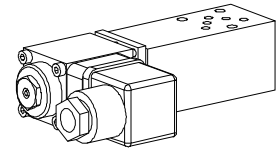


**Proportional pressure relief valve
 Flange and sandwich construction**

- Pilot and direct operated
- $Q_{max} = 8 \text{ l/min}$
- $p_{max} = 350 \text{ bar}$
- $p_{Nmax} = 315 \text{ bar}$

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.

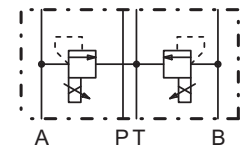
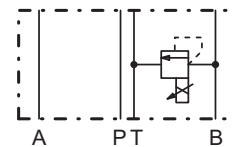
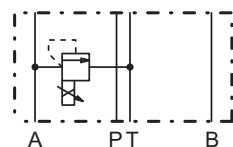
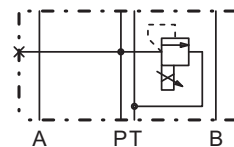
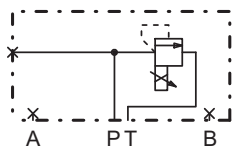
TYPE CODE

		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
Standard nominal pressure ranges:	<i>pilot operated</i> $p_N = 20 \text{ bar}$ <input type="checkbox"/> 20 $p_N = 100 \text{ bar}$ <input type="checkbox"/> 100 $p_N = 200 \text{ bar}$ <input type="checkbox"/> 200 $p_N = 315 \text{ bar}$ <input type="checkbox"/> 315	<i>direct operated</i> $p_N = 20 \text{ bar}$ <input type="checkbox"/> 20 $p_N = 100 \text{ bar}$ <input type="checkbox"/> 100 $p_N = 200 \text{ bar}$ <input type="checkbox"/> 200 $p_N = 315 \text{ bar}$ <input type="checkbox"/> 315
Standard nominal voltage:	$U_N = 12 \text{ VDC}$ <input type="checkbox"/> G12 $U_N = 24 \text{ VDC}$ <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	
Nominal size	NG3-Mini according to Wandfluh standard	
Constructions	Flange or sandwich	
Operations	Proportional solenoid	
Mounting	3 fixing holes for socket head cap screws M4 or studs M4	
Connections	Threaded connection plates Multi-flange subplates Longitudinal stacking system	
Ambient temperature	-20...50°C	
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!

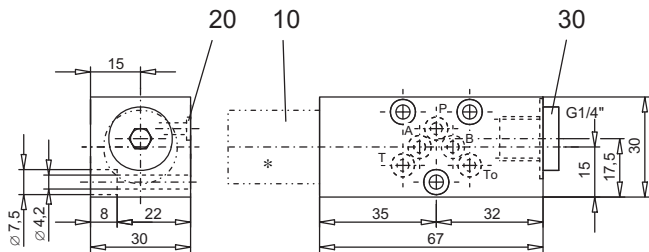
Detailed performance data and additional hydraulic and electric specifications may be drawn from the data sheets of the corresponding installed pressure relief cartridge.


CAUTION!

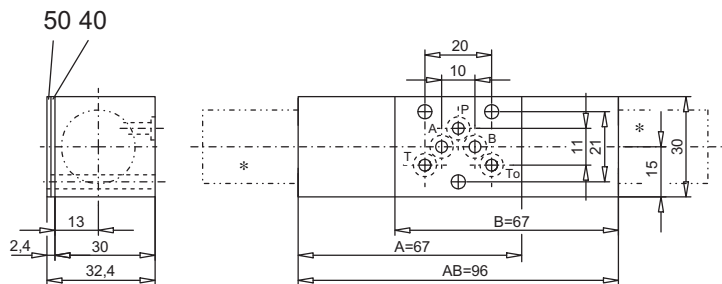
The performance data especially the „**pressure-flow-characteristic**„ on the data sheets of the screw-in cartridges refer to the screw-in cartridges only. The additional pressure drop of the flange body respectively sandwich body must be taken into consideration.

DIMENSIONS

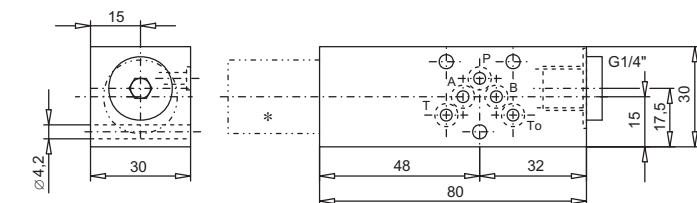
Flange construction



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	609.1 ...	Screw-in cartridge
20	160.2045	O-ring ID 4,5x1,5
30	238.2406	Plug VSTI G1/4"-ED (only flange and sandwich type in P)
40	173.0650	Sealing plate PDSA03
50	173.0700	Intermediate plate PZSA03

ACCESSORIES

Proportional amplifier register 1.13

Technical explanation see data sheet 1.0-100E