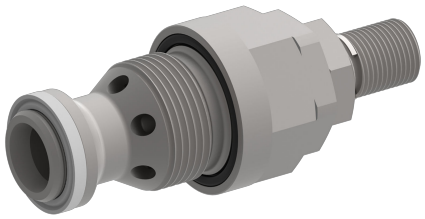
BUCHER hydraulics

Flow valve
Throttle valve

Q_{max} = 140 l/min, p_{max} = 350 bar
poppet type, mechanically adjustable
Type series: MDPCA-10...

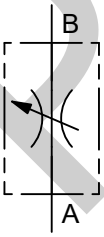


- Screw-in cartridge valve
- For cavity DC
- All external parts with zinc-nickel plating according to DIN EN ISO 19598
- Installation in threaded port body type DC-12
- Leak-free shut-off function
- Function possible in both directions.
- Available with hand-knob

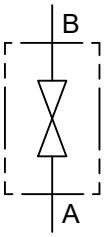
Description

These throttle valves, series MDPCA-10..., are size 10, mechanically operated screw-in cartridge valves with an M24×1.5 mounting thread. The vavles 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

Phase-Out

Technical data

General characteristics	Description, value, unit
Product status	Phase-Out
Alternative product	FCVL-12 (520-P-020230)
Function group	Flow valve
Function	Throttle valve
Design	Screw-in cartridge valve
Controls	mechanically adjustable
Characteristic	poppet type
Construction size	NG 10
Thread size	M24×1,5
Mounting attitude	unrestricted
Weight	0.19 kg
Cavity acc. factory standard	For cavity DC
Tightening torque steel	65 Nm
Tightening torque aluminium	65 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
Seal kit order number	NBR: DS-253-N / FKM: DS-253-V

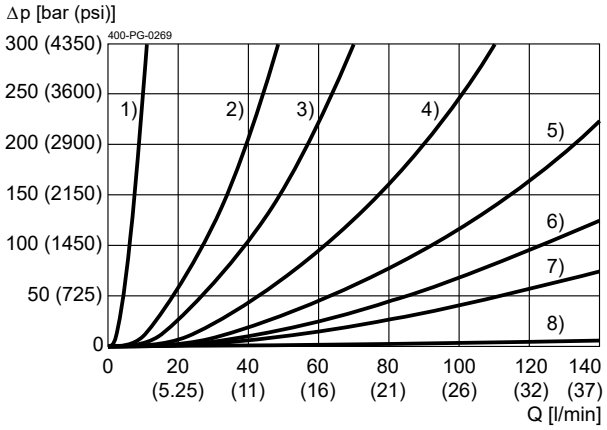
Hydraulic characteristics	Description, value, unit
Maximum operating pressure	350 bar
Maximum flow rate	140 l/min
Flow direction	see symbol
Hydraulic fluid	HL and HLP mineral oil according to DIN 51 524; other fluids on request!
Minimum fluid temperature	- 30 °C
Maximum fluid temperature	+ 80 °C
Viscosity range	10 ... 650 mm^2/s (cSt)
Recommended viscosity range	15 ... 250 mm^2/s (cSt)
Minimum fluid cleanliness (cleanlineless class according to ISO 4406:1999)	class 20/18/15

Phase-Out

Performance graphs

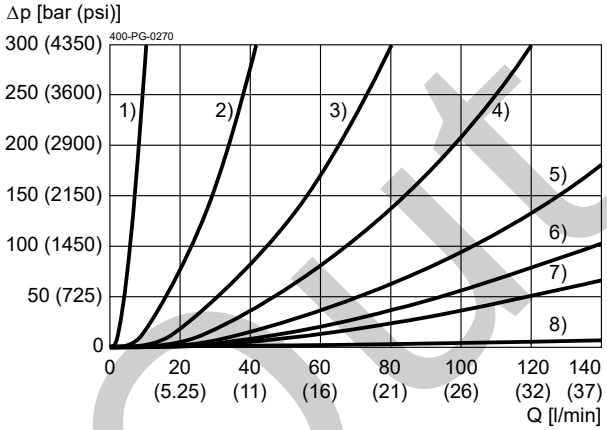
measured with oil viscosity 33.0 mm²/s (cSt)

