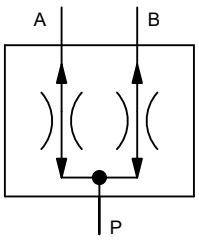
BUCHER hydraulics

Flow valve
Flow divider

Q_{max} = 50 l/min, p_{max} = 315 bar
Bidirectional,
Type series: MTDA08HG1

- Pipe line mounting valve
- ZnNi plating (≥480h DIN EN ISO 9227 NSS)
- Division accuracy up to 1,5% based on operating flow range
- Robust, uncomplicated, reliable
- Service-friendly
- Flows can be split or merged with accuracy (divide/ combine functions)

Symbol



Description

The MTDA08HG is a flow divider with very high division accuracy and a large operating flow range. With this new valve, division accuracy is specified in relation to the supply flow rate and not, as is usual in the market, to the nominal flow rate. They divide a flow into two usually equal parts (1:1). When flow passes through valve in the opposite direction, the two part-flows are combined into one single flow (added). The dividing and combining functions are largely independent of the pressures of the two divided flows and of the fluid viscosity.

Technical data

General characteristics	Description, value, unit
Function group	flow valve
Function	flow divider
Design	pipe line mounting valve
Characteristic	bidirectional
MTTFd value	150 years
Thread size	G 3/8”
Mounting attitude	horizontal
Weight	2.2 kg
Minimum ambient temperature	- 20 °C
Maximum ambient temperature	+ 80 °C
Surface protection	ZnNi plating (≥480h DIN EN ISO 9227 NSS)
Salt spray test in accordance with DIN EN ISO 9227	corrosion resistance > 720 hours
Sealing material	NBR (nitril-butadien-rubber / BUNA) seals

Hydraulic characteristics	Description, value, unit
Maximum operating pressure	315 bar
Maximum flow rate	50 l/min
Control flow range	16 - 50 l/min
Division accuracy	1.5 %
Flow direction	see symbol
Hydraulic fluid	HL and HLP mineral oil according to DIN 51 524; other fluids on request!
Minimum fluid temperature	- 20 °C
Maximum fluid temperature	+ 80 °C
Viscosity range	10 ... 250 mm^2/s (cSt)
Minimum fluid cleanliness (cleanlineless class according to ISO 4406:1999)	class 20/18/15

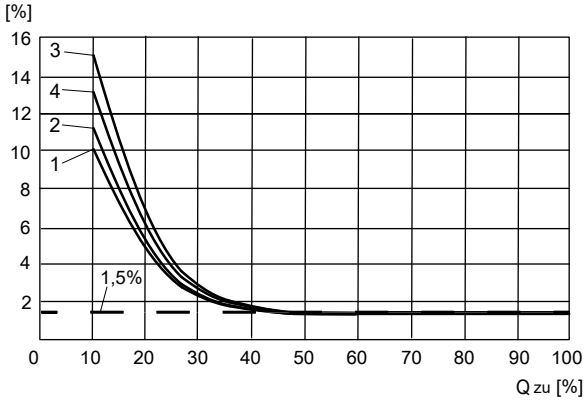
NOTE!
Division accuracy at max. load difference PA : PB = 100 bar (but max. of 5% at 50% of the nominal flow rate and load difference PA : PB = 200 bar)

Performance graphs

measured with oil viscosity 35.0 mm²/s (cSt)

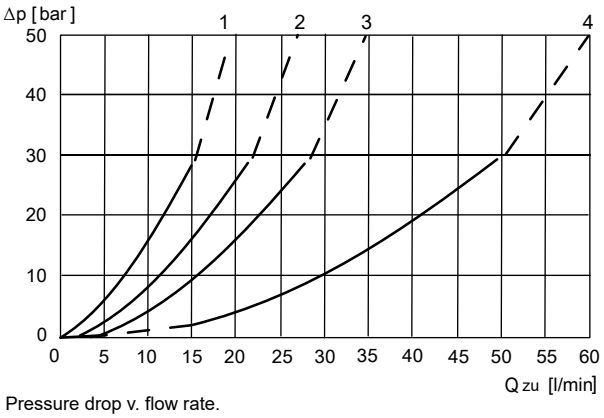
% = f (Qzu) Division accuracy

Division accuracy ±1.5 % of the maximum flow rate (however at least >40 %) based on control flow range.



