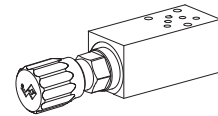


**Back pressure valve
Sandwich construction**
 $Q_{max} = 8 \text{ l/min}$
 $p_{max} = 315 \text{ bar}$
NG3-Mini[®]

DESCRIPTION

Back pressure valves in direct or pilot operated versions for sandwich mounting. The valves are available in two types of adjustment and can be fixed. A cover is also available for key adjustment, see data sheet 2.0-50. Three pressure ranges are available. The sandwich bodies are in anodised aluminium.

FUNCTION

When pressure reaches the setting of the back pressure valve main spool will open up the oil passage.

APPLICATION

Back pressure valves are applied where a back pressure in the outlet part of a cylinder or motor is necessary to prevent uncontrolled movement. The fields of applications are in machine building, handling system and hydraulic power packs.

TYPE CODE

Back pressure valve		G		S		A 03 -		#	
Direct operated		S							
Pilot operated		V							
Type of adjustment	Key	S							
	Control knob	D							
	Cover	A							
Sandwich construction									
Mounting interface acc. to Wandfluh standard, NG3-Mini									
Type list / function	in T	T	in A	A	in B	B			
	in A and B	AB							
Pressure range P_N	Pilot operated	Direct operated							
	63 bar	63	63 bar	63					
	160 bar	160	160 bar	160					
			315 bar	315					

Design-Index (Subject to change)

GENERAL SPECIFICATIONS

Nominal size	NG3-Mini according to Wandfluh standard
Denomination	Pilot- and direct operated back pressure valve
Construction	Sandwich construction
Mounting	3 holes for socket cap screws M4 or studs screws M4
Fastening torque	$M_0 = 2,8 \text{ Nm}$ (qual. 8.8) for fixing screws $M_D = 30 \text{ Nm}$ for screw in cartridge
Connections	Threaded connection plates Multi-flange subplates Longitudinal stacking system
Mounting position	any
Ambient temperature	-20...+50 °C
Weight	Depending on the type of valves 0,30...0,85 kg

HYDRAULIC SPECIFICATIONS

Fluid	Mineral oil, other fluid on request
Contamination efficiency	ISO 4406:1999, class 18/16/13 (Required filtration grade $\beta_{6...10} \geq 75$) refer to data sheet 1.0-50
Viscosity range	12 mm ² /s...320 mm ² /s
Fluid temperature	-20...+70 °C
Peak pressure	$p_{max} = 315 \text{ bar}$
Nominal pressure	
pilot operated:	$p_N = 63 \text{ bar}, 160 \text{ bar}, 350 \text{ bar}$
direct operated:	$p_N = 63 \text{ bar}, 160 \text{ bar}, 315 \text{ bar}$
Minimal Pressure	see characteristics
Opening pressure over non-return valve	$p_0 = 0,3 \text{ bar}$
Max. Volume flow	
pilot operated:	$Q_{max} = 8 \text{ l/min}$
direct operated:	$Q_{max} = 5 \text{ l/min}$

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.
BV.PM18	Pressure relief valve • pilot operated	2.1-510
BS.PM18	Pressure relief valve • direct operated	2.1-520


REMARK!

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


REMARK!

Detailed performance data and additional hydraulic 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.

SCREW-IN CARTRIDGES INSTALLED

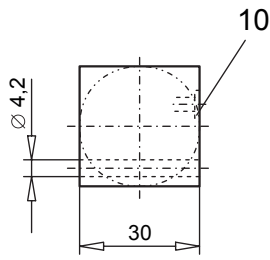
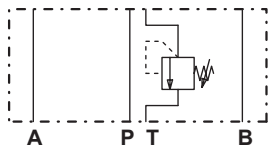
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Type	Designation	Data sheet no.
BV.PM18	Pressure relief valve • pilot operated	2.1-510
BS.PM18	Pressure relief valve • direct operated	2.1-520

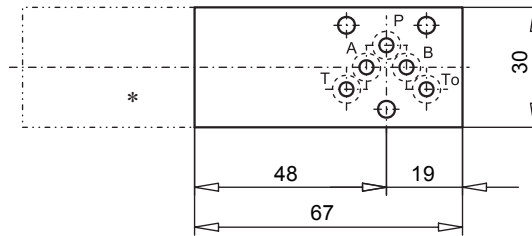
TYPE LIST / DIMENSIONS

Sandwich construction

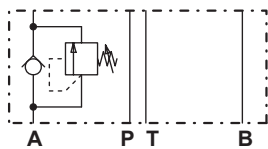
G..SA03-T



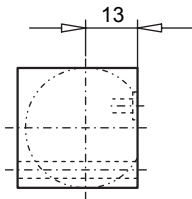
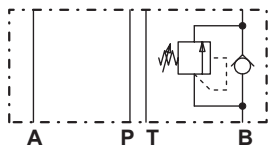
G..SA03-T



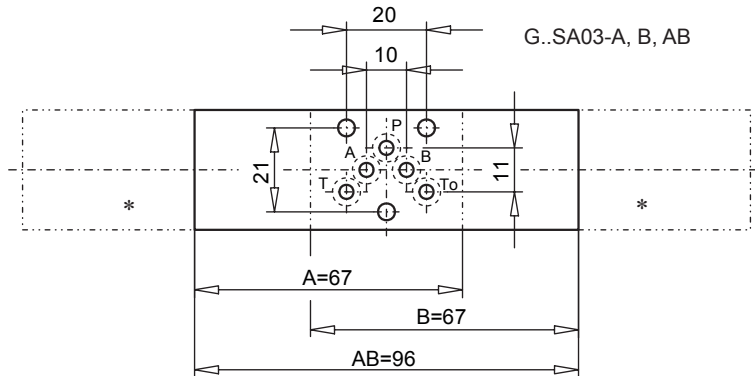
G..SA03-A



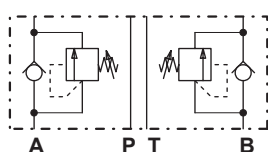
G..SA03-B



G..SA03-A, B, AB



G..SA03-AB



* The exterior dimensions of the cartridges can be obtained from the corresponding data sheets 2.1-510 and 2.1-520.

PARTS LIST

Position	Article	Description
10	160.2045	O-ring ID 4,5x1,5

Technical explanation see data sheet 1.0-100