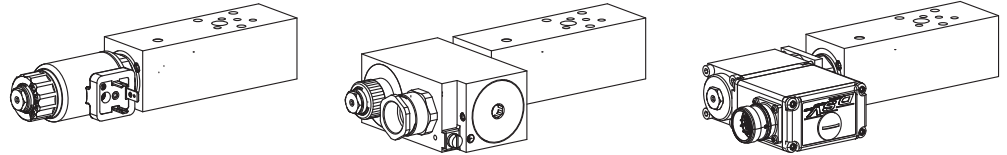


**Proportional pressure reducing valve
 Flange and sandwich construction**

 • $p_{max} = 400 \text{ bar}$
NG4-Mini[®]

DESCRIPTION

Pilot operated proportional pressure reducing valves NG4-Mini. Flange and sandwich construction according to Wandfluh standard with 4 ports. Incorporated are proportional pressure relief cartridges size M22x1,5 according to ISO 7789. The steel bodies for flange constructions are painted with a two component painting and the bodies for sandwich constructions are 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. NG4-Mini valves are used where both, reduced dimensions and weight are important.

TYPE CODE

		M	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A04	-	<input type="text"/>	-	<input type="text"/>	#	<input type="checkbox"/>
Pressure reducing valve												
Pilot operated (from connection P)	<input type="checkbox"/>	Q										
Pilot operated	<input type="checkbox"/>	V										
Proportional	<input type="checkbox"/>	P										
Proportional explosion execution Ex d (Pilot operated execution only "V")	<input type="checkbox"/>	B										
Proportional with integrated electronics	<input type="checkbox"/>	V										
Flange construction	<input type="checkbox"/>	F										
Sandwich construction	<input type="checkbox"/>	S										
Mounting interface acc. to Wandfluh standard, NG4-Mini												
Type list / Function:		<i>flange construction</i>				<i>sandwich construction</i>						
		from P → A	<input type="checkbox"/>	P/A		in P	<input type="checkbox"/>	P				
						in A	<input type="checkbox"/>	A				
						in B	<input type="checkbox"/>	B				
Nominal pressure levels, nominal voltage, etc.: see data sheet of the installed screw-in cartridges												
Examples:	MVPFA04 - P/A -	<input type="text"/>	20 - G24/WD - HBO									
	MVBSA04 - A -	<input type="text"/>	350 - G24/L15 - D1									
	MQVSA04 - B -	<input type="text"/>	100 - 12C1R1									
Design-Index (Subject to change)												

GENERAL SPECIFICATIONS

Description	Pilot operated proportional pressure reducing valve	
Nominal size	NG4-Mini according to Wandfluh standard	
Constructions	Flange or sandwich	
Operations	Proportional solenoid	
Mounting	3 fixing holes for socket head cap screws M5 or studs M5	
Connections	Threaded connection plates Multi-flange subplates Longitudinal stacking system	
Weight:	• Flange type	m = 1,23 kg
(without screw-in cartridge)	• Sandwich type	m = 1,24 kg

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.	Q_{max}^*
MVPPM22	pilot operated	2.3-629	20 l/min
MVPPM22**	pilot operated	2.3-630	20 l/min
MQPPM22	pilot operated from connection P	2.3-641	20 l/min
MQPPM22**	pilot operated from connection P	2.3-640	20 l/min
MVCPM22**	pilot operated, explosion proof EEx em	2.3-634	20 l/min
MVBPM22	pilot operated, explosion proof Ex d	2.3-635	20 l/min
MVVPM22	pilot operated, with integrated electronics	2.3-631	20 l/min
MQVPM22	pilot operated from connection P, with integrated electronics	2.3-642	20 l/min

* Can deviate from the value on the data sheets of the screw-in cartridges.

** Do not use anymore for new applications.


REMARK!

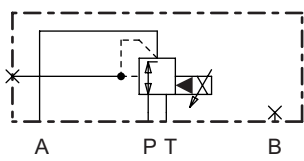
Detailed performance data and additional hydraulic and electric specifications may be drawn from the data sheets of the corresponding installed screw-in cartridge.


CAUTION!

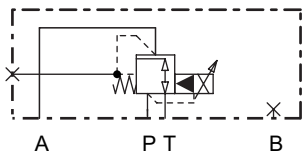
The performance data especially the „**pressure-flow-characteristic**„ on the data sheets of the screw-in cartridges refer to the screw-in cartridges only. The additional pressure drop of the flange body respectively sandwich body must be taken into consideration.

