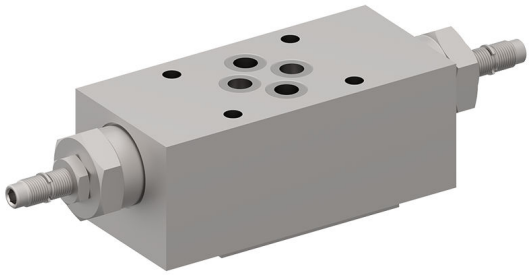
BUCHER hydraulics

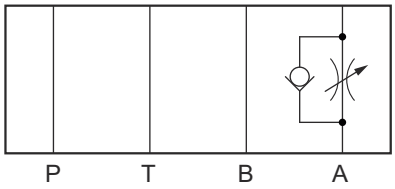
Flow valve
Throttle check valve

Q_{max} = 21 gpm, p_{max} = 5000 psi
Direct acting, spool type,
Type series: SMDR-_-6-...

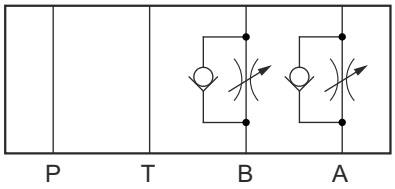


- Stack valve
- External parts of screw-in valves with zinc-nickel plating according to DIN EN ISO 19598
- Stackable valve elements
- High degree of flexibility due to the possibility of different combinations

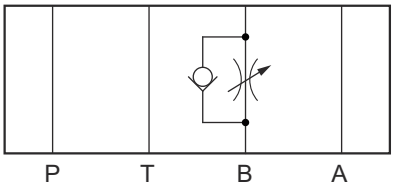
Symbol



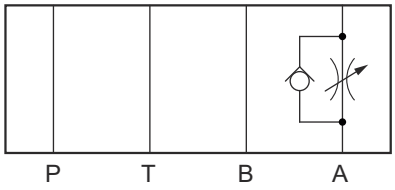
SMDR-AZ-…



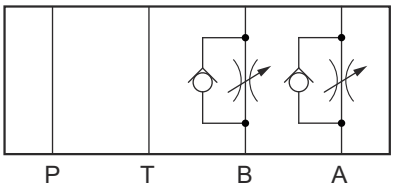
SMDR-ABZ-…



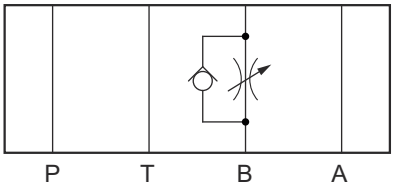
SMDR-BZ-…



SMDR-AA-…



SMDR-ABA-…



SMDR-BA-…

Description

The throttle check valves, series SMDR..., are size 6, direct acting stack valves with interface to ISO 4401-03-02. They are designed on the proven sliding-spool principle. The integral check function allows free flow in one direction (opening pressure approx. 0.7 bar) and the set, throttled flow in the opposite direction. The design of the throttle ensures automatic self-cleaning under reverse flow. The setting is made at the self-locking adjusting screw and can be additionally secured with the lock nut. There are different versions available.

These valves are mainly used in mobile and industrial applications, and provide high flexibility for stackable system solutions. For installation, please refer to the section related data sheets.

Technical data

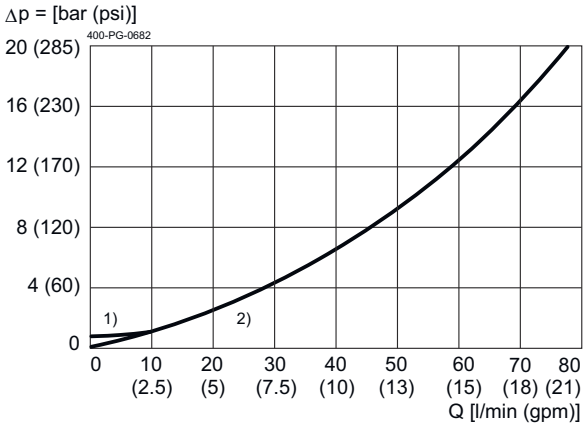
General characteristics	Description, value, unit
Function group	flow valve
Function	throttle check valve
Design	stack valve
Characteristic	direct acting, spool type
MTTFd value	150 years
Construction size	NG 6
Mounting attitude	unrestricted
Weight	2.85 lb
Interface according to	ISO 4401-03-02
Minimum ambient temperature	- 22 °F
Maximum ambient temperature	+ 176 °F
Surface protection	external parts of screw-in valves with zinc-nickel plating according to DIN EN ISO 19598
Surface protection addition	stack-mounting body with temporary corrosion protection
Sealing material	see ordering code
Seal kit order number	NBR: DS-202-N / FKM: DS-202-V

Hydraulic characteristics	Description, value, unit
Maximum operating pressure	5000 psi
Maximum flow rate	21 gpm
Flow direction	see symbol
Hydraulic fluid	HL and HLP mineral oil according to DIN 51 524; other fluids on request!
Minimum fluid temperature	- 22 °F
Maximum fluid temperature	+ 176 °F
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

