coax® data sheet - coaxial valve

type VMK-H 50
VFK-H 50

09/2022

⚠ 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
- pilot valve type

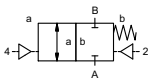
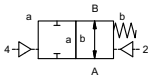
details needed for hydraulic actuation
- actuation pressure range min/max
- hydraulic control valve function

⚠ 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. To avoid hydraulic shocks in pipelines, the flow velocities must be taken into account when designing valves for liquids.

- specifications not highlighted are standard

specifications highlighted in grey are optional

2/2-way valve	**externally controlled**	
pressure range	PN 0-200 bar	
orifice	DN 50 mm	
connection	thread/flange	
function	valve normally closed symbol **NC**	
	valve normally open symbol **NO**	
operating principle	pressure balanced, with spring return	
body material	①	② steel galvanized
	③	⑤ without non-ferr. Metals
	④ steel, nickel plated	⑥ stainless steel
valve seat	synthetic materials on metal	
seal materials	NBR	PTFE, FPM, CR, EPDM

	general specifications		**options**
ports	VMK-H	threads G 2	special threads
	VFK-H	flanges PN 160 / 250	special flanges
function		NC	NO
pressure range	bar	0-200	
Kv value	m^3/h	43.0	
vacuum	leak rate		< 10^{-4} mbar•l•s^{-1}
pressure-vacuum	$P_1 \Leftrightarrow P_2$		
back pressure	$P_2 > P_1$		available (max. 16 bar)
media		gaseous - liquid - highly viscous	
abrasive media			available
damping	opening		
	closing	by throttles on pilot valve	
flow direction	A ⇨ B	as marked	bi-directional upon request
switching cycles	1/min	100	
switching time	ms	opening 100-3000	
		closing 100-3000	
media temperature	°C	direct mounted pilot valve 60	remote mounted pilot valve outside
ambient temperature	°C	direct mounted pilot valve 50	temperatur range of media max. 160 °C
flush ports			available
leak ports			available
limit switches			inductive
manual override		via pilot valve	
approvals			LR/DNV/WAZ
mounting			mounting brackets
weight	kg	VMK-H 12.3 VFK-H 18.7	
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 (actuation pressure range 4-7 bar)
	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, 2 positions x180° / 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_n	DC 24 V 3.25 W
		power consumption	AC 230 V 50 Hz 2.90 W

	pneumatic specifications		**options**
actuation pressure range	bar	4-8	
air consumption	cm^3/stroke	65	
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	15-30 / 30-60	
control		preferably 4/2 way control valve	
actuator ports	X/Y	G 1/4	NPT 1/4
by media			

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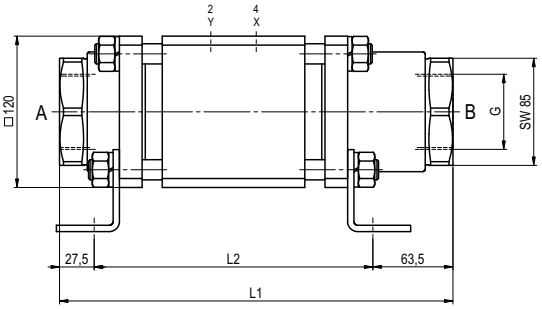
type VMK-H 50
VFK-H 50

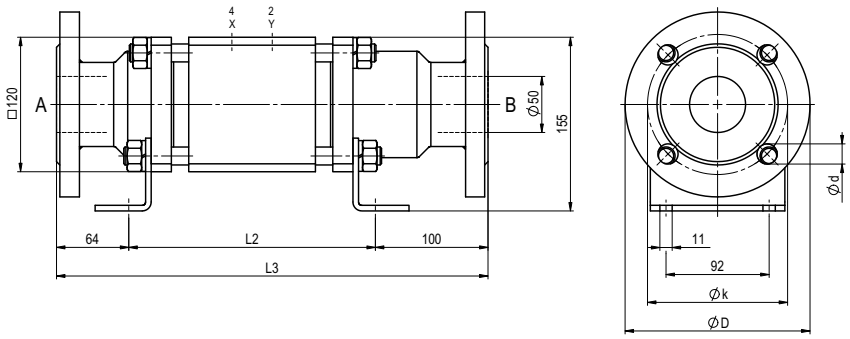
function: **NC**
closed when not energized



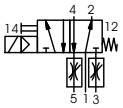
constructive length	L1	L2	L3
standard	312	221	385
with inductive limit switches	312	221	385
with force-feed lubrication nipple	312	221	385
with mechanical limit switches	-	-	-

flanges PN	DIN	ØD	Øk	Ød
160	EN 1092-1	195	145	26
250	EN 1092-1	200	150	26

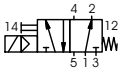
function: **NO**
open when not energized



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