

Throttle valve type MK

NS 6 - 30 | p_{max} 31,5 MPa | Q_{max} 400 dm³/min | WK 496 280



DATA SHEET - OPERATION MANUAL

APPLICATION

Valves type MK... are throttle / check valves in which flow depends on temperature and pressure difference at the throttle point. They are used for setting flow rate of the fluid in one direction and opening a free flow in the opposite direction. The MK... type valves can be used in hydraulic systems where a constant working resistance occurs or change of speed under variable load is of no importance. The valves are suitable for mounting on pipelines in any position.

DESCRIPTION OF OPERATION

Fluid flow is provided in the direction of throttle to the port **A**. Through the side bores **4** in the poppet **3** and the body **2** flows a pressurised fluid to the annular gap **5**. The throttling occurs between the body **2** and the adjustable sleeve **1**. When the liquid flows in the opposite direction, its stream acts on the face of the poppet **3**. The poppet **3** is lifted from its seat and the fluid flows freely through the valve. Simultaneously, part of the fluid getting through the ring slot **5** causes the desired effect of its self-cleaning.

Caution:

When installing the valve in a hydraulic system, hold the valve by its hexagonal body **2**. Do not tighten the valve by means of the sleeve **1**.
Do not adjust under pressure!

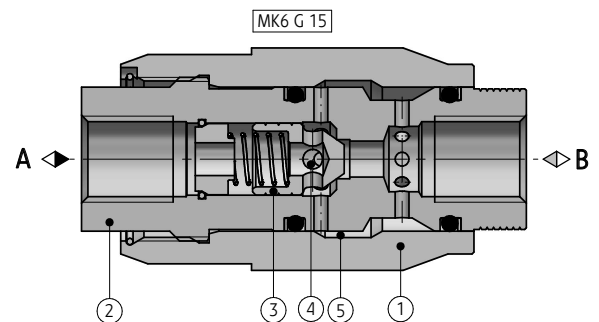
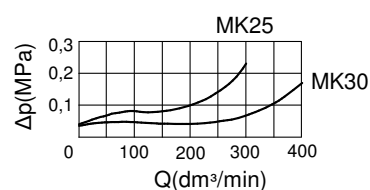
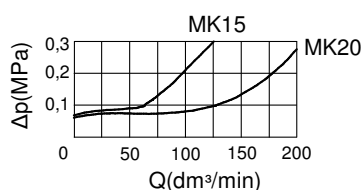
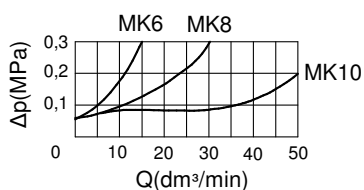
TECHNICAL PARAMETERS

hydraulic fluid	mineral oil
required filtration	up to 16 µm
recommended filtration	up to 10 µm
nominal viscosity of the fluid	37 mm ² /s at temp 55 °C
viscosity range	2,8 ÷ 380 mm ² /s
fluid temperature range (in tank)	max. -20 ÷ 70 °C; recommend 40÷55 °C
ambient temperature range	-20 ÷ 70 °C
maximum operating pressure	31,5 MPa
opening pressure	0,05 MPa
weight	0,30 ÷ 4,1 kg (details on page 2)

assembly and operation requirements at www.operating-conditions.ponar.pl

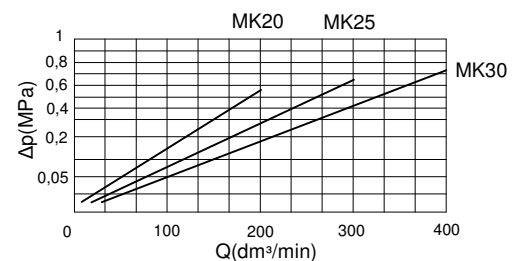
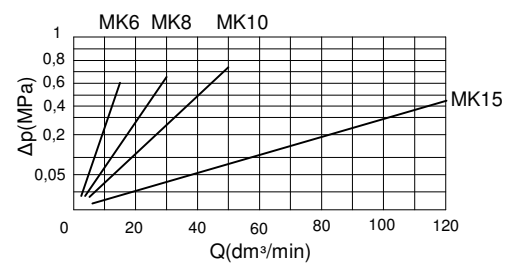
PERFORMANCE CURVES

measured $\nu = 41 \text{ mm}^2/\text{s}$ and $t = 50 \text{ }^\circ\text{C}$
 $\Delta p - Q$ curve - via open check valve with closed throttle.

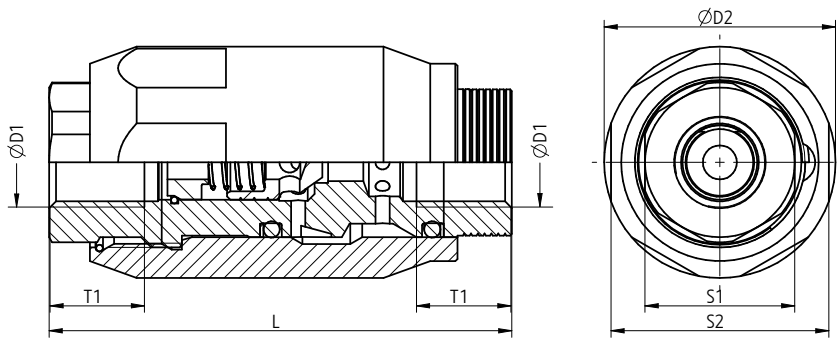


PERFORMANCE CURVES

measured $\nu = 41 \text{ mm}^2/\text{s}$ and $t = 50 \text{ }^\circ\text{C}$
 $\Delta p - Q$ curve - via closed check valve with open throttle.

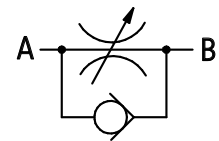


OVERALL DIMENSIONS

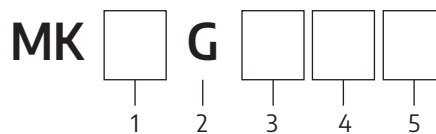


Size	ØD1	ØD2	L	S1	S2	T1	Weight (kg)
MK6...	G $\frac{1}{4}$	34	68	22	32	14	0,3
MK8...	G $\frac{3}{8}$	38	66	24	36	12,5	0,4
MK10...	G $\frac{1}{2}$	48	80	30	46	14	0,7
MK15...	G $\frac{3}{4}$	58	97	36	55	16	1,1
MK20...	G1	72	113	46	70	18	1,9
MK25...	G1 $\frac{1}{4}$	87	129	55	85	20	3,2
MK30...	G1 $\frac{1}{2}$	93	145	60	90	22	4,1

HYDRAULIC DIAGRAM



HOW TO ORDER



1 Nominal size (NS)

NS6 =	6
NS8 =	8
NS10 =	10
NS15 =	15
NS20 =	20
NS25 =	25
NS30 =	30

2 Mounting

Direct in-line mounting = G

3 Series number

(10-19) - installation and connection dimensions remain unchanged = 1X
series 15 = 15

4 Sealing

NBR (for fluids on mineral oil base) = \emptyset
FKM (for fluids on phosphate ester base) = V

5 Further requirements = *

(to be agreed with the manufacturer)

\emptyset indicates that the box should be left blank

Coding example: MK 6 G 15

CONTACT

PONAR Wadowice S.A.
ul. Wojska Polskiego 29
34-100 Wadowice

phone +48 33 488 21 00
www.ponar-wadowice.pl