TYPE LIST / FUNCTION

Flange construction:

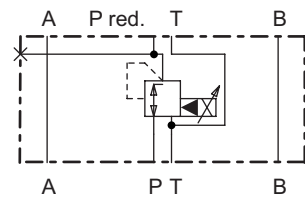


MV.FA04-P/A

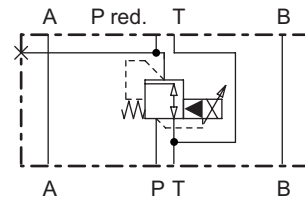


MQ.FA04-P/A

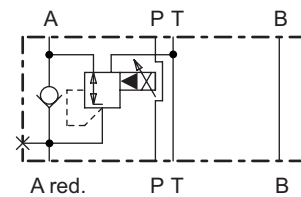
Sandwich construction:



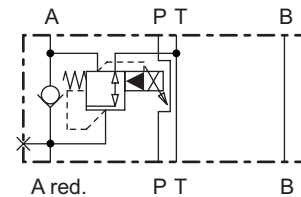
MV.SA04 - P



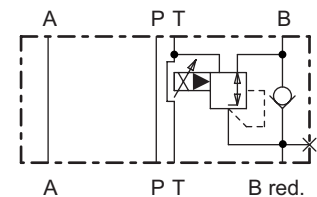
MQ.SA04 - P



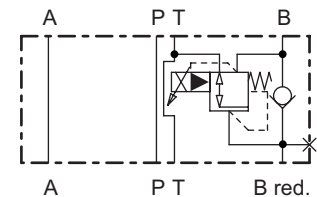
MV.SA04 - A



MQ.SA04 - A



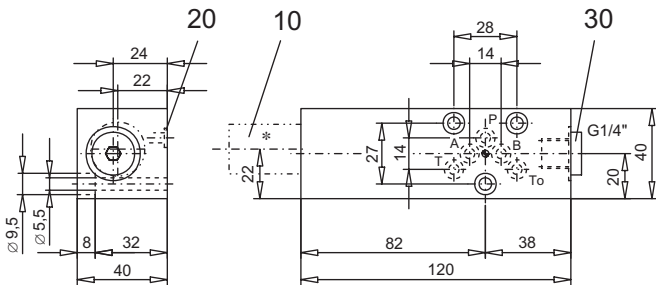
MV.SA04 - B



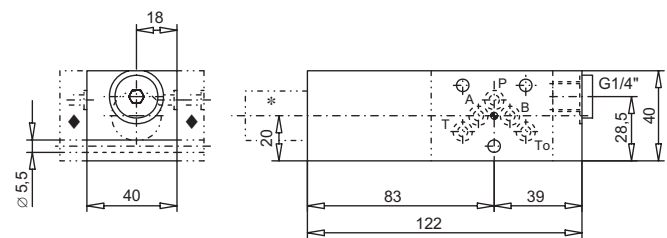
MQ.SA04 - B

DIMENSIONS

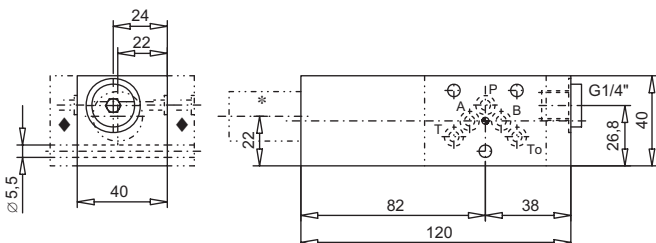
Flange construction



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.

◆ Distance plate BDP4/... must be ordered separately.

PARTS LIST

Position	Article	Description
10	617.3 ...	Screw-in cartridge
20	160.2052	O-ring ID 5,28x1,78
30	238.2406	Plug VSTI G1/4"-ED (only flange and sandwich type in P)

ACCESSORIES

Proportional amplifier	register 1.13
Distance plate BDP4/12 (12 mm)	art. no. 173.1450
Distance plate BDP4/20 (20 mm)	art. no. 173.1451
Distance plate BDP4/30 (30 mm)	art. no. 173.1452

Technical explanation see data sheet 1.0-100