

5-VMK 20

5-VFK 20

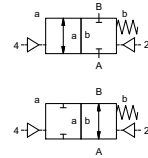
valve type with pilot valve

# coaxial valve

## type VMK 20 VFK 20



**2/2 way valve** externally controlled  
**pressure range** PN 0-100 bar  
**orifice** DN 20 mm  
**connection** thread/flange  
**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 steel galvanized  
 ③ brass, nickel plated ⑤ without non-ferr. Metals  
 ④ steel, nickel plated 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.

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

**general specifications**

<b>ports</b>	VMK threads G 3/4 - G 1 1/4	VFK flanges PN 16 / 40 / 100
<b>function</b>	NC	NO
<b>pressure range</b>	bar	0-16 / 0-40 / 0-64 / 0-100
<b>Kv value</b>	m <sup>3</sup> /h	8,8
<b>leak rate</b>		< 10 <sup>-6</sup> mbar·l·s <sup>-1</sup>
<b>pressure-vacuum</b>	P <sub>1</sub> ⇔ P <sub>2</sub>	pressure side max. 100 bar vacuum side leak rate upon request
<b>back pressure</b>	P <sub>2</sub> > P <sub>1</sub>	available (max. 16 bar)
<b>media</b>		gaseous - liquid - highly viscous - gelatinous - pasty - contaminated
<b>abrasive media</b>		available
<b>damping</b>	opening	by throttles on pilot valve
<b>flow direction</b>	A ⇔ B	as marked
<b>switching cycles</b>	1/min	200
<b>switching time</b>	ms	opening 50-3000 closing 50-3000
<b>media temperature</b>	°C	direct mounted pilot valve 60
<b>ambient temperature</b>	°C	direct mounted pilot valve 50
<b>flush ports</b>		available
<b>leak ports</b>		available
<b>limit switches</b>		inductive / mechanical upon request
<b>manual override</b>		via pilot valve
<b>approvals</b>		LR/GL/WAZ
<b>mounting</b>		mounting brackets
<b>weight</b>	kg	VMK 4,7 VFK 6,7
<b>additional equipment</b>		upon request

**options**

**electrical specifications**

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

**options**

**pneumatic specifications**

<b>actuation pressure range</b>	bar	4-10
<b>air consumption</b>	cm <sup>3</sup> /stroke	11
<b>cycle speed</b>		main valve speed variable by throttles on pilot valve
<b>control</b>		preferably 5/2 way pilot valve
<b>pilot valve interface</b>		co-ax / Namur
<b>actuator ports</b>	2/4	G 1/8 ISO 1 G 1/4

**options**

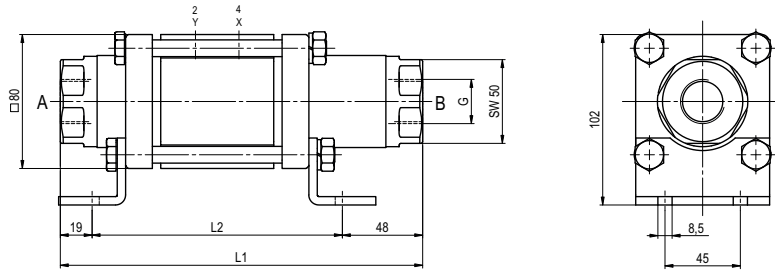
**hydraulic specifications**

<b>actuation pressure range</b>	bar	15-30 / 30-60
<b>control</b>		preferably 4/2 way control valve
<b>actuator ports</b>	X/Y	G 1/4 NPT 1/4
<b>by media</b>		

**options**

# type VMK 20

function: **NC**  
closed when not energized

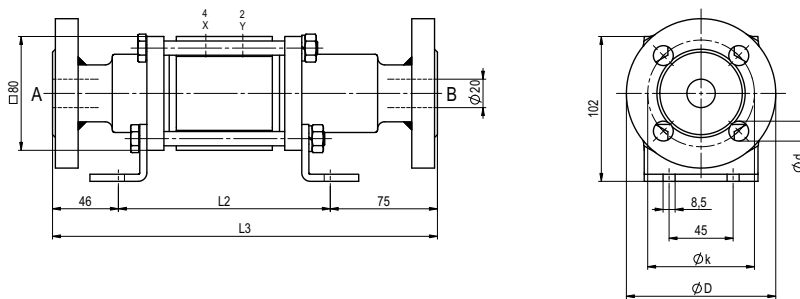


constructive length	L1	L2	L3
standard	216	149	270
with inductive limit switches	235	168	289
with force-feed lubrication nipple	254	187	308
with mechanical limit switches	237	170	291

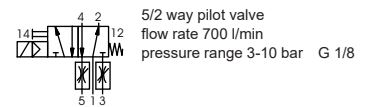
flanges PN	DIN	ØD	Øk	Ød
16	EN 1092-1	105	75	14
40	EN 1092-1	105	75	14
100	EN 1092-1	130	90	18

# type VFK 20

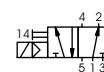
function: **NO**  
open when not energized



### pneumatic specifications



5/2 way pilot valve  
flow rate 700 l/min  
pressure range 3-10 bar G 1/8



5/2 way pilot valve ISO 1  
flow rate 700 l/min  
pressure range 3-10 bar G 1/4