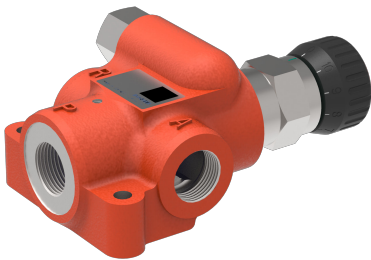


Flow valve

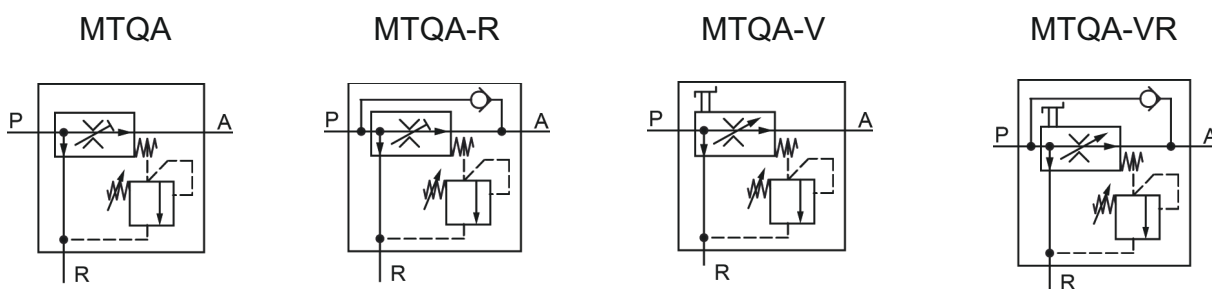
Flow control valve

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



- 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 ($\geq 480\text{h}$ DIN EN ISO 9227 NSS)

Symbol



A = Priority flow
P = Pump
R = Return line to tank

Description

Series MTQA flow control valves divide the inlet flow (P) into a priority flow (A) (fixed, or manually adjustable) and a surplus flow (R). The whole inlet flow is protected by an adjustable pressure relief valve. The surplus flow from port (R) should be returned directly to tank. The pressure in the inlet line corresponds to that of the

actuator. The pressure relief valve acts on the spring chamber of the pressure compensator. It is set by the factory according to the customer's specifications and provided with a safety cap. 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 (MTQAR).

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	1.3 kg
Minimum ambient temperature	- 20 °C
Maximum ambient temperature	+ 80 °C
Surface protection addition	optional: ZnNi plating (≥480h DIN EN ISO 9227 NSS)

Hydraulic characteristics	Description, value, unit
Maximum operating pressure	315 bar
Maximum flow rate	70 l/min
Constant flow range	0 - 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 (cleanliness 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 /min at minimum scale setting ²



NOTE!

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



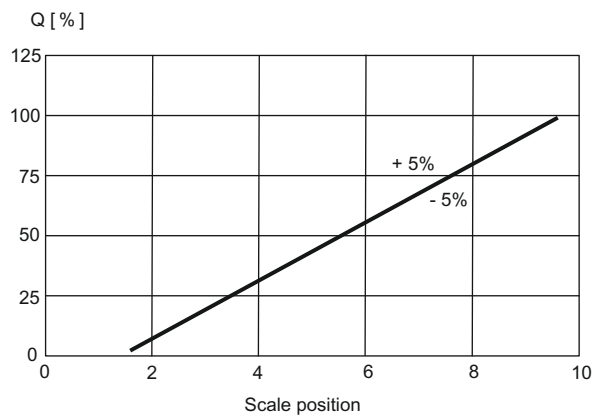
NOTE!

2) Measured with surplus flow not under pressure and with 30 mm³/s.

