Restrictive Valve and Restrictive Check Valve

Model: MG/MK...1X

- Size 6 to 30
- Maximum working pressure 350 bar
- Maximum working flow 400 L/min

Contents

Features

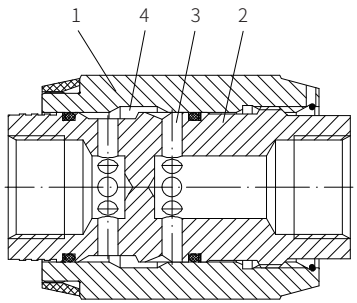
- Suitable for direct in-line mounting
- Performance depends on pressure and viscosity

Function description, sectional drawing

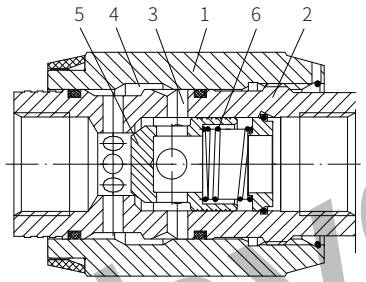
The MG and MK valve is a restrictive valve and restrictive check valve which is related to oil pressure and viscosity.

Model MG (restrictive valve)
This valve throttles in both flow directions. The hydraulic oil flows through side hole (3) to the throttling orifice (4) which is formed by valve body (2) and adjusting sleeve (1). The cross-section of the throttling orifice (4) can be adjusted infinitely by rotating the adjusting sleeve (1).

Model MK (restrictive check valve)
When the fluid flows through the valve in throttling direction, the pressure oil and spring (6) presses the spool (5) onto the valve seat, then the connection is blocked. The hydraulic oil flows through the side hole (3) to the throttling orifice (4) which is formed by valve body (2) and adjusting sleeve (1).
In the opposite direction, the pressure acts on the face of the spool (5) to open the check valve and allow the fluid to flow through the check valve without throttling. At the same time, parts of the hydraulic oil flows through the annular groove to achieve the desired self-cleaning effect.

