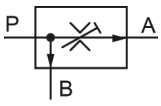
Flow valve
Flow control valve

Q_{max} = 70 l/min, p_{max} = 315 bar
Load-compensated, mechanical operation
Type series: MTKA...

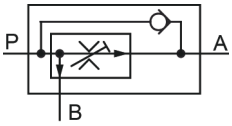
- Pipe line mounting valve
- Robust, uncomplicated, reliable
- Pressure relief function
- No maintenance needed, cost-saving
- Flow rates are unaffected by changes in temperature and load
- Optional ZnNi coating (≥480h DIN EN ISO 9227 NSS)

Symbol

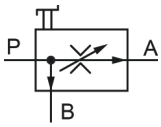
MTKA



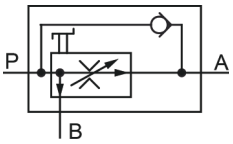
MTKA-R



MTKA-V



MTKA-VR



A = Constant flow
B = Surplus flow (can be pressurised)
P = Pump

Description

Series MTKA flow control valves divide the inlet flow (P) into a priority flow (A), which is fixed or manually adjustable, and into a surplus flow (B). The surplus flow can be pressurized and can therefore be supplied to an additional actuator. The pressure in the inlet line corresponds to that of the actuator with the highest load. When used as a 2-way flow control valve, the surplus flow outlet port (B) is plugged. For this application, please order the .../20 special feature. These valves are mainly used in mobile and industrial applications to regulate the speed of hydraulic actuators, such as cylinders and motors. For applications with high vibrations we recommend the version with detent (MTKAR).

Technical data

General characteristics	Description, value, unit
Function group	flow valve
Function	flow control valve
Design	pipe line mounting valve
Controls	mechanical operation
Characteristic	load-compensated
MTTFd value	150 years
Thread size	several, see chapter "Dimensions, Sectional View"
Mounting attitude	unrestricted
Weight	1.2 kg
Minimum ambient temperature	- 20 °C
Maximum ambient temperature	+ 80 °C
Surface protection addition	optional: ZnNi plating (≥480h DIN EN ISO 9227 NSS), stack-mounting body with temporary corrosion protection

Hydraulic characteristics	Description, value, unit
Maximum operating pressure	315 bar
Maximum flow rate	70 l/min
Constant flow range	3 - 65 [1] 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	- 20 °C
Maximum fluid temperature	+ 80 °C
Viscosity range	10 ... 300 mm^2/s (cSt)
Minimum fluid cleanliness (cleanlineless class according to ISO 4406:1999)	class 20/18/15
Min. pressure difference (pressure compensator)	3,5 ... 5 bar
Control accuracy (related to the nominal flow rate)	± 5 %
Internal leakage flow rate	max. 50 cm^3/minat minimum scale setting [2]

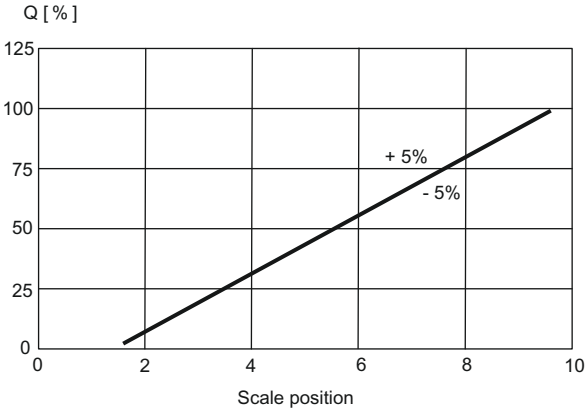
NOTE!
1) Priority flow adjustable. Priority flow fixed setting min. 3 bis max. 65 l/min (in steps of1l). Other priority flows/flow ranges on request.

NOTE!
2) Measured with surplus flow not under pressure and with 30 mm^3/s.

