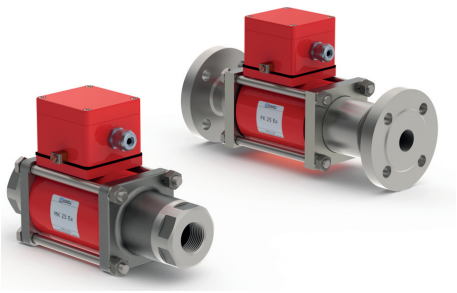
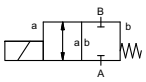
coax® data sheet - coaxial valve

type MK 25 Ex
FK 25 Ex

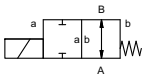
07/2022



2/2-way valve	**direct acting**
pressure range	PN 0-100 bar
orifice	DN 25 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 - G 1 1/2	special threads
	FK	flanges PN 16 / 40 / 100	special flanges
function		NC	NO
pressure range	bar	0-16 / 0-40 / 0-63 / 0-100	> 100 bar upon request
Kv value	m^3/h	13.0	
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. 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	130	
switching time	ms	opening 130	
		closing 130	
media temperature	°C	DC: -20 to +40	-40 to +70
		AC: -20 to +40	-40 to +70
ambient temperature	°C	DC: -20 to +40	-40 to +70
		AC: -20 to +40	-40 to +70
limit switches			inductive
manual override			available
approvals			LR/DNV/WAZ
mounting			mounting brackets
weight	kg	MK 8.0 FK 10.5	
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 separate rectifier outside of the explosion-proof area	sand sealed rectifier to +40 °C max.
insulating rating	H	180°C	
protection	IP65		
energized duty rating	ED	100%	
connection	M16x1,5	terminal box	
optional			
additional equipment			
current consumption	U_n	V-DC 24 200	48 98 110 220
	I_n	A 1.42 0.17	0.73 0.37 0.35 0.16
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

⚠ 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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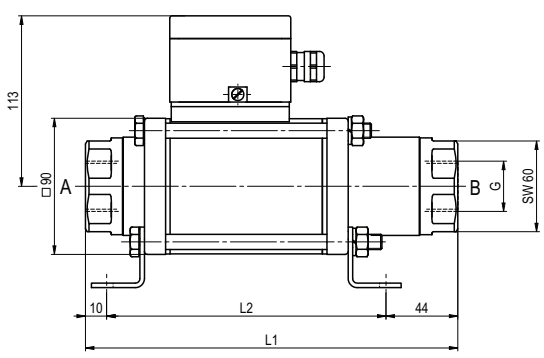
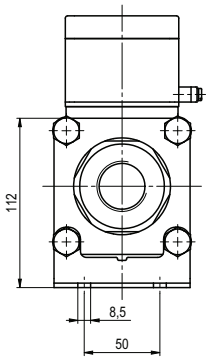
FK 25 Ex

function: **NC**
closed when not energized

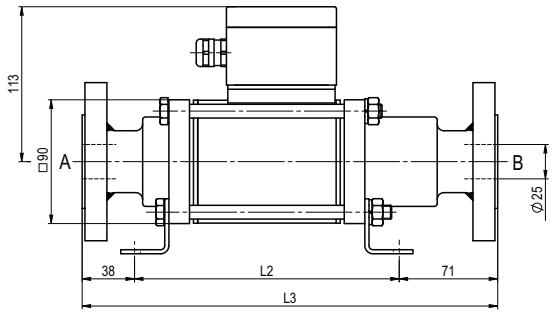


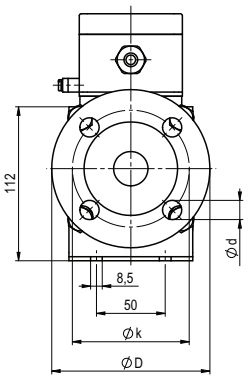


constructive length	L1	L2	L3
standard	246	192	302
with inductive limit switches	299	245	355
with manual override / inductive limit switches	299	245	355

flanges PN	DIN	ØD	Øk	Ød
16	EN 1092-1	115	85	14
40	EN 1092-1	115	85	14
100	EN 1092-1	140	100	18

function: **NO**
open when not energized





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