

## Pressure relief valve

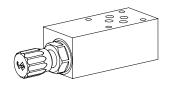
# Flange and sandwich construction

 Pilot operated:  $Q_{max} = 80 \text{ l/min}$  $p_{N \text{ max}} = 350 \text{ bar}$ p<sub>max</sub> = 400 bar Q<sub>max</sub> = 80 / 25 l/min • Direct operated:

 $p_{max} = 100 / 400 bar$  $p_{N \text{ max}} = 32 / 315 \text{ bar}$ 

NG6

ISO 4401-03



## **DESCRIPTION**

## Pilot operated pressure reducing valves NG6. Flange and sandwich construction according to ISO 4401-03 with 4 ports. Incorporated are proportional pressure reducing cartridges size M22x1,5 according to ISO 7789. The steel bodies for flange constructions and the bodies for sandwich constructions are phosphatized.

## **FUNCTION**

When the set operating pressure has been reached, the spool opens and joins the protected line with the return to the tank T. G1/4" connection thread is provided (sealed) as standard for flange and sandwich designs with pressure relief in P. This enables connection to a pressure gauge.

#### **APPLICATION**

For relieving the operating pressure of a hydraulic system by diverting the flow of oil from the protected oil lines P, A or B to the return/tank line T. Flange and sandwich valves (vertical stacking) are particularly suitable for: machine tools and all types of handling systems. NG6 size valves are also generally used in stacking systems on power units.

TYPE CODE				
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Pressure relief valve				
Direct operation, conical spool Direct operation, conical spool Pilot operated		A K V		
Type of adjustment	Key Control knob Cover	S D A		
Flange design Sandwich design		FS		
International standard interface	ISO, NG6			
Type list / function	Flange design in P P	Sandwich design in P P in A A in B B in A and B AB		
Pressure range p <sub>N</sub>	Pilot operated         63 bar       63         160 bar       160         350 bar       350	conical spool, direct operated         63 bar       63         210 bar       210         315 bar       315	control spool, direct operated 32 bar 32	
Design-Index (Subject to chan-	ne)			

## **GENERAL CHARACTERISTICS**

Pilot or direct operated pressure relief valve Denomination Nominal size NG6 acc. to ISO 4401-03

Construction Flange or sandwich construction Type of mounting 4 fixing holes for socket head cap screws M5

or stud M5

 $M_D$  = 5,5 Nm (quality 8.8) for fixing screws Fastening torque

 $M_D = 50 \text{ Nm for screw-in cartridge}$ 

Type of connections Thread-connection plates

rows of flange plates and

horizontal stacking system

any

Installation position Ambient temperature

-20...+50°C

Weight (without screw-in-

cartridges)

• Flange design m = 1,43 kg• Sandwich design P, A, B m = 1,18 kg · Sandwich design AB m = 1,58 kg

## HYDRAULIC CHARACTERISTICS

Mineral oils, other media on request Hydraulic fluid Max. permissible ISO 4406:1999, classe 18/16/13 contamination level (Rec. filter gauge ß 6...10≥75) see data sheet 1.0-50/2

Viscosity range 12 mm<sup>2</sup>/s ... 320 m

 $p_{max} = 400 bar$ Peak pressure:  $p_{\text{max}}$  = 100 bar (direct operated control spool)

Maximum volume flow

pilot, direct op. conical spool  $Q_{max} = 80 \text{ l/min}$ direct operated control spool Q<sub>max</sub> = 25 l/min





#### REMARK!

Detailed performance data and additional hydraulic specifications may by drawn from the data sheets of the corresponding installed pressure relief cartridge.

## **CAUTION!**



The performace data especially the "pressure-flow-characteristic," on the data sheets of the screw-in catridges refere to the screw-in cartridges only. The additional pressure drop of the flange body respectivly sandwich body must be taken into consideration.

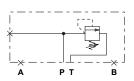
## **SCREW-IN CARTRIDGES INSTALLED**

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

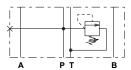
Туре	Designation	Data sheet no.
B <b>V</b> .PM22	Pressure relief valve	
	<ul> <li>pilot operated</li> </ul>	2.1-530
B <b>A.</b> PM22	Pressure relief valve	
	<ul> <li>direct operated</li> </ul>	2.1-540
B <b>K.</b> PM22	Pressure relief valvee	
	direct operated	2 1-542

## **TYPES / DIMENSIONS**

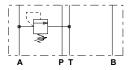
Flange construction B..FA06-P



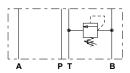
# Sandwich construction B..SA06-P



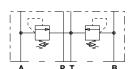
B..SA06-A



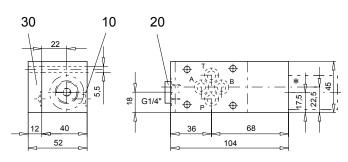
B..SA06-B



B..SA06-AB



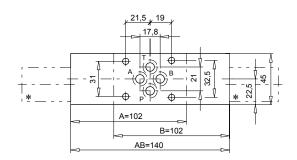
# Flange construction



Sandwich construction in P



# Sandwich construction in A, B or AB



## **PARTS LIST**

Position	Article	Description
10	160.2093	O-ring ID 9,25x1,78
20	238.2406	Plug VSTI G1/4"-ED (only for flange and sandwich plate P)
30	173.3150	Blindplate ABP6 (only for flansch)

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

Technical explanation see data sheet 1.0-100