Performance graphs

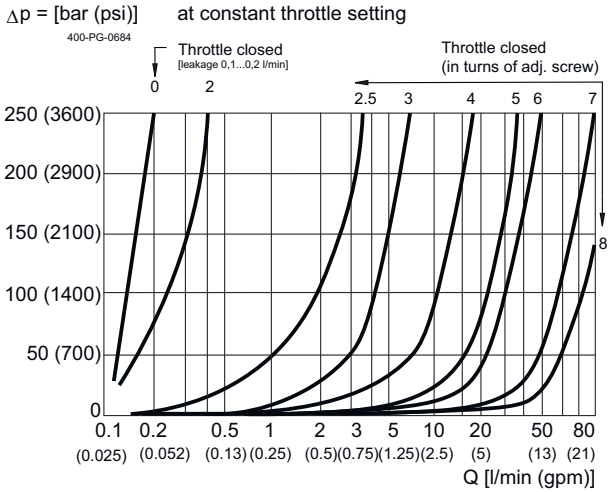
measured with oil viscosity 33.0 mm²/s (cSt)

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



1) through check valve: throttle cosed
2) through check valve: throttle open

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

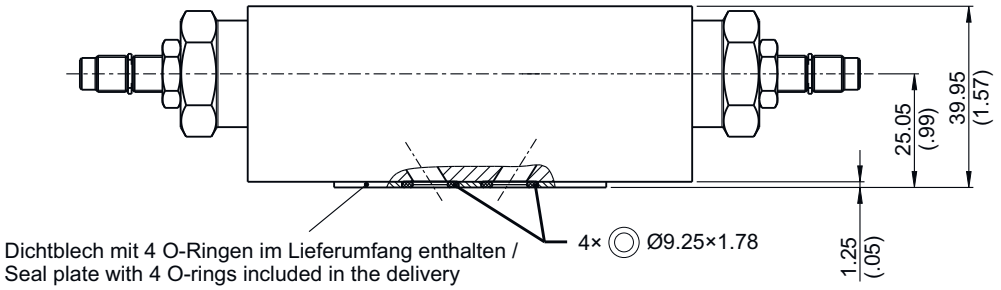


Installation

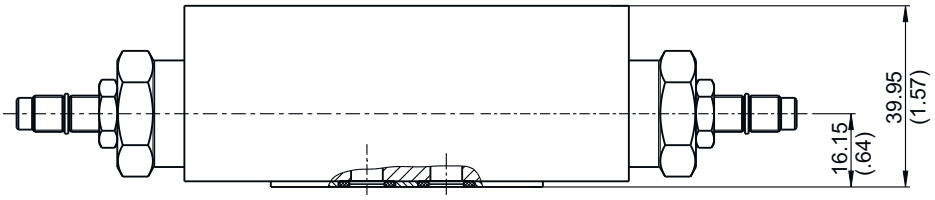
Beispiel für die Masseinheit:
Example for the dimensional units:

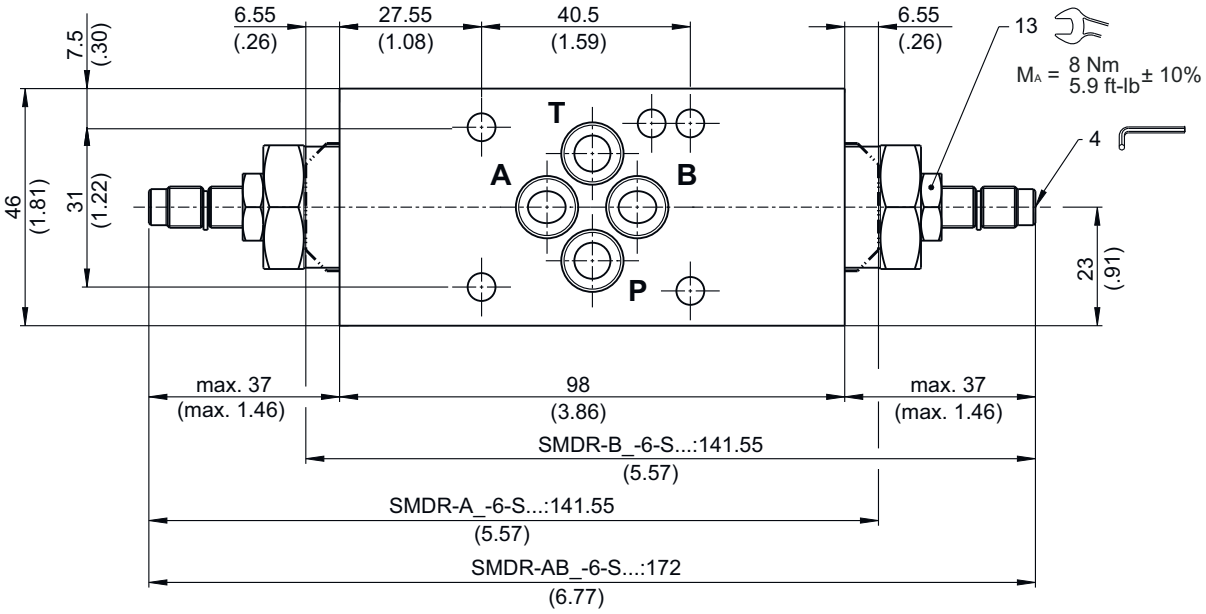
0.79 = 0.79 mm millimeter
(.031) = 0.031" inch

