4.1

Throttle and throttle check valve

Type MG/MK

Sizes 6 to 30
Up to 315 bar
Up to 400 L/min

Contents

Features

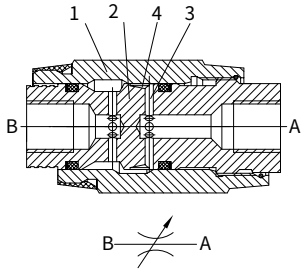
- Suitable for direct in-line mounting
- Pressure and viscosity dependent

Function and configuration

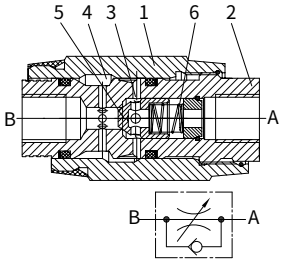
Valve types MG and Mk are throttle and throttle check valves with viscosity and pressure dependent.

·Type MG (throttle valve)
This valve throttles in both flow directions. Fluid flows through side hole (3) to the throttling orifice (4) formed between the valve body (2) and the adjustable sleeve (1). The cross-section of throttling orifice (4) may be steplessly varied by rotating the sleeve (1).

·Type MK (throttle check valve)
In throttling direction, the spring (6) and the fluid presses the poppet (5) onto its seat, check valve is blocked. Fluid flows via the side hole (3) to the throttling orifice (4), formed between the valve body (2) and the adjustable sleeve (1).
In the opposite direction, fluid pressure acts on the face of the poppet (5), check valve is opened and fluid flows freely. At the same time, part of the fluid flowing through the annular groove gets self-clearance as the desired effect.



MG version



MK version

Ordering code

		G	1 ■ 2	/		*	

Further details in clear text

No code = NBR seals
V = FKM seals

Throttle valve =MG
Throttle check valve =MK

Threaded connection
No code= G thread
2= Metric thread

Nominal size 6 =6
Nominal size 8 =8
Nominal size 10 =10
Nominal size 15 =15
Nominal size 20 =20
Nominal size 25 =25
Nominal size 30 =30

1.2 = 1.2 series

G = Threaded connection

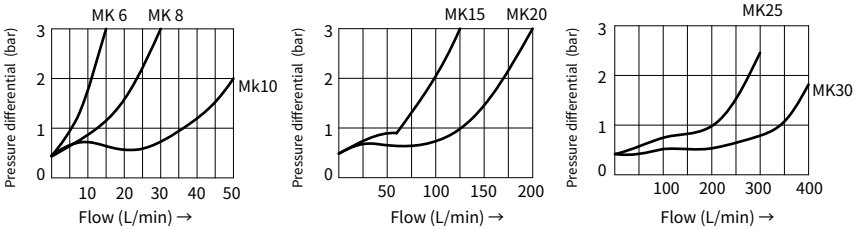
Technical data

Size		6	8	10	15	20	25	30
Weight	kg	0.3	0.4	0.7	1.3	2.2	3.6	4.5
Max.operating pressure	bar	315bar, 210bar (NPTF1 1/4, NPTF1 1/2)						
Cracking pressure for type MK	bar	0.5						
Max.flow-rate	L/min	400						
Viscosity rangge	mm^2/s	10 to 800						
Fluid temperature range	°C	-30 °C to +80 °C						
Fluid		Mineral oil; Phosphate ester						
Degree of contamination		Maximum permissible degree of fluid contamination: Class 9. NAS 1638 or 20/18/15, ISO4406						

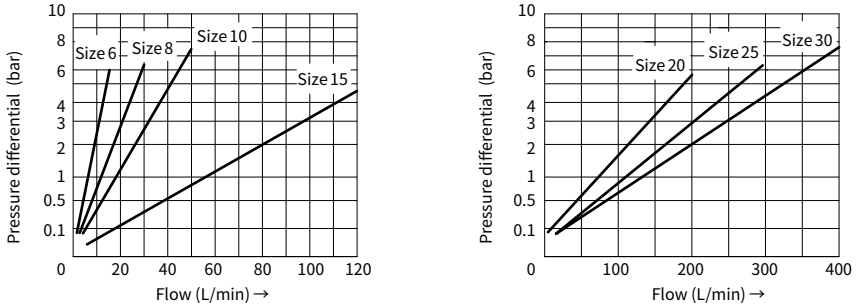
Characteristic curves

(Measured at ϑ_{oil}=40°C ±5°C , using HLP46)

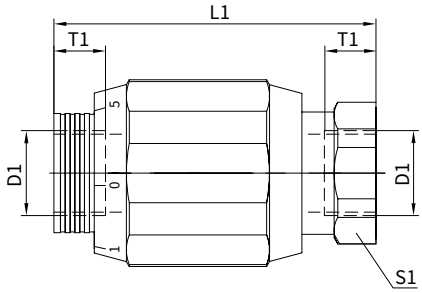
ΔP-Q curves via check valve, with closed throttle (type MK)

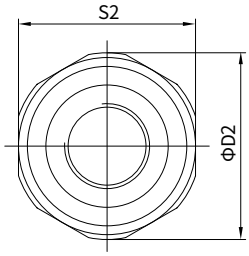


ΔP-Q curves via open throttle (type MG and MK)



Unit dimensions (MK and MG are the same) (Dimensions in mm)





Size	D1				D2	L1	S1	S2	T1
	G	Metric	NPTF	SAE					
6	G1/4	M14×1.5	NPTF 1/4	6SAE (9/16-18)	34	65 (SAE=75)	22	32	12 (SAE=14)
8	G3/8	M18×1.5	NPTF 3/8	8SAE (3/4-16)	38 (SAE=48)	65 (SAE=77)	24 (SAE=30)	36 (SAE=45)	12 (SAE=17)
10	G1/2	M22×1.5	NPTF 1/2	10SAE (7/8-14)	48	80 (SAE=93)	30	46	14 (SAE=20)
15	G3/4	M27×2	—	12SAE (1 1/16-12)	58	100 (SAE=113)	41	55	16 (SAE=22)
20	G1	M33×2	—	16SAE (1 5/16-12)	72	110 (SAE=120)	46	70	18 (SAE=22)
25	G1 1/4	M42×2	NPTF 1 1/4	20SAE (1 5/8-12)	87	130 (SAE=140)	55	85	20 (SAE=22)
30	G1 1/2	M48×2	NPTF 1 1/2	24SAE (1 7/8-12)	93	150 (SAE=160)	60	90	22 (SAE=24)