coax® data sheet - coaxial valve

type MK 40
FK 40

03/2022

2/2-way valve	**direct acting**
pressure range	PN 0-63 bar (NO: 0-40 bar)
orifice	DN 40 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 1 1/2 - G 2	special threads
	FK	flanges PN 16 / 40 / 100	special flanges
function		NC	NO
pressure range	bar	0-16 / 0-40 / 0-63	0-16 / 0-40
Kv value	m^3/h	21,8	
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. 16 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. 16 bar)
switching cycles	1/min	90	
switching time	ms	opening 520 closing 150	
media temperature	°C	DC: -20 to +100	-40 to +160
		AC: -20 to +100	-40 to +160
ambient temperature	°C	DC: -20 to +80 AC: -20 to +80	
limit switches			inductive / mechanical
manual override			available
approvals			LR/DNV/WAZ
mounting			mounting brackets
weight	kg	MK 14,0 FK 18,0	
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 2,07 A AC 230 V 40-60 Hz 0,28 A	
	H-coil		DC 24 V 3,24 A AC 230 V 40-60 Hz 0,44 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)	normally open-PNP
		inductive (B)	normally open-PNP
		mechanical	single pole double throw-SPDT

⚠ 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

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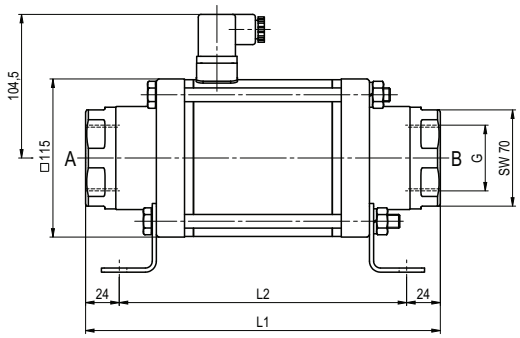
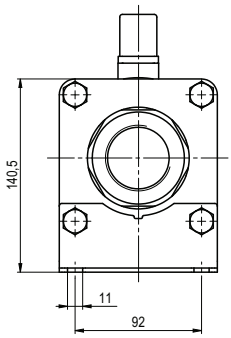
type MK 40
FK 40

function: **NC**
closed when not energized





constructive length	L1	L2	L3
standard	258	210	324
with inductive limit switches	299	251	365
with manual override / inductive limit switches	299	251	365
with mechanical limit switches	299	251	365

flanges PN	DIN	ØD	Øk	Ød
16	EN 1092-1	150	110	18
40	EN 1092-1	150	110	18
100	EN 1092-1	170	125	22

function: **NO**
open when not energized