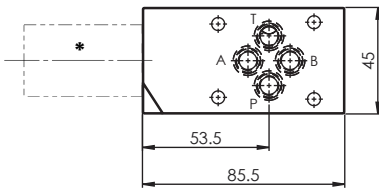
B..SA06-P



Sandwich execution

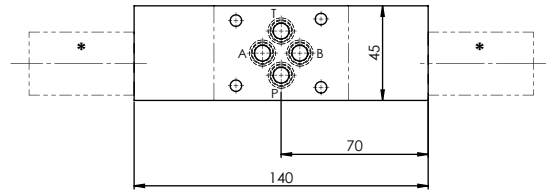
B..SA06-A

B..SA06-B (cartridge on B-side)

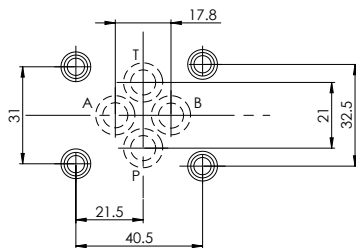


Sandwich execution

B..SA06-AB


**Note!**


\* The exterior dimensions or the cartridges can be obtained from the corresponding data sheets.

**HYDRAULIC CONNECTION**

**PARTS LIST**

Position	Article	Description
20	238.2406	Screw plug VSTI G1/4"-ED
30	173.3150	Blanking plate NG6 ABP6 (only for flange)
50	173.345.	Distance plate ADP6
	251.5916	Seal kit B.PSA06
<b>Seal kit consisting of:</b>		
10	O-ring	ID 9,25 x 1,78
	251.5917	Seal kit B.PPM22
	251.5918	Seal kit B.PPM22-D1

## ACCESSORIES

Proportional amplifier	Register 1.13
Threaded subplates	Data sheet 2.9-30
Multi-station subplates	Data sheet 2.9-60
Module type manifold blocks	Data sheet 2.9-100
Technical explanations	Data sheet 1.0-100
Filtration	Data sheet 1.0-50
Relative duty factor	Data sheet 1.1-430

## STANDARDS

Mounting interface	ISO 4401-03
Protection class	EN 60 529
Contamination efficiency	ISO 4406

## SURFACE TREATMENT

- ◆ The sandwich bodies are zinc-nickel coated.

## SEALING MATERIAL

NBR or FKM (Viton) as standard, choice in the type code

## INSTALLATION NOTES

Mounting type	Flange or sandwich mounting 4 fixing holes for socket head screws or studs M5
Mounting position	Any, preferably horizontal
Tightening torque	Fixing screws $M_D = 5,5 \text{ Nm}$ (quality 8.8, zinc coated) Screw-in cartridge $M_D = 60 \text{ Nm}$