1) = 16 l/min
2) = 25 l/min
3) = 32 l/min
4) = 50 l/min

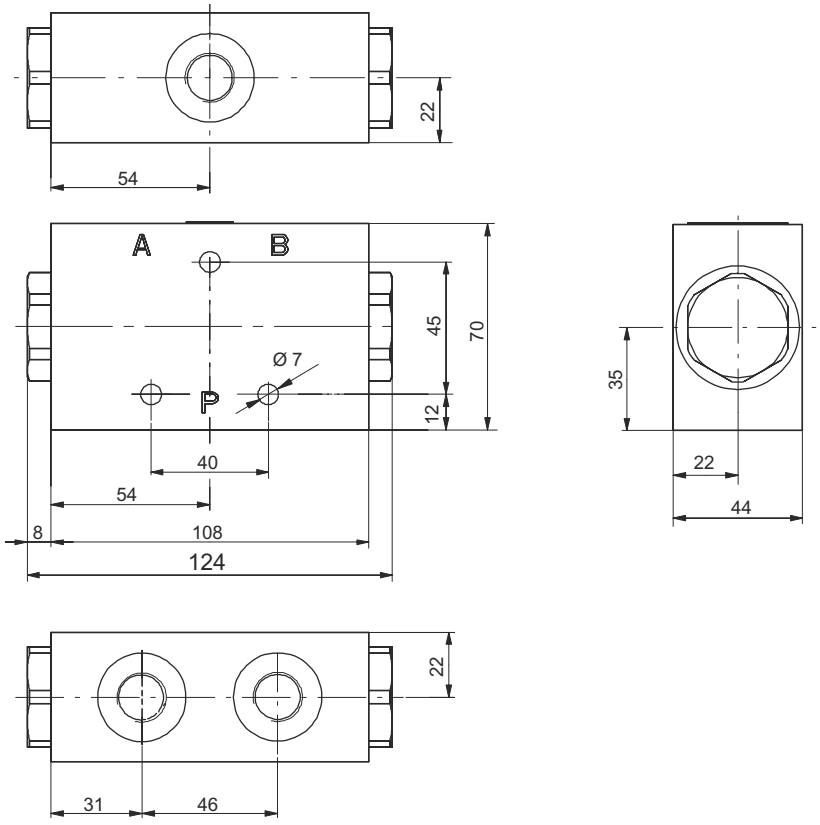
p = f (Q) Pressure-flow rate



Pressure drop v. flow rate.

1) = Flow control range 5 - 16 l/min
2) = Flow control range 7,5 - 25 l/min
3) = Flow control range 10 - 32 l/min
4) = Flow control range 16 - 50 l/min

Installation

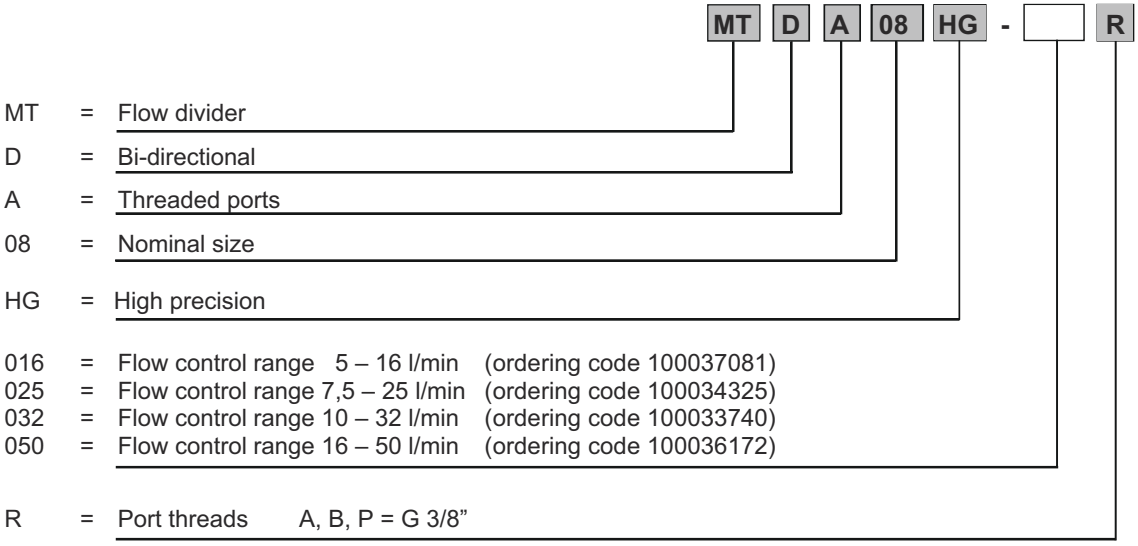


ATTENTION!
Expert and product knowledge is required for the layout of this valve type. Use exclusively for the intended purpose within the indicated values. The valve manufacturer must be consulted for use of the appliance outside the specifications. All applications must be verified by sufficient tests to ensure safety in the application. The ultimate responsibility for safety during installation and use resides with the end appliance manufacturer.

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.

NOTE!
To prevent the weight of the spool causing division inaccuracies,the valve must be installed so that the spool axis is horizontal. When mounting the valve, make sure that the body is not subjected to any distorting forces. Do not use tapered-thread pipe fittings.

Ordering code



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