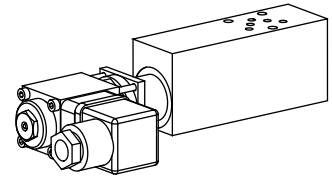


**Proportional pressure reducing valve  
 Flange and sandwich construction**

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

**NG3-Mini<sup>®</sup>**

**DESCRIPTION**

Pilot operated proportional pressure reducing valves NG3-Mini. Flange and sandwich construction according to Wandfluh standard with 4 ports. Incorporated are proportional pressure reducing cartridges size M18x1,5 according to Wandfluh standard. Adjustment by Wandfluh proportional solenoids (Standard VDE 0580). The flange body and sandwich plates are made of aluminium. The cartridge body made of steel is zinc coated and the solenoid is phosphatized.

**FUNCTION**

By adjusting the electric current to the proportional solenoid the pressure in the controlled port will be changed proportionally to the solenoid current. A pressure rise in the controlled port above the adjusted value, caused e.g. by an active oil consumer, will be prevented by relieving excessive flow to the tank line T. This proportional pressure reducing 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 in a consumer has to remain constant at the adjusted value independently of pressure fluctuations on the supply side. 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.

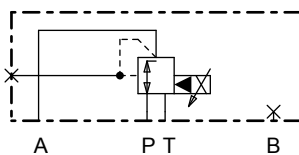
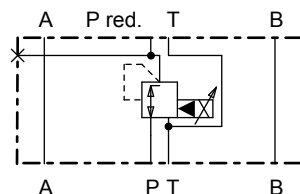
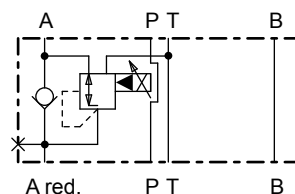
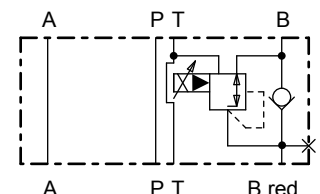
**TYPE CODE**

	M	V	P	<input type="checkbox"/>	A03	-	<input type="text"/>	-	<input type="text"/>	-	<input type="text"/>	#	<input type="text"/>
Pressure reducing valve													
Pilot operated													
Proportional													
Flange construction													
Sandwich construction													
Mounting interface acc. to Wandfluh standard, NG3-Mini													
Type list / Function	flange construction from P → A			sandwich construction									
	<input type="checkbox"/> P/A			<input type="checkbox"/> P <input type="checkbox"/> A <input type="checkbox"/> B									
Nominal pressure range $p_{N \text{ red}}$	20 bar	<input type="text" value="20"/>											
:	100 bar	<input type="text" value="100"/>											
	200 bar	<input type="text" value="200"/>											
	315 bar	<input type="text" value="315"/>											
Nominal voltage $U_N$	12 VDC	<input type="text" value="G12"/>											
	24 VDC	<input type="text" value="G24"/>											
Design-Index (Subject to change)													

**TYPE LIST / FUNCTION**

Flange construction:

Sandwich construction:


**MVPFA03-P/A**

**MVPSA03 - P**

**MVPSA03 - A**

**MVPSA03 - B**

**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.
MVPPM18	Pressure reducing valve • pilot operated, proportional	2.3-610

**GENERAL SPECIFICATIONS**

Description	Pilot operated proportional pressure reducing 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 = 0,14 kg
(without screw-in cartridge)	• Sandwich type P	m = 0,19 kg
	• Sandwich type A, B	m = 0,26 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 <sup>2</sup> /s...320 mm <sup>2</sup> /s
Fluid temperature	-20...+70 °C
Peak pressure	$p_{max} = 350$ bar
Volume flow range	$Q = 0...8$ l/min


**REMARK!**

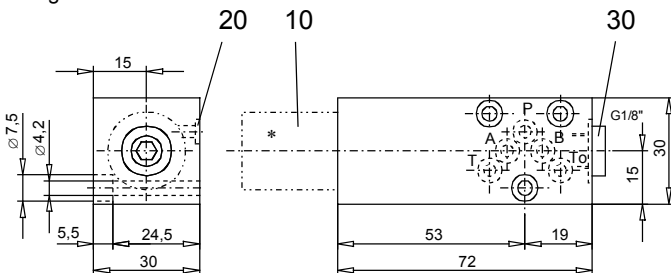
Detailed performance data and additional hydraulic and electric specifications may be drawn from the data sheets of the corresponding installed pressure reducing cartridge.


**CAUTION!**

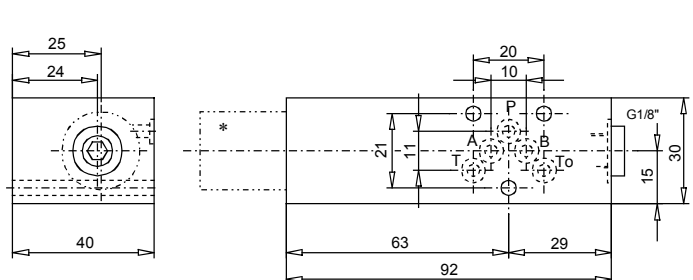
The performance data especially the „**pressure-flow-characteristic**„ on the data sheets of the screw-in cartridges refer to the screw-in cartridges only. The additional pressure drop of the flange body respectively sandwich body must be taken into consideration.

**DIMENSIONS**

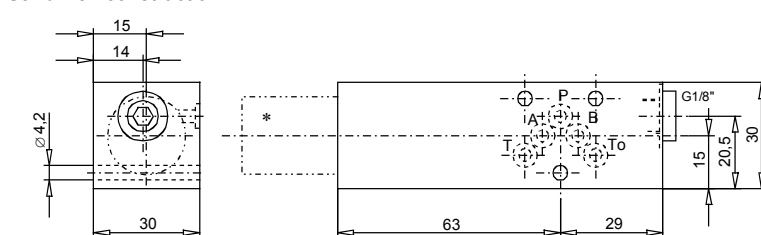
Flange construction



Sandwich construction in A or B



Sandwich construction in P



For sandwich red. pressure in B cartridge is located on B-side

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

**PARTS LIST**

Position	Article	Description
10	617.1 ...	Screw-in cartridge
20	160.2045	O-ring ID 4,5x1,5
30	238.1405	Plug VSTI G1/8"-ED (only flange and sandwich type in P)

**ACCESSORIES**

Proportional amplifier register 1.13

Technical explanation see data sheet 1.0-100