Δp = f (Q) Pressure drop-flow rate characteristic



1) 1.0
2) 1.5
3) 2.0
4) 2 1/4
5) 2.5
6) 2 3/4
7) 3.0
8) offen/open

Δp = f (Q) Pressure drop-flow rate characteristic
Throttle setting per revolution B to A



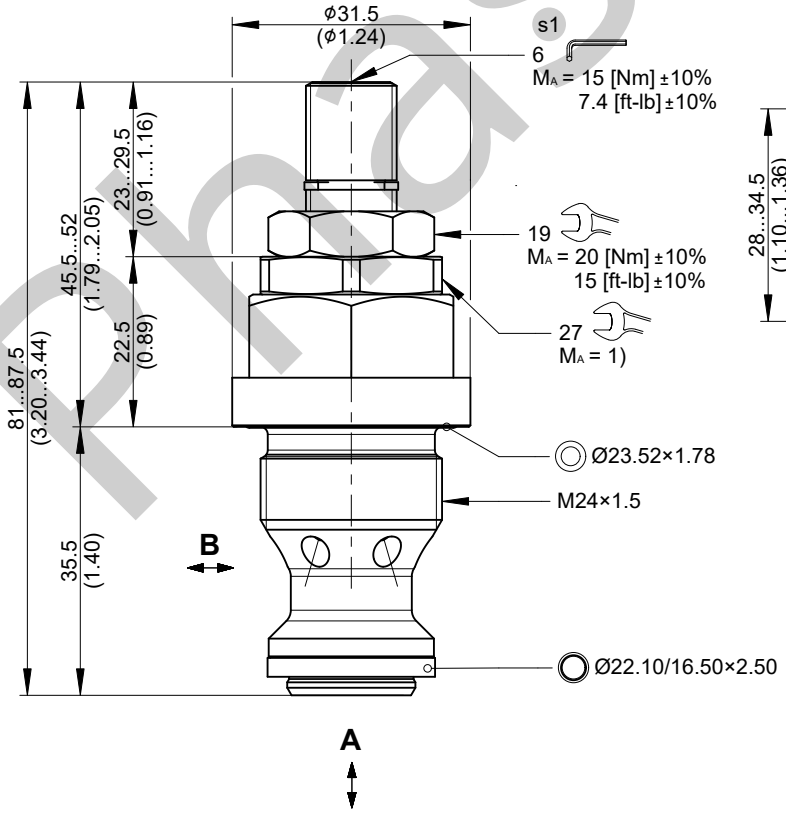
1) 1.0
2) 1.5
3) 2.0
4) 2 1/4
5) 2.5
6) 2 3/4
7) 3.0
8) offen/open

Dimensions and sectional view

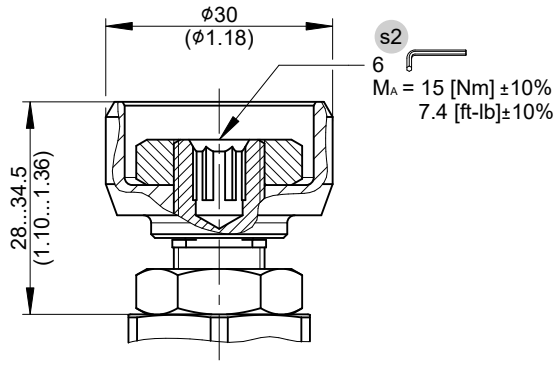
Beispiel für die Masseinheit:
Exampel for the dimensional units:

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



Phase-Out

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

ATTENTION!
Difficult adjustment by handknob from 150 bar, it is recommended to adjust the adjusting spindle with the hexagon socket (s2).

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 | C | A - 10 | S | _ - 1

M	=	flow-regulating valve
DP	=	throttle cartridge
C	=	cavity type DC
A ... Q	=	standard model according to valid data sheet
Z ... R	=	special model (on request)
10	=	nominal size 10
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)

Related data sheets

Reference	Description
400-P-040011	Form tools
400-P-060111	Cavity DC
400-P-740101	Threaded port body DC-12

Phase-Out

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