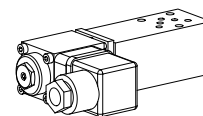


**Proportional pressure relief valve
Flange and sandwich construction**
• Pilot and direct operated

- $Q_{\max} = 8 \text{ l/min}$
- $p_{\max} = 350 \text{ bar}$
- $p_{N \max} = 315 \text{ bar}$

NG3-Mini[®]

DESCRIPTION

Pilot and direct operated proportional pressure relief valves NG3-Mini. Flange and sandwich construction according to Wandfluh standard with 4 ports. Incorporated are proportional pressure relief cartridges size M18x1,5 according to ISO 7789. The flange body and sandwich plates are made of aluminium.

FUNCTION

By adjusting the electric current to the proportional solenoid the operating pressure in hydraulic systems is limited by relieving the fluid from the protected lines P, A, B or A and B to the return / tank line T. Back pressure in T influences the pressure in the relieved pressure lines. This proportional pressure relief valves are adjustable very sensitively. To control the valve proportional amplifiers are available from Wandfluh (see register 1.13).

APPLICATION

The valves have their applications in hydraulic systems in which the pressure frequently has to be changed. The facility for remote control and signal processing from process control systems enable economical solutions to problems with repeatable sequences. NG3-Mini valves are used where both, reduced dimensions and weight are important.

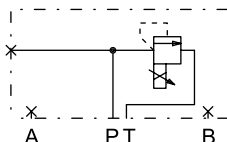
TYPE CODE

		B <input type="checkbox"/> P <input type="checkbox"/> A03 - <input type="checkbox"/> - <input type="checkbox"/> - <input type="checkbox"/> # <input type="checkbox"/>	
Pressure relief valve			
Pilot operated	<input type="checkbox"/> V		
Direct operated	<input type="checkbox"/> D		
Proportional			
Flange construction	<input type="checkbox"/> F		
Sandwich construction	<input type="checkbox"/> S		
Mounting interface acc. to Wandfluh standard, NG3-Mini			
Type list / Function	<i>flange construction</i> in P <input type="checkbox"/> P	<i>sandwich construction</i> in P <input type="checkbox"/> P in A <input type="checkbox"/> A in B <input type="checkbox"/> B in A and B <input type="checkbox"/> AB	
Nominal pressure range p_N	<i>pilot operated</i> 20 bar <input type="checkbox"/> 20 100 bar <input type="checkbox"/> 100 200 bar <input type="checkbox"/> 200 315 bar <input type="checkbox"/> 315	<i>direct operated</i> 20 bar <input type="checkbox"/> 20 100 bar <input type="checkbox"/> 100 200 bar <input type="checkbox"/> 200 315 bar <input type="checkbox"/> 315	
Nominal voltage U_N	12 VDC <input type="checkbox"/> G12 24 VDC <input type="checkbox"/> G24		
Design-Index (Subject to change)			

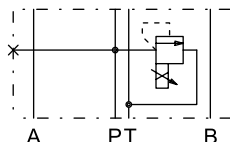
TYPE LIST / FUNCTION

Flange construction:

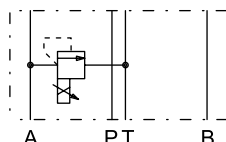
Sandwich construction:



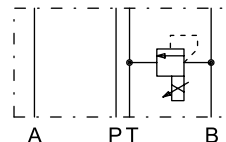
B..FA03-P



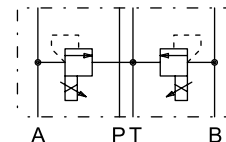
B..SA03-P



B..SA03-A



B..SA03-B



B..SA03-AB

SCREW-IN CARTRIDGES INSTALLED

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

Type	Designation	Data sheet no.
BVPPM18	Pressure relief valve • pilot operated, proportional	2.3-510
BDPPM18	Pressure relief valve • direct operated, proportional	2.3-520

GENERAL SPECIFICATIONS

Description	Pilot and direct operated proportional pressure relief valve NG3-Mini according to Wandfluh standard
Nominal size	Flange or sandwich
Constructions	Proportional solenoid
Operations	3 fixing holes for socket head cap screws M4 or studs M4
Mounting	Threaded connection plates Multi-flange subplates Longitudinal stacking system
Connections	-20...50 °C
Ambient temperature	any
Mounting position	any
Weight:	• Flange type m = 0,13 kg
(without screw-in cartridge)	• Sandwich type P, A, B m = 0,15 kg
	• Sandwich type AB m = 0,19 kg

HYDRAULIC SPECIFICATIONS

Fluid	Mineral oil, other fluid on request
Contamination efficiency	ISO 4406:1999, class 18/16/13 (Required filtration grade $\beta_{6...10} \geq 75$) see data sheet 1.0-50/2
Viscosity range	12 mm ² /s...320 mm ² /s
Fluid temperature	-20...+70 °C
Peak pressure	p _{max} = 350 bar
Volume flow range	Q = 0,1...8 l/min



REMARK!

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

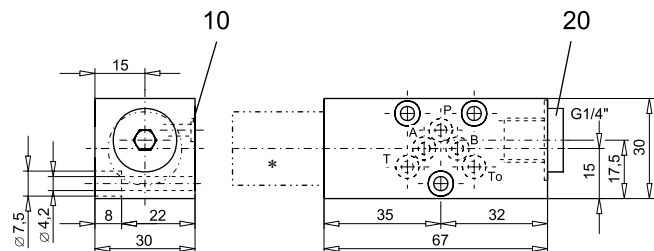


CAUTION!

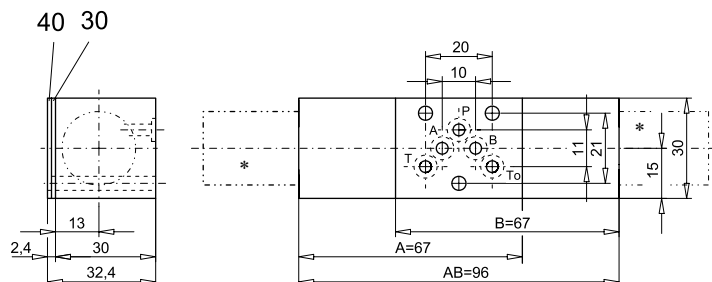
The performance data especially the „**pressure-flow-characteristic**„ on the data sheets of the screw-in cartridges refer to the screw-in cartridges only. The additional pressure drop of the flange body respectively sandwich body must be taken into consideration.

DIMENSIONS

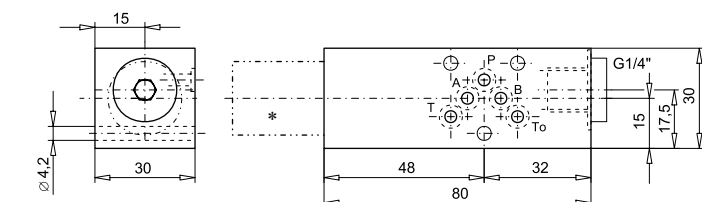
Flange construction



Sandwich construction in A, B or AB



Sandwich construction in P



* The envelop dimensions of the screw-in cartridge are shown on their corresponding data sheets.

PARTS LIST

Position	Article	Description
10	160.2045	O-ring ID 4,5x1,5 (NBR)
20	238.2406	Plug VSTI G1/4"-ED
30	173.0650	Sealing plate PDSA03
40	173.0700	Intermediate plate PZSA03

ACCESSORIES

Proportional amplifier	register 1.13
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Technical explanation see data sheet 1.0-100