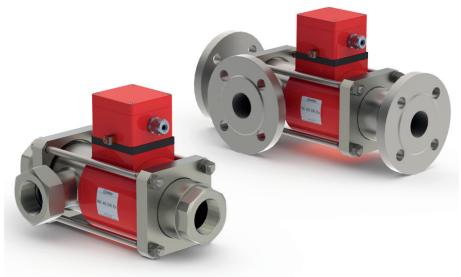
coax® data sheet - coaxial valve

type MK 40 DR Ex
FK 40 DR Ex

12/2024



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

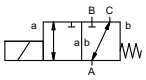
details needed

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

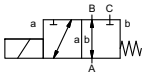
⚠ The valves' technical design is based on media and application requirements. This can lead to deviations from the general specifications shown on the data sheet with regards to the design, sealing materials and characteristics.

⚠ 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 40 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 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	MK	threads G 1 1/2 - 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. 16 / A ⇨ C max. 16 / C ⇨ A max. 16	
Kv value	m^3/h	18,4 [A ⇨ B] 11,5 [A ⇨ C]	
vacuum	leak rate		< 10^{-6} mbar•l•s^{-1}
pressure-vacuum	P_1⇔ 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	90	
switching time	ms	opening 520 closing 150	
media temperature	°C	DC: -20 to +40	-40 to +40
		AC: -20 to +40	-40 to +40
ambient temperature	°C	DC: -20 to +40	-40 to +40
		AC: -20 to +40	-40 to +40
limit switches			inductive
manual override			available
approvals			LR/DNV/WAZ
mounting			mounting brackets
weight	kg	MK 18,5 FK 23,0	
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 separate rectifier outside of the explosion-proof area	
insulating rating	H	180°C	
protection	IP65		
energized duty rating	ED	100%	
connection	M16x1,5	terminal box	
optional			
additional equipment			
current draw	U_n	V-DC 24 200	20 48 98 110 210 220 230
	I_n	A 2,05 0,29	2,70 1,07 0,54 0,48 0,25 0,25 0,21
explosion proof		Ⓔx II 2G Ex mb e II T4	
		Ⓔx II 2D Ex tD A21 IP65 T130 °C	
		Ⓔx II 2G Ex h IIC T4 Gb	
		Ⓔx II 2D Ex h IIIC T130°C Db	
limit switches		inductive NAMUR	circuit amplifier

specifications not highlighted are standard
specifications highlighted in grey are optional

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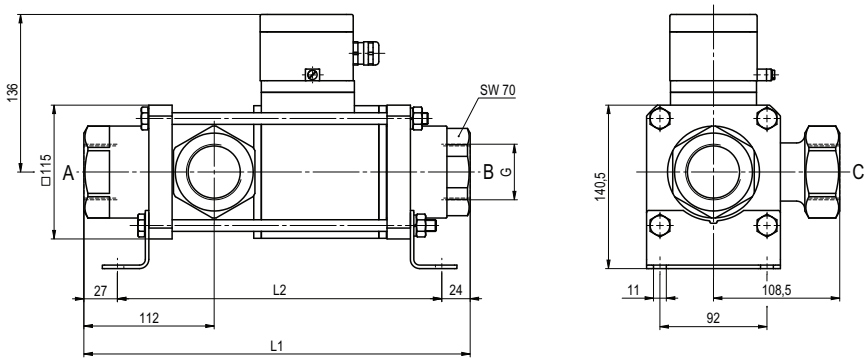
type MK 40 DR Ex
FK 40 DR Ex

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



constructive length	L1	L2	L3
standard	332	281	394
with inductive limit switches	373	322	435
with manual override / inductive limit switches	373	322	435

flanges PN	DIN	ØD	Øk	Ød
16	EN 1092-1	150	110	18

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