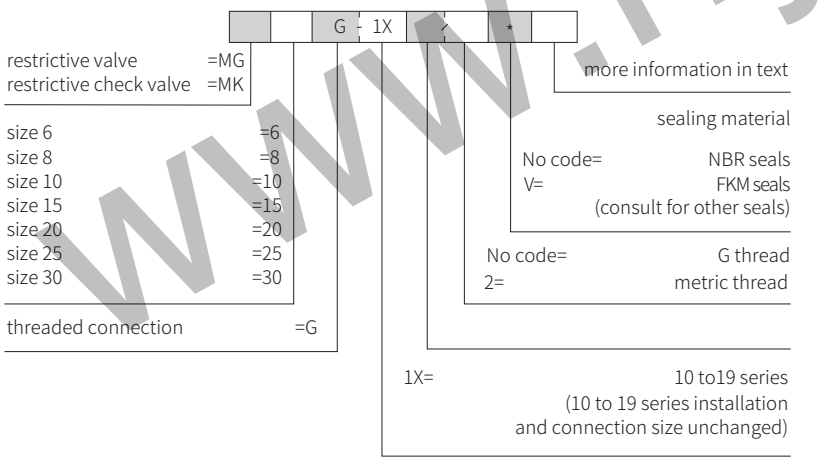


Restrictive valve MG

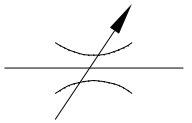


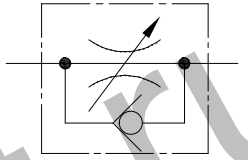
Restrictive check valve MK

Models and specifications



Functional symbols


Model MG


Model MK

Technical parameters

Overview								
Installation position		Optional						
Environment temperature range	°C	-20 to +50						
Weight		6	8	10	15	20	25	30
	kg	0.3	0.4	0.7	1.1	1.9	3.2	4.1
Hydraulic								
Maximum working pressure	bar	315						
Cracking pressure MK model	bar	0.5						
Maximum flow	L/min	400						
Oil fluid		Mineral oil (HL, HLP)[1] in accordance with DIN 51524; Fast living organisms Degraded oil according to VDMA 24568; HETG (Rapeseed oil)[1]; HEPG (Polyethyleneglycol)[2] ; HEES (Synthetic Fats) [2]						
Oil temperature range	°C	-30 to + 80 (NBR seal) , -20 to + 80 (FKM seal)						
Viscosity range	mm^2/s	10 to 800						
Cleanliness of oil		The maximum allowable pollution level of oil is ISO4406 class 20 / 18 / 15						

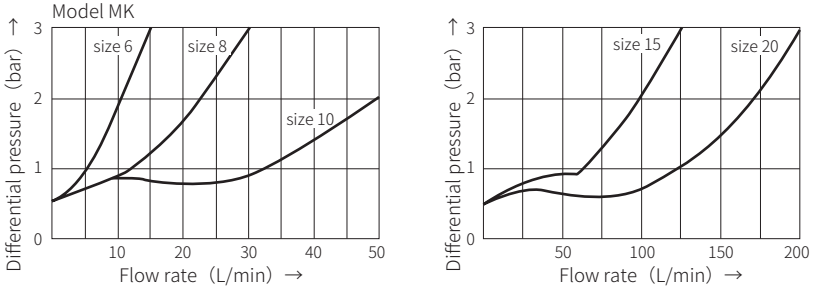
1) The oil must meet the cleanliness degree requested by the components in the hydraulic system. Effective oil filtration can prevent failure and increase the service life of the components.

Characteristic curve

(Measured when using HLP 46, ϑ_{oil} = 40°C ± 5°C)

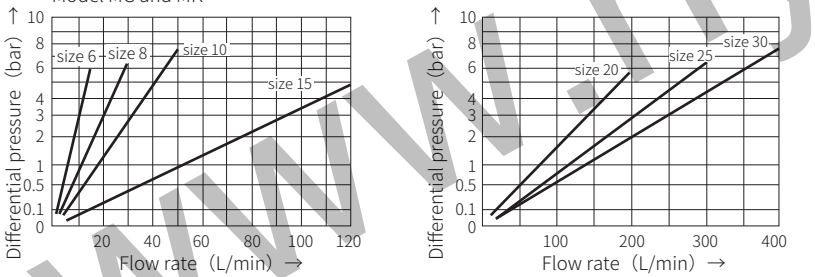
△p-q_V-characteristic curve via the opened check valve with closed throttle

Model MK



△p-q_V-characteristic curve via the opened throttle

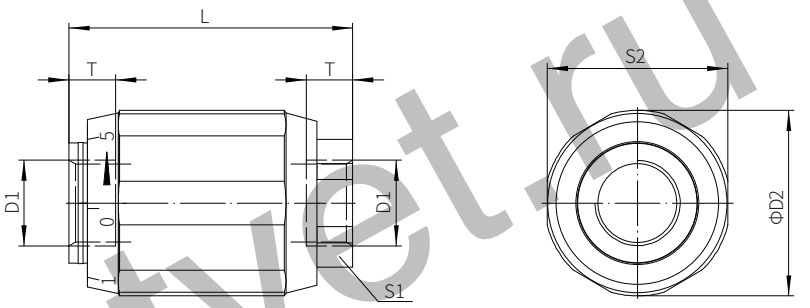
Model MG and MK



Component size

Size unit: mm

Model MK and MG



Size	D1		D2	L1	S1	S2	T1
	G	Metric					
6	G1/4	M14×1.5	34	65	22	32	12
8	G3/8	M18×1.5	38	65	24	36	12
10	G1/2	M22×1.5	48	80	30	46	14
15	G3/4	M27×2	58	100	41	55	16
20	G1	M33×2	72	110	46	70	18
25	G1 1/4	M42×2	87	130	55	85	20
30	G1 1/2	M48×2	93	150	60	90	22