Performance graphs

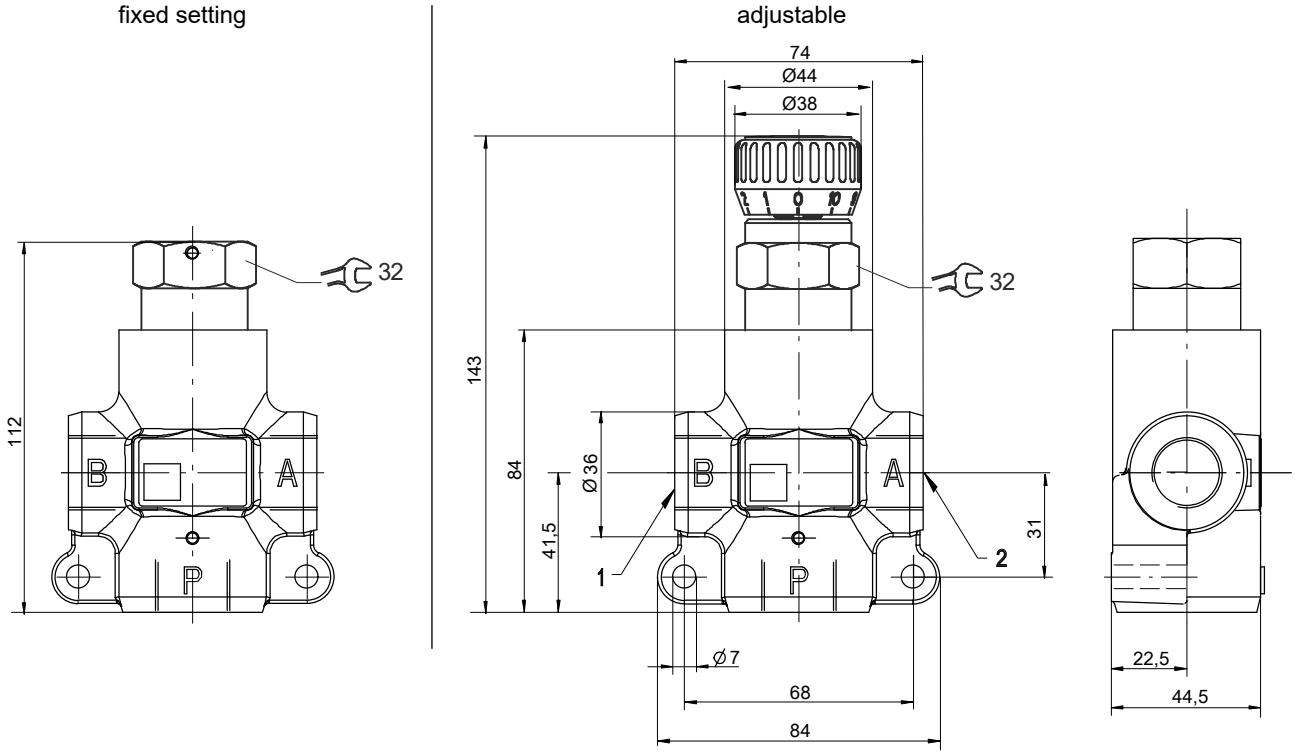
measured with oil viscosity 33.0 mm²/s (cSt)

Q = f (%; scale) Flow rate adjustment characteristic



Flow from P to A varies with the scale setting (adjustable models).

Installation



Port threads

Port	MTKA…-.M..	MTKA…-.G..
P, A, B	M22 x 1,5	G½“

1 = Surplus flow (option .../20 plugged)
2 = Constant flow

NOTE!
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.

