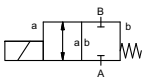
coax® data sheet - coaxial valve

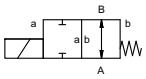
type MK 50
FK 50

03/2022

2/2-way valve	**direct acting**
pressure range	PN 0-16 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 brass ② steel galvanized ③ brass, nickel plated 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

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

details needed

- orifice
- port
- function NC/NO
- operating pressure
- flow rate
- media
- media temperature
- ambient temperature
- nominal voltage

	general specifications		options
ports	MK	threads G 2	special threads
	FK	flanges PN 16	special flanges
function		NC	NO
pressure range	bar	0-16	
Kv value	m^3/h	38,0	
vacuum	leak rate		< 10^{-6} mbar•l•s^{-1}
pressure-vacuum	$P_1 \Leftrightarrow P_2$		upon request
back pressure	$P_2 > P_1$		available (max. 10 bar)
media		gaseous - liquid - highly viscous - gelatinous - contaminated	
abrasive media			upon request
damping	opening		
	closing		available
flow direction	A ⇨ B	as marked	bi-directional (max. 10 bar)
switching cycles	1/min	40	
switching time	ms	opening 400	
		closing 400	
media temperature	°C	DC: -20 to +80	-20 to +120
		AC: -20 to +80	-20 to +120
ambient temperature	°C	DC: -20 to +80	
		AC: -20 to +80	
limit switches			inductive
manual override			available
approvals			LR/DNV/WAZ
mounting			mounting brackets
weight	kg	MK 25,5 FK 31,0	
additional equipment			upon request

⚠ 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.

	electrical specifications		options
nominal voltage	U_n	DC 24 V +5%/-10%	special voltage upon request
	U_n	AC 230 V +5%/-10% 40-60 Hz	special voltage upon request
actuation	DC	direct-current magnet	
	AC	direct-current magnet with integrated rectifier	above 100 °C with separate rectifier
insulating rating	H	180°C	
protection	IP65		
energized duty rating	ED	100%	
connection		plug acc. DIN EN 175301-803 form A, 4 positions x90° / wire diameter 6-8 mm	terminal box M16x1,5
optional			
additional equipment		illuminated plug with varistor	
current consumption	N-coil	DC 24 V 2,55 A	
		AC 230 V 40-60 Hz 0,29 A	
	H-coil		DC 24 V 3,29 A
			AC 230 V 40-60 Hz 0,43 A
explosion proof			terminal box M16x1,5
			⟨Ex⟩ II 3G Ex nA IIC T3 Ta -20...+80°C Gc
			⟨Ex⟩ II 3D Ex tc IIIC T195°C Ta -20...+80°C Dc
			⟨Ex⟩ II 3G Ex h IIC T3 Gc
			⟨Ex⟩ II 3D Ex h IIIC T195°C Dc
limit switches		inductive (I)	normally open-PNP
		inductive (B)	normally open-PNP

⚠ 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

müller co-ax gmbh • Friedrich-Müller-Str. 1 • 74670 Forchtenberg • Germany • fon +49(0)7947/828-0 • fax +49(0)7947/828-11 • Email info@co-ax.com

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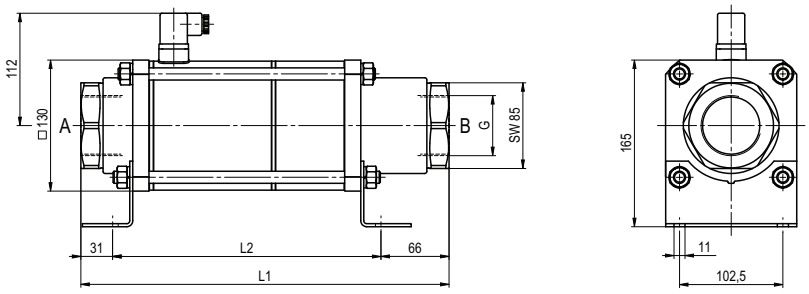
FK 50

function: **NC**
closed when not energized



constructive length	L1	L2	L3
standard	365	268	438
with inductive limit switches	365	268	438
with manual override / inductive limit switches	365	268	438

flanges PN	DIN	ØD	Øk	Ød
16	EN 1092-1	165	125	18

function: **NO**
open when not energized