

Throttles type Q, QR, QV, and FG

Throttles are flow valves. These valves type Q, QR, and QV are available in five sizes and are used to limit the flow in accumulator and control circuits. They feature a slotted throttle section which is much less sensitive to contamination than throttles with annular gaps (no edge filter effect). The fine throttles type FG are preferred for applications where the switching periods of directional valves have to be adjusted, the prevention of pressure surges is required, or for the dampening of oscillations etc. The throttle effect can be adjusted via the thread, altering the effective slot length.

These valves are only available as “tool adjustable” versions.



Nomenclature: Throttle
Restrictor check valves


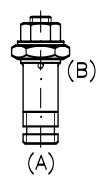
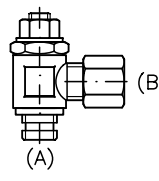

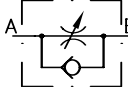

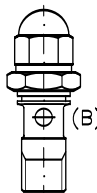
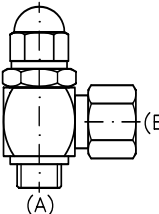
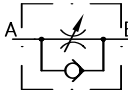
Design: Cartridge
Individual valve for pipe mounting
• Corner housing
• Banjo bolt
• Swivel housing

Adjustability: Tool adjustable

p_{max} : 300 400 bar

Q_{max} : 0 ... 80 lpm

Basic types and general parameters

Basic type and size	Flow Q_{max} (lpm) ¹⁾	Oper. pressure p_{max} (bar)	Schematic drawings of the devices			Symbol
			Standard screw-in throttle	Banjo bolt	Swivel housing	
FG, FG1, FG2	0.15	300				FG, Q  FG1, QR 
Q20, QR20, QV20	12	400				FG2, QV 
Q30, QR30, QV30	25	400				
Q40, QR40, QV40	50	400				
Q50, QR50, QV50	90	400				
Q60, QR60, QV60	120	315				

¹⁾ These figures apply for valves fully opened (observe red indicator) with a back pressure of approx. 50 bar (throttled direction of flow)

Additional versions

- Throttles for in-line installation.
- All sizes available as banjo bolt or swivel housing versions.

- Size Q..20 to Q..50 also available with corner housing, accepting pipes $\varnothing 6$, $\varnothing 8$, $\varnothing 10$, $\varnothing 12$, $\varnothing 16$, $\varnothing 20$ mm; type FG $\varnothing 6$, $\varnothing 8$ mm only)

Order examples

QR 50

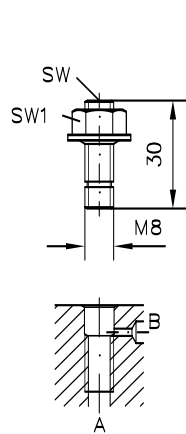
Screw-in throttle valve type QR, size 50,
free flow in direction A → B

FG 2

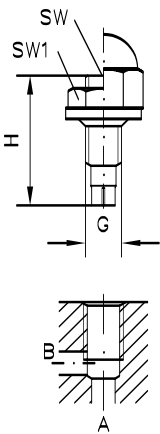
Restrictor check valve type FG,
free flow in direction B → A (coding 2)

Dimensions

Type FG..



Type Q...



Basic type	H	G	SW	SW 1	m (g)
FG, FG1, FG2	30	M 8	a/f 4	a/f 13	15
Q(R,V) 20	32	M 8 x 1	a/f 4	a/f 13	15
Q(R,V) 30	36	M 10 x 1	a/f 5	a/f 17	25
Q(R,V) 40	41	M 12 x 1.5	a/f 6	a/f 19	40
Q(R,V) 50	46	M 14 x 1.5	a/f 8	a/f 22	55
Q(R,V) 60	58	M 16 x 1.5	a/f 10	a/f 24	100

All dimensions are in mm, subject to change without notice !

Further information

- Throttle valves type Q, QR, QV
- Fine throttle type FG
- Throttle and restrictor check valves
type ED, RD, RDF
- Restrictor check valves type BC
type BE
- Screw-in check valves type BSE, QSE, MSE

D 7730
D 7275
D 7540
D 6969 B
D 7555 B
D 7121

- Orifice inserts type EB
- See also section “Devices for special applications”
(Screw-in valves and installation kits)

For page and section of the devices additionally listed,
see type index