coax® data sheet - coaxial valve

type FCF 80

03/2022

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

details needed for main valve

- orifice
- port
- function NC/NO
- operating pressure
- flow rate
- media
- media temperature
- ambient temperature
- type of actuation

details needed for pneumatic actuation

- nominal voltage
- type of protection
- actuation pressure range min/max
- pilot valve type

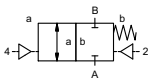
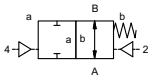
details needed for hydraulic actuation

- actuation pressure range min/max
- hydraulic control valve function

⚠ 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.

■ specifications not highlighted are standard
specifications highlighted in grey are optional

2/2-way valve	**externally controlled**	
pressure range	PN 0-40 bar	
orifice	DN 80 mm	
connection	flange	
function	valve normally closed symbol **NC**	
	valve normally open symbol **NO**	
operating principle	pressure balanced, with spring return	
body material	⓪ aluminium	②
	③	⑤
	④	⑥
valve seat	synthetic materials on metal	
seal materials	NBR, PU	PTFE, FPM, PE

	general specifications		**options**
ports	FCF	flanges PN 16 / 40	
function		NC	NO
pressure range	bar	0-16 / 0-40	
Kv value	m³/h	133,0	
vacuum	leak rate		< 10^{-4} mbar•l•s^{-1}
pressure-vacuum	$P_1 \Leftrightarrow P_2$		pressure side max. 40 bar vacuum side leak rate upon request
back pressure	$P_2 > P_1$		available (max. 16 bar)
media		emulsion - oil - neutral gases	other medias upon request
abrasive media			
damping	opening		
	closing	by throttles on pilot valve	
flow direction	A ⇨ B	as marked	bi-directional upon request
switching cycles	1/min	50	
switching time	ms	opening 350-3000	
		closing 350-3000	
media temperature	°C	direct mounted pilot valve 60	> 60 °C upon request
ambient temperature	°C	direct mounted pilot valve 50	> 50 °C upon request
flush ports			
leak ports			
limit switches			inductive
manual override		via pilot valve	
approvals			upon request
mounting			
weight	kg	FCF 14,5	
additional equipment		sensor / manometer connection G 1/4	

	electrical specifications		**options**
nominal voltage	U_n	DC 24 V	special voltage upon request
	U_n	AC 230 V 50 Hz	special voltage upon request
power consumption	DC	4,8 W	
	AC	pick up 11,0 VA holding 8,5 VA	
protection	IP65 (P54)	acc. DIN 40050	
energized duty rating	ED	100%	
connection		plug acc. DIN EN 175301-803 form B, 4 positions x90° / wire diameter 6-8 mm	
optional	M12x1	connector acc. DESINA	connector acc. VDMA
additional equipment		illuminated plug with varistor	
max. temperature	media	60°C	
	ambient	50°C	
explosion proof	E Ex e II T5	nominal voltage U_n	DC 24 V 3,25 W
		power consumption	AC 230 V 50 Hz 2,90 W

	pneumatic specifications		**options**
actuation pressure range	bar	4-10	3-10 upon request
air consumption	cm³/stroke	100	
cycle speed		main valve speed variable by throttleson pilot valve	
control		preferably 5/2 way pilot valve	
pilot valve interface		NAMUR acc. VDI / VDE 3845	ISO 1 acc. DIN 5599/1
actuator ports	2/4	G 1/4	G 3/8

	hydraulic specifications		**options**
actuation pressure range	bar	30-60	
control		preferably 4/2 way control valve	
actuator ports	X/Y	G 1/4	NPT 1/4
by media			

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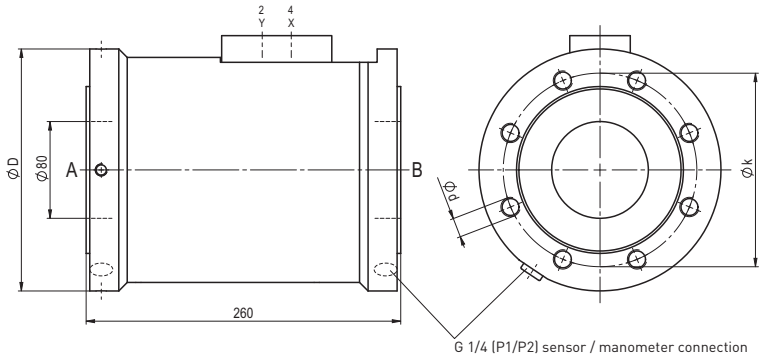
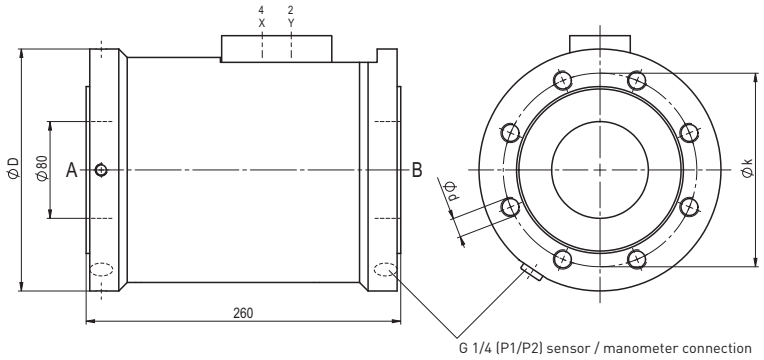
type FCF 80

function: **NC**
closed when not energized

