

# coaxial valve

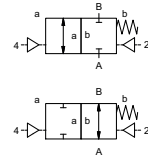
## type VMK 10

### 5-VMK 10

valve type with pilot valve



**2/2 way valve** externally controlled  
**pressure range** PN 0-100 bar  
**orifice** DN 10 mm  
**connection** thread  
**function** valve normally closed symbol **NC**  
 valve normally open symbol **NO**



Above stated body materials refer to the valve port connections that get in contact with the media only!

**design** pressure balanced, with spring return  
**body materials** ① brass ②  
 ③ brass, nickel plated ⑤  
 ④ ⑥ stainless steel  
 ⑦ aluminium  
**valve seat seal materials** synthetic resin on metal  
 NBR PTFE, FPM, CR, EPDM

**details needed for main valve**

- orifice
- port
- function NC/NO
- operating pressure
- flow rate
- media
- media temperature
- ambient temperature
- type of actuation

**details needed for pneumatic actuation**

- nominal voltage
- type of protection
- actuation pressure range min/max
- low wattage coil, actuation pressure range 4-7 bar
- pilot valve type

**details needed for hydraulic actuation**

- actuation pressure range min/max
- hydraulic control valve function

The valves' technical design is based on media and application requirements. This can lead to deviations from the general specifications shown on the data sheet with regards to the design, sealing materials and characteristics.

If order or application specifications are incomplete or imprecise there exists a risk of an incorrect technical design of the valve for the required application. As a consequence, the physical and / or chemical properties of the materials or seals used, may not be suitable for the intended application.

**general specifications**

ports	VMK	threads G 1/4 - G 3/4	special threads
function		NC	NO
pressure range	bar	0-16 / 0-40 / 0-64 / 0-100	
Kv value	m³/h	2,5 (> 64 bar = 2,1)	
vacuum	leak rate		≤ 10 <sup>-6</sup> mbar·l·s <sup>-1</sup>
pressure-vacuum	P <sub>1</sub> ⇔ P <sub>2</sub>		pressure side max. 100 bar vacuum side leak rate upon request available (max. 16 bar)
back pressure	P <sub>2</sub> > P <sub>1</sub>		
media		gaseous - liquid - highly viscous - gelatinous - pasty - contaminated	
abrasive media			upon request
damping	opening		
	closing	by throttles on pilot valve	
flow direction	A ⇔ B	as marked	bi-directional upon request
switching cycles	1/min	680	
switching time	ms	opening 30-3000 closing 50-3000	
media temperature	°C	direct mounted pilot valve 60	remote mounted pilot valve outside temperature range of media max. 160 °C
ambient temperature	°C	direct mounted pilot valve 50	
flush ports			
leak ports			
limit switches			inductive
manual override		via pilot valve	
approvals			LR/GL/WAZ
mounting			mounting brackets
weight	kg	VMK 1,7	
additional equipment			upon request

**electrical specifications**

nominal voltage	U <sub>n</sub>	DC 24 V	special voltage upon request
	U <sub>n</sub>	AC 230 V 50 Hz	special voltage upon request
power consumption	DC	4,8 W	2,5 W
	AC	pick up 11,0 VA holding 8,5 VA	
protection	IP65 (P54)	acc. DIN 40050	
energized duty rating	ED	100%	
connection		plug acc. DIN EN 175301-803 form B, 4 positions x90° / wire diameter 6-8 mm	
optional	M12x1	connector acc. DESINA	connector acc. VDMA
additional equipment		illuminated plug with varistor	
max. temperature	media	60°C	
	ambient	50°C	
explosion proof	E Ex e II T5	nominal voltage U <sub>n</sub>	DC 24 V 3,25 W
		power consumption	AC 230 V 50 Hz 2,90 W

**pneumatic specifications**

actuation pressure range	bar	4-10	
air consumption	cm³/stroke	7	
cycle speed		main valve speed variable by throttleson pilot valve	
control		preferably 5/2 way pilot valve	
pilot valve interface		co-ax	NAMUR acc. VDI / VDE 3845
actuator ports	2/4	G 1/8	

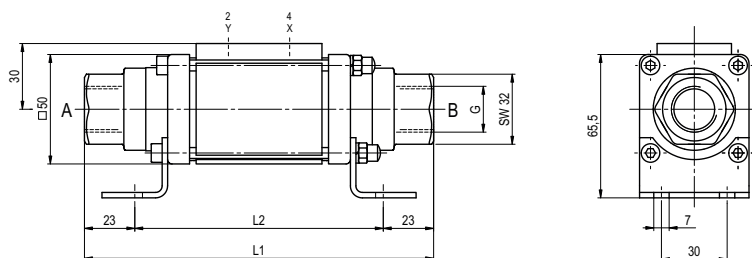
**hydraulic specifications**

actuation pressure range	bar	4-10	
control		preferably 4/2 way control valve	
actuator ports	X/Y	G 1/8	
by media			

■ specifications not highlighted are standard  
 ■ specifications highlighted in grey are optional

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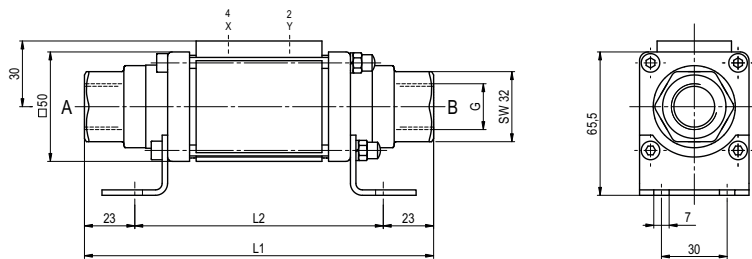
function: **NC**  
closed when not energized



constructive length	L1	L2 (0-64 bar)	L2 (> 64 bar)
standard	159,5	113,5	120,5
with inductive limit switches	179,5	133,5	140,5

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function: **NO**  
open when not energized



### pneumatic specifications

