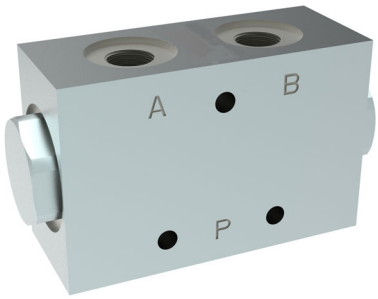
BUCHER hydraulics

indynamica drive and control products

Flow divider with very high division accuracy

Series MTDA08HG



- division accuracy 1,5% based on operating flow range
- standard-supply zinc-nickel coating
- robust, simple and reliable
- easy to service
- flows can be split or merged with accuracy (divide/combine functions).

1 Description

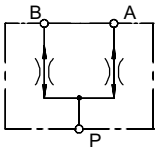
1.1 General

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 (see chart).
Another notable feature is the standard-supply zinc-nickel coating, with a corrosion-resistance of over 720 hours of salt-spray test, DIN EN ISO 9227. 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.

1.2 Application examples

- Work access platforms
- Lifting platform
- Car transporter
- Hydraulic plattform
- Hydraulic ramp
- Hydraulic door drive

2 Symbols



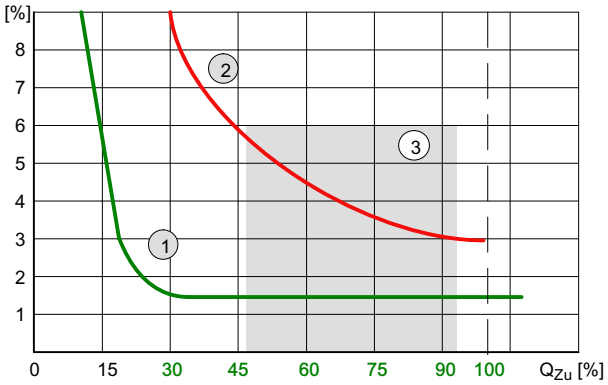
3 Technical data

General characteristics	Unit	Description, value
Maximum pressure	bar	250 continuous, 315 peak pressure
Control flow range	l/min	16 , 25 , 32 und 50
Division accuracy in control flow range	%	1,5 with maximum loading difference P_A:P_B = 200 bar and spool axis is horizontal
Oil temperature range	°C	-20 ... +80
Viscosity range	mm^2/s	10 ... 250
Oil cleanliness		minimum class 9 of NAS 2638 or class 19/17/14 of ISO 4406
Seals		(NBR) Nitrile Butadiene Rubber
Wight	kg	ca. 2,2
Port threads	A, B, P	G ⅜“ , DIN EN ISO 9974-1
Salt spray test		Cottosion resistant >720 hours

4 Characteristic curves

4.1 Division accuracy [%]

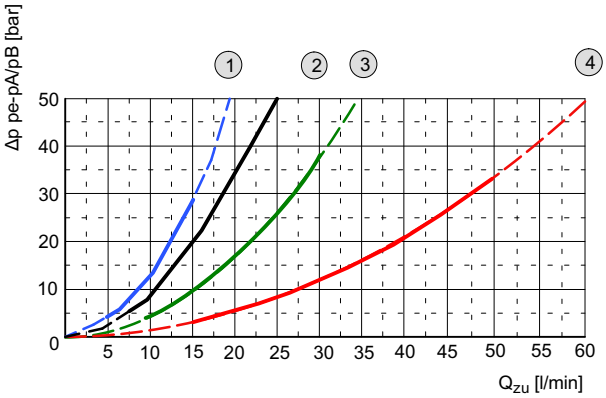
with oil viscosity of 35 mm²/s



1	**MTDA08HG** (high-precision) based on operating flow range
2	MTDA08 **standard** based on operating flow range
3	MTDA08 **standard** +/- 3 % based on nominal flow range

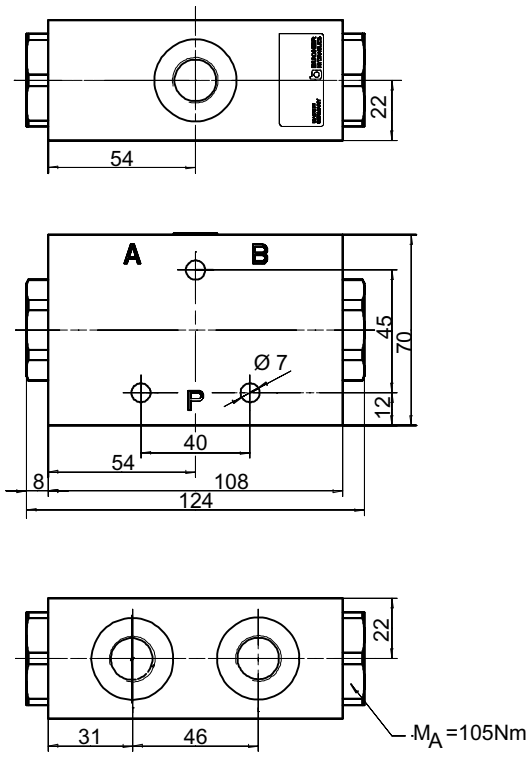
4.2 Pressure drop characteristics (Δ)