Performance graphs

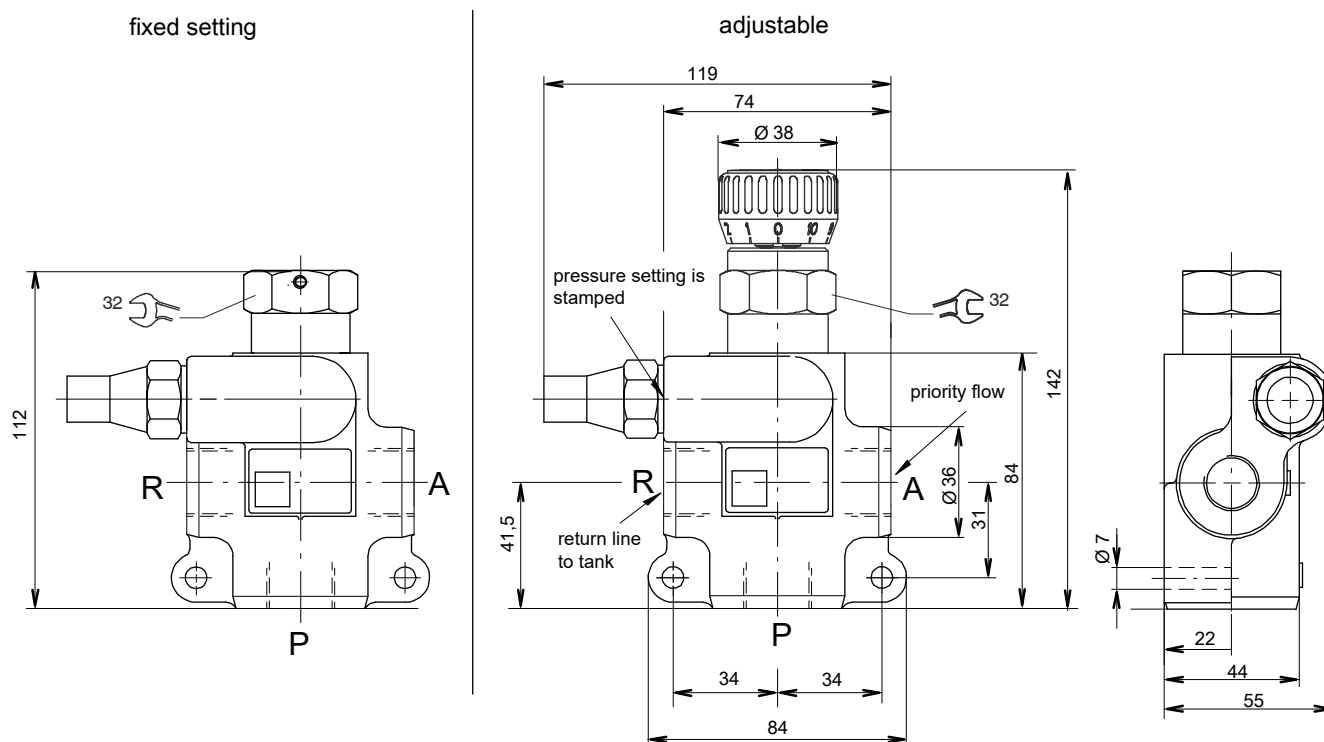
measured with oil viscosity 33.0 mm²/s (cSt)

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



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

Installation



Description	Port	MTQA...-M22...	MTQA...-G12...
Inlet flow	P	M22×1,5	G½"
Priority flow	A		
Surplus flow	R		



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

Possible applications:

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

Ordering code

z.B. MTQA V E * - M22 /

MTQA = Flow control valve

09 = Priority flow range fixed setting ¹⁾
z.B. 09 = 9 l/min (selection range: 3...65 l/min -> in steps of 1 l/min)

V = Priority flow range adjustable

R = Priority flow range adjustable with detend

(empty) = Fixed priority flow rate

E = Adjustment range 0...6 l/min

G = Adjustment range 0...8 l/min

A = Adjustment range 0...12 l/min

K = Adjustment range 0...20 l/min

B = Adjustment range 0...25 l/min

H = Adjustment range 0...35 l/min

C = Adjustment range 0...50 l/min

D = Adjustment range 0...65 l/min

* = Without bypass check valve

R = With bypass check valve from A to P

... = Design stage (to be inserted by Bucher Hydraulics)

G12 = Threaded version G 1/2"

M22 = Threaded version M22 x 1,5

250 = Setting for pressur relief valve in P ²⁾
minimum 40 bar, maximum 315 bar (in steps of 5 bar)

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

2) Specify the pressure setting in plain text.