coax® data sheet - coaxial valve

type MK 50 DR
FK 50 DR

03/2022

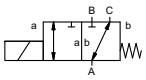
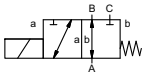
⚠ Above stated body materials refer to the valve port connections that get in contact with the media only!

details needed

- orifice
- port
- function NC/NO
- operating pressure
- inlet pressure at A, B or C
- flow rate
- media
- media temperature
- ambient temperature
- nominal voltage

⚠ 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.

3/2 way valve	**direct acting**	
pressure range	PN 0-16 bar	
orifice	DN 50 mm	
connection	thread/flange	
function	valve normally closed (A ►B) symbol **NC**	
	valve normally open (A ►B) symbol **NO**	
operating principle	pressure balanced, with spring return, intersecting switch-over	
body material	① ③ ④ steel, nickel plated	② steel galvanized ⑤ without non-ferr. Metals ⑥ stainless steel
valve seat	synthetic materials on metal	
seal materials	NBR	PTFE, FPM, CR, EPDM

	general specifications		**options**
ports	MK	threads G 2	special threads
	FK	flanges PN 16	special flanges
function		NC	NO
pressure range	bar	0-16	
		A ⇨ B max. 16 / B ⇨ A max. 10 / A ⇨ C max. 16 / C ⇨ A max. 16	
Kv value	m^3/h	28,2	
vacuum	leak rate		< 10^{-6} mbar•l•s^{-1}
pressure-vacuum	$P_1 \Leftrightarrow P_2$		upon request
back pressure	$P_2 > P_1$	see pressure range	
media		gaseous - liquid - highly viscous - gelatinous - contaminated	
abrasive media			upon request
damping	opening closing		
flow direction		see pressure range	
switching cycles	1/min	40	
switching time	ms	opening 400 closing 400	
media temperature	°C	DC: -20 to +80 AC: -20 to +80	-20 to +120 -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 31,5 FK 38,5	
additional equipment			upon request

	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 Ⓔx II 3G Ex nA IIC T3 Ta -20...+80°C Gc Ⓔx II 3D Ex tc IIIC T195°C Ta -20...+80°C Dc Ⓔx II 3G Ex h IIC T3 Gc Ⓔx II 3D Ex h IIIC T195°C Dc
limit switches		inductive (I) inductive (B)	normally open-PNP normally open-PNP

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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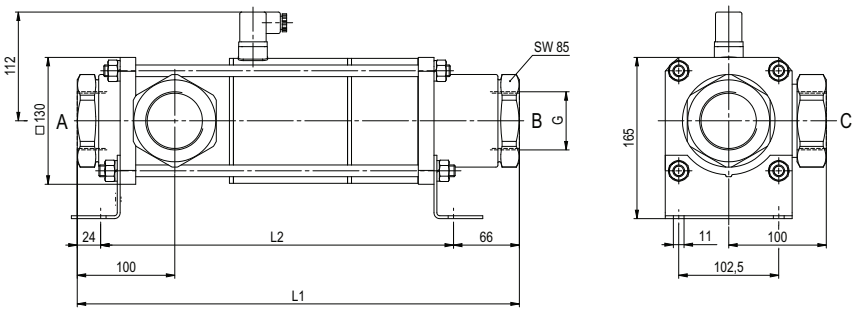
type MK 50 DR
FK 50 DR

function: **NC**
closed when not energized (A ▶B)



constructive length	L1	L2	L3
standard	453	363	553
with inductive limit switches	453	363	553
with manual override / inductive limit switches	453	363	553

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

function: **NO**
open when not energized (A ▶B)