

# Throttle valve type MK

NS 6 - 30 |  $p_{max}$  35 MPa |  $Q_{max}$  400 dm<sup>3</sup>/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!**

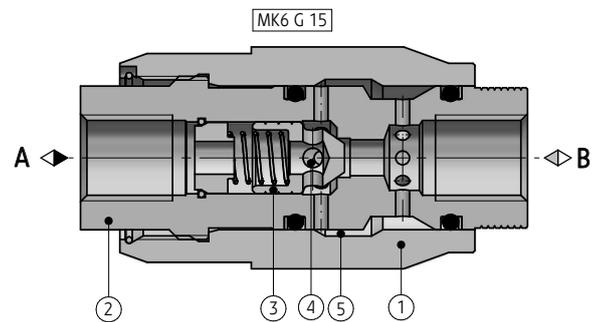
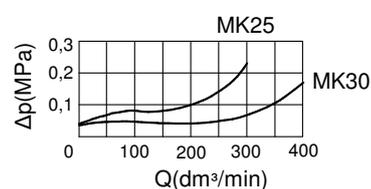
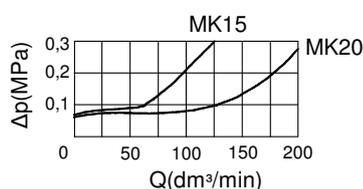
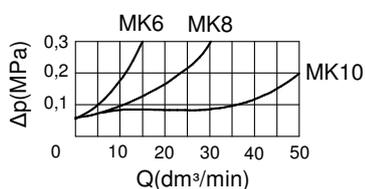
### TECHNICAL PARAMETERS

hydraulic fluid	mineral oil
required filtration	up to 16 µm
recommended filtration	up to 10 µm
nominal viscosity of the fluid	37 mm <sup>2</sup> /s at temp 55 °C
viscosity range	2,8 ÷ 380 mm <sup>2</sup> /s
fluid temperature range (in tank)	max. -20 ÷ 70 °C; recommend 40÷55 °C
ambient temperature range	-20 ÷ 70 °C
maximum operating pressure	35 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](http://www.operating-conditions.ponar.pl)

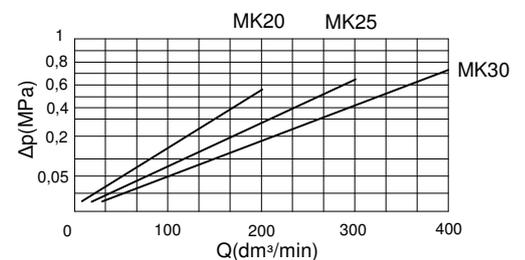
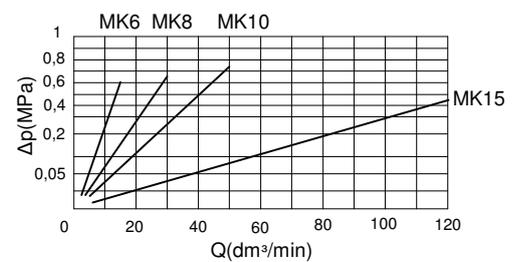
### PERFORMANCE CURVES

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

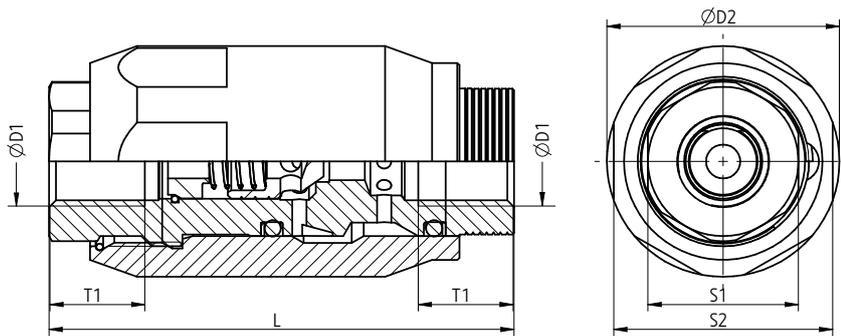


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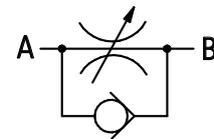


## OVERALL DIMENSIONS

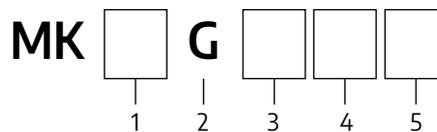


Size	ØD1	ØD2	L	S1	S2	T1	Weight (kg)
MK6...	G $\frac{1}{4}$	34	68	22	32	14	0,3
MK8...	G $\frac{3}{8}$	38	66	24	36	12,5	0,4
MK10...	G $\frac{1}{2}$	48	80	30	46	14	0,7
MK15...	G $\frac{3}{4}$	58	97	36	55	16	1,1
MK20...	G1	72	113	46	70	18	1,9
MK25...	G1 $\frac{1}{4}$	87	129	55	85	20	3,2
MK30...	G1 $\frac{1}{2}$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

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