Funktion (Drosselung) im Ablauf / function (throttling) in outlet

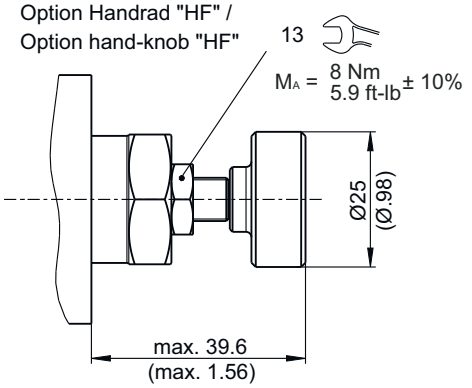


Funktion (Drosselung) im Zulauf / function (throttling) in inlet



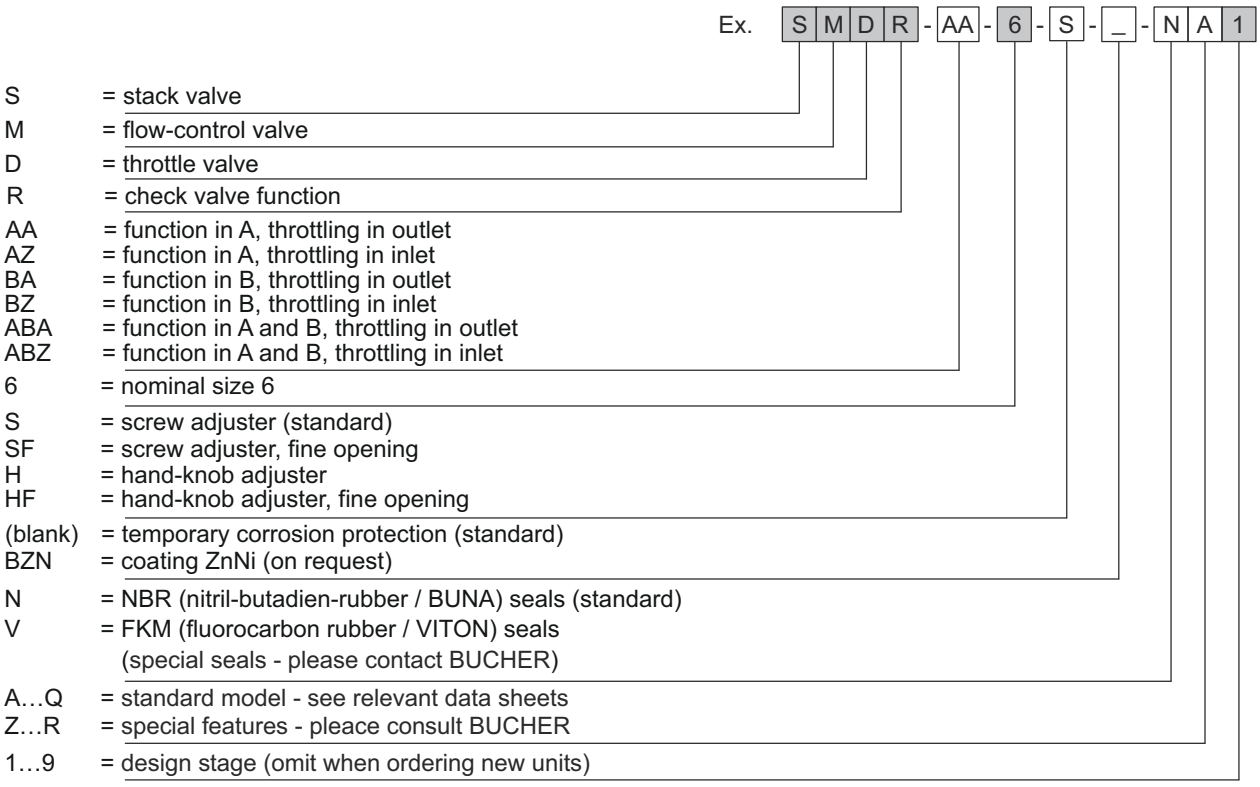


Option Handrad "HF" /
Option hand-knob "HF"



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



Related data sheets

Reference	Description
400-P-030501	interface ISO 4401-03... (Size 6)
400-P-010101	MTTFd Values for Hydraulic Valves

info.ch@bucherhydraulics.com **www.bucherhydraulics.com**

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