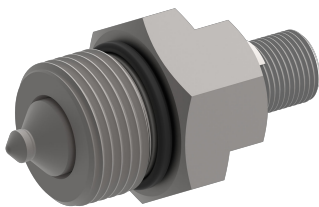


Flow valve

Throttle valve

$Q_{\max} = 50 \text{ l/min}$, $p_{\max} = 350 \text{ bar}$
poppet type, mechanically adjustable
Type series: MDPWA-5...



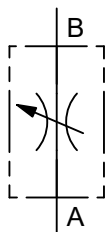
- Screw-in cartridge valve
- For cavity AW
- All external parts with zinc-nickel plating according to DIN EN ISO 19598
- Leak-free shut-off function
- For space-saving direct mounting in manifold blocks or housings
- Function possible in both directions.
- Available with hand-knob or tamper-proof cap

Description

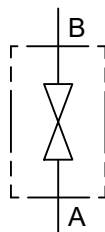
These throttle valves, series MDPWA-5..., are size 5, mechanically operated screw-in cartridge valves with an M20×1.5 mounting thread. The valves are designed on the poppet/seat principle, and they are therefore virtually leak-free in both directions of flow in the closed position. The pressure should preferably be connected to port A. These valves are mainly used

in mobile and stationary applications where a flow needs to be manually throttled or blocked. The setting is by means of an adjusting spindle. All external parts of the screw-in valves are zinc-nickel plated and are thus suitable for use in the harshest operating environments. For installation and further information, please refer to the section related data sheets.

Symbol



Throttle valve



Drain valve

Technical data

General characteristics	Description, value, unit
Function group	Flow valve
Function	Throttle valve
Design	Screw-in cartridge valve
Controls	mechanically adjustable
Characteristic	poppet type
Construction size	NG 5
Thread size	M20×1,5
Mounting attitude	unrestricted
Weight	0.08 kg
Cavity acc. factory standard	For cavity AW
Tightening torque steel	50 Nm
Tightening torque aluminium	50 Nm
Tightening torque tolerance	± 10 %
Minimum ambient temperature	- 30 °C
Maximum ambient temperature	+ 80 °C
Surface protection	All external parts with zinc-nickel plating according to DIN EN ISO 19598
Sealing material	see ordering code
Seal kit order number	NBR: DS-410-N / FKM: DS-410-V

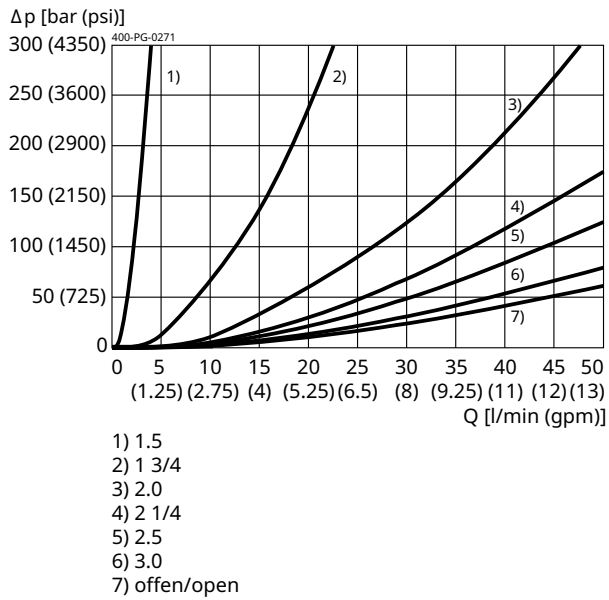
Hydraulic characteristics	Description, value, unit
Maximum operating pressure	350 bar
Maximum flow rate	50 l/min
Flow direction	see symbol
Hydraulic fluid	HL and HLP mineral oil according to DIN 51 524; other fluids on request!
Minimum fluid temperature	- 30 °C
Maximum fluid temperature	+ 80 °C
Viscosity range	10 ... 650 mm ² /s (cSt)
Recommended viscosity range	15 ... 250 mm ² /s (cSt)
Minimum fluid cleanliness (cleanliness class according to ISO 4406:1999)	class 20/18/15

Performance graphs

measured with oil viscosity 33.0 mm²/s (cSt)

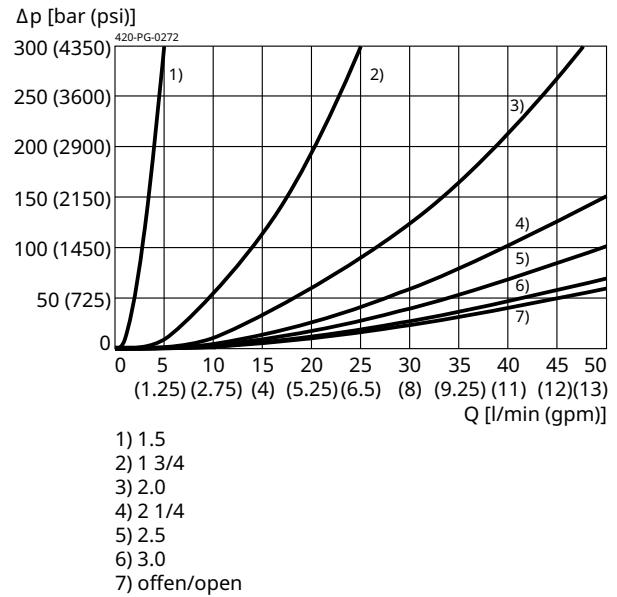
$\Delta p = f(Q)$ Pressure drop-flow rate characteristic

