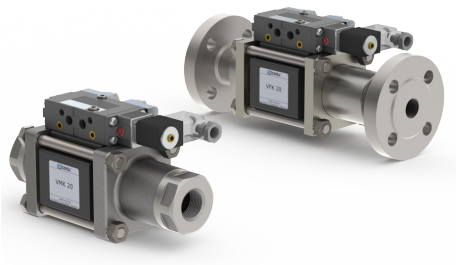
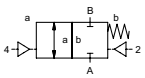
coaxial valve

type VMK 20 / VFK 20

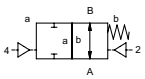
5-VMK 20
5-VFK 20
valve type with pilot valve



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**



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
valve seat	synthetic resin on metal	
seal materials	NBR	PTFE, FPM, CR, EPDM

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

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

general specifications			options
ports	VMK	threads G 3/4 - G 1 1/4	special threads
	VFK	flanges PN 16 / 40 / 100	special flanges
function		NC	NO
pressure range	bar	0-16 / 0-40 / 0-64 / 0-100	> 100 bar upon request
Kv value	m^3/h	8,8	
vacuum	leak rate		< 10^{-6} mbar•l•s^{-1}
pressure-vacuum	$P_1 \Leftrightarrow P_2$		pressure side max. 100 bar vacuum side leak rate upon request
back pressure	$P_2 > P_1$		available (max. 16 bar)
media		gaseous - liquid - highly viscous - gelatinous - pasty - contaminated	
abrasive media			version available
damping	opening		
	closing	by throttles on pilot valve	
flow direction	A ⇨ B	as marked	bi-directional upon request
switching cycles	1/min	200	
switching time	ms	opening 50-3000 closing 50-3000	
media temperature	°C	direct mounted pilot valve 60	remote mounted pilot valve outside tempe-
ambient temperature	°C	direct mounted pilot valve 50	ratur range of media max. 160 °C
flush ports			available
leak ports			available
limit switches			inductive / mechanical upon request
manual override		via pilot valve	
approvals			LR/GL/WAZ
mounting			mounting brackets
weight	kg	VMK 4,7 VFK 6,7	
additional equipment			upon request

electrical specifications			options
nominal voltage	U_n	DC 24 V	special voltage upon request
	U_n	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		iluminated plug with varistor	
max. temperature	media	60°C	
	ambient	50°C	
explosion proof	E Ex e II T5	nominal voltage U_n	DC 24 V 3,25 W
		power consumption	AC 230 V 50 Hz 2,90 W

⚠ 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.

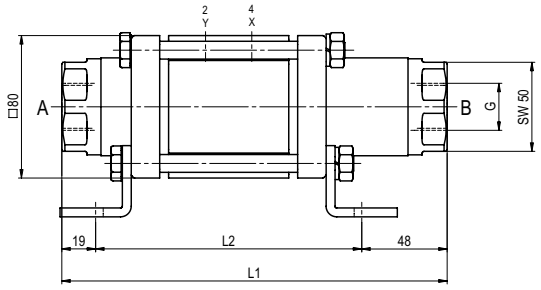
pneumatic specifications			options
actuation pressure range	bar	4-10	
air consumption	cm^3/stroke	11	
cycle speed		main valve speed variable by throttleson pilot valve	
control		preferably 5/2 way pilot valve	
pilot valve interface		co-ax / Namur	ISO 1
actuator ports	2/4	G 1/8	G 1/4

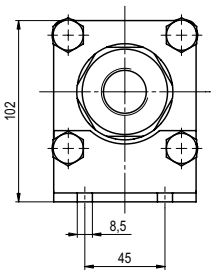
hydraulic specifications			options
actuation pressure range	bar	10-30 / 30-60	
control		preferably 4/2 way control valve	
actuator ports	X/Y	G 1/4	NPT 1/4
by media			

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

type **VMK 20**

function: **NC**
closed when not energized



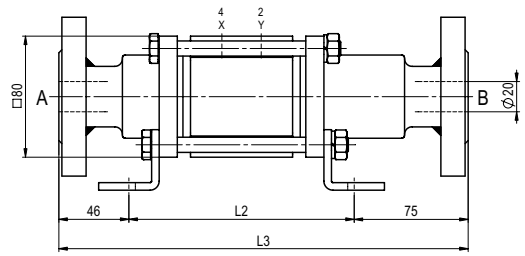


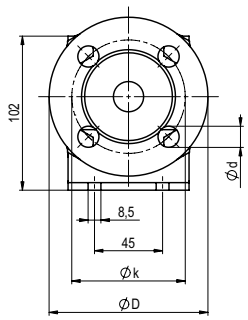
constructive length	L_1	L_2	L_3
standard	216	149	270
with 1/2 inductive limit switches	235	168	289
with force-feed lubrication nipple	254	187	308
with mechanical limit switches	237	170	291

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

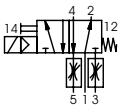
type **VFK 20**

function: **NO**
open when not energized

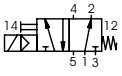




pneumatic actuation



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