Pressure drop v. flow rate with oil viscosity of 35 mm²/s

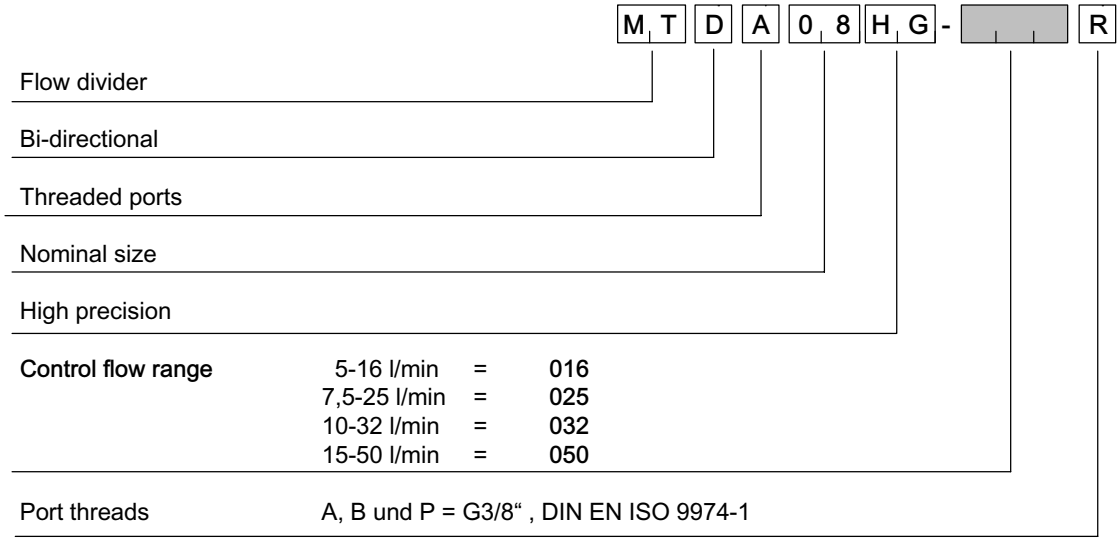


1	Control flow range = 5 - 15 l/min
2	Control flow range = 7,5 - 25 l/min
3	Control flow range = 10 - 32 l/min
4	Control flow range = 15 - 50 l/min

5 Dimensions



6 Ordering code



7 Installation and mounting

To prevent the weight of the spool causing division inaccuracies, the valve must be installed so that the spool axis is horizontal. Do not use tapered-thread pipe fittings.

Um To prevent distortion of the body and the spool-binding that this might cause, it is advisable to place flat washers under the body when mounting it, or under the first body and between the individual bodies when gang-mounting several valves.

8 Fluid

MTDA08HG Flow divider require fluid with a minimum cleanliness level of NAS 1638, Class 8 or ISO 4406, code 19/17/14.
We recommend the use of fluids that contain anti-wear additives for mixed-friction operating conditions. Fluids without appropriate additives can reduce the service life of pumps and motors.The user is responsible for maintaining, and regularly checking the fluid quality.

9 Fluid cleanliness class

Cleanliness class (RK) onto ISO 4406 and NAS 1638

Code ISO 4406	Number of particles / 100 ml			
	≤ 4 µm	≤ 6 µm	≤ 14 µm	NAS 1638
23/21/18	8000000	2000000	250000	12
22/20/18	4000000	1000000	250000	-
22/20/17	4000000	1000000	130000	11
22/20/16	4000000	1000000	64000	-
21/19/16	2000000	500000	64000	10
20/18/15	1000000	250000	32000	9
19/17/14	500000	130000	16000	8
18/16/13	250000	64000	8000	7
17/15/12	130000	32000	4000	6
16/14/12	64000	16000	4000	-
16/14/11	64000	16000	2000	5
15/13/10	32000	8000	1000	4
14/12/9	16000	4000	500	3
13/11/8	8000	2000	250	2