Throttle setting per revolution A to B



$\Delta p = f(Q)$ Pressure drop-flow rate characteristic

Throttle setting per revolution B to A

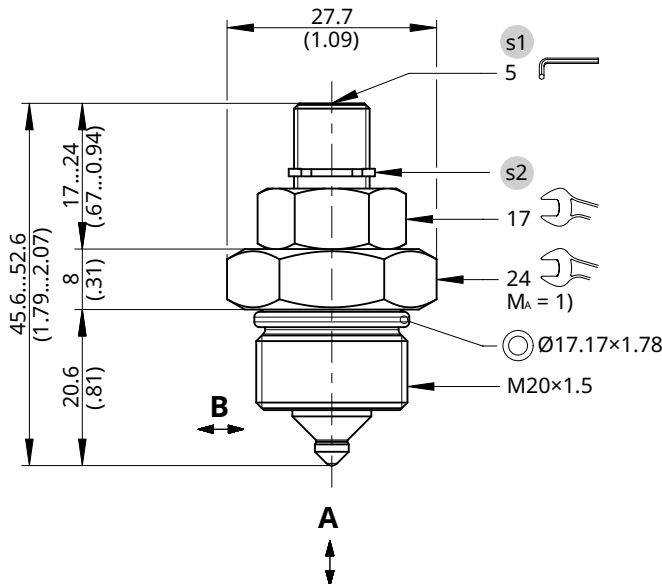


Dimensions and sectional view

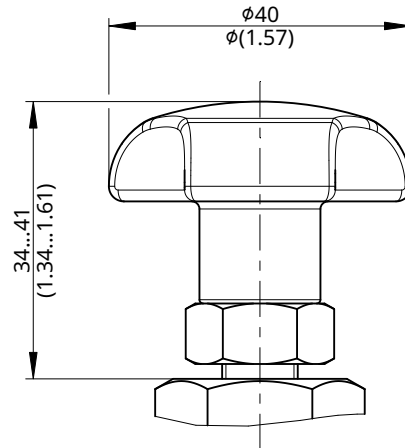
Beispiel für die Masseinheit:
Exampel for the dimensional units:

0.79 = 0.79 mm millimeter
(.031) = 0.031" inch

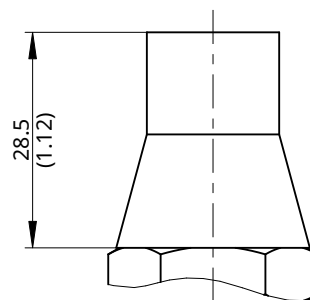
Version "S": Einstellschraube mit Innensechskant (Standard)
Version "S": adjustment screw with internal hexagon (standard)



Version "H": Einstellschraube mit Handrad
Version "H": adjustment screw with handknob



Einstellschraube mit Sicherungskappe
adjustment screw with tamper-proof cap



Installation information

NOTE!
1) When fitting the screw-in cartridge valve, use the specified tightening torque. The value can be found in the chapter "Technical data".

NOTE!
Set the required pressure with the adjusting screw s1. After you have set the valve, lock the adjusting screw s1 with the lock nut.

NOTE!
Valve settings can be sealed by fitting the tamper-proof cap. To fit the cap, the snap ring s2 has to be removed. Subsequent adjustment is only possible by destroying the tamper-proof cap.

NOTE!
The seals are not available individually. The seal kit order number can be found in the chapter "Technical data".

ATTENTION!
Only qualified personnel with mechanical skills may carry out any maintenance work. Generally, the only work that should ever be undertaken is to check, and possibly replace, the seals. When changing seals, oil or grease the new seals thoroughly before fitting them.

Ordering code

	Ex.	M	DP	W	A	-	5	S	-	1
M	=	flow-regulating valve								
DP	=	throttle cartridge								
W	=	cavity type AW								
A ... Q	=	standard model according to valid data sheet								
Z ... R	=	special model (on request)								
5	=	nominal size 5								
S	=	adjustment screw with internal hexagon (standard)								
H	=	adjustment screw with hand knob								
(blank)	=	NBR (nitril-butadien-rubber / BUNA) seals (standard)								
V	=	FKM (fluorocarbon rubber / VITON) seals (special seals on request)								
1 ... 9	=	technical design no. (omit by ordering)								



IMPORTANT!

When required, the tamper-proof cap (the adjustment seal) must be ordered separately in plain language.

Related data sheets

Reference	Description
400-P-040011	Form tools
400-P-040251	Cavity AW

info.ch@bucherhydraulics.com

www.bucherhydraulics.com

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