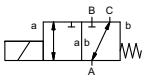
coax® data sheet - coaxial valve

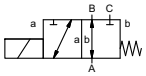
type FK 80 DR

03/2022

3/2 way valve	**direct acting**
pressure range	PN 0-16 bar
orifice	DN 80 mm
connection	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	⓪ aluminium ② steel galvanized ③ ⑤ ④ steel, nickel plated ⑥ stainless steel
valve seat	synthetic materials on metal
seal materials	NBR PTFE, FPM, 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
- inlet pressure at A, B or C
- flow rate
- media
- media temperature
- ambient temperature
- nominal voltage

	general specifications	options
ports	FK flanges PN 16	special flanges
function	NC	NO
pressure range	bar 0-16 A ⇨ B max. 16 / B ⇨ A max. 5 / A ⇨ C max. 16 / C ⇨ A max. 16	
Kv value	m^3/h 55,0	
vacuum	leak rate	< 10^{-4} 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 20	
switching time	ms opening 600 closing 800	
media temperature	°C DC: -20 to +80 AC: -20 to +80	
ambient temperature	°C DC: -20 to +80 AC: -20 to +80	
limit switches		inductive
manual override		
approvals		LR/DNV/WAZ
mounting		
weight	kg FK 48,8	
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	
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 4,36 A AC 230 V 40-60 Hz 0,63 A	
	H-coil	AC 230 V 40-60 Hz 0,76 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

⚠ 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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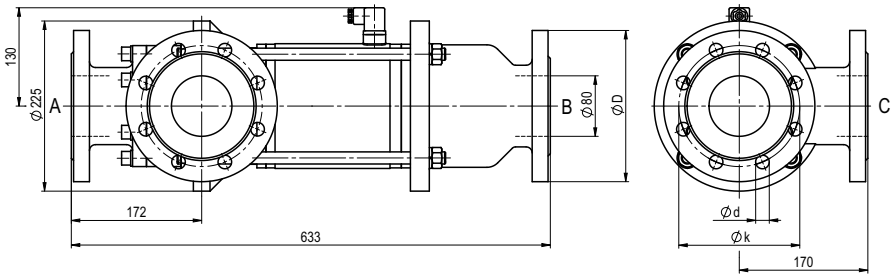
type FK 80 DR

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



flanges PN	DIN	ØD	Øk	Ød
16	EN 1092-1	200	160	18

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