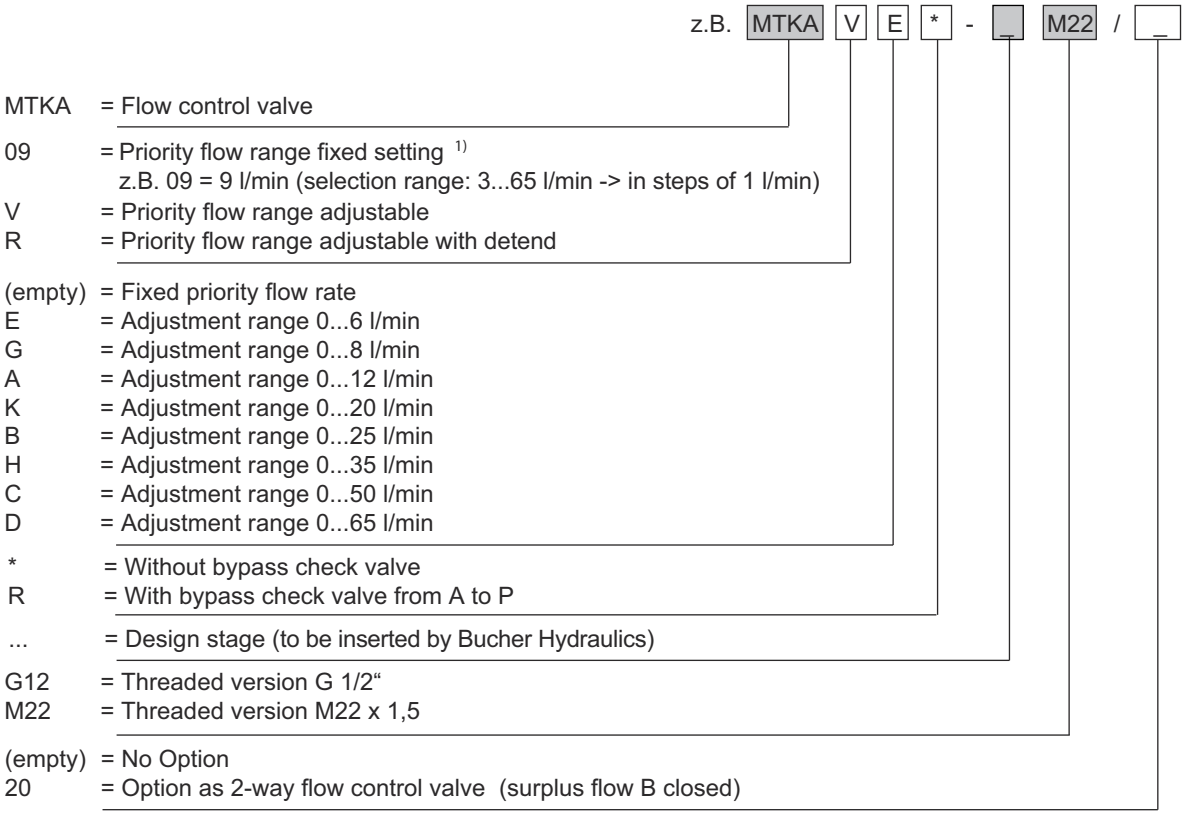
ATTENTION!
Only qualified personnel with mechanical skills may carry out any maintenance work. Generally, the only work that should ever be undertaken is to check, and possibly replace, the seals. When changing seals, oil or grease the new seals thoroughly before fitting them.

Application examples

Possibile applications:

- Harvester
- Towed machines
- Construction machines
- Forestry machines
- Municipal vehicles

Ordering code



1) Settings with HLP46 and 50°C (30 mm²/s)

Model code and ID number for quick order.

Typenbezeichnung	Identnummer
MTKAVE*-2G12	100028121
MTKAVG*-2G12	100034324
MTKAVA*-2G12	100020982
MTKAVK*-2G12	100027627
MTKAVB*-2G12	100021709
MTKAVH*-2G12	100030048
MTKAVC*-2G12	100021342
MTKAVD*-2G12	100021343

Typenbezeichnung	Identnummer
MTKAVE*-2M22	100029168
MTKAVG*-2M22	100032189
MTKAVA*-2M22	100020694
MTKAVK*-2M22	100031440
MTKAVB*-2M22	100020906
MTKAVH*-2M22	100026268
MTKAVC*-2M22	100020899
MTKAVD*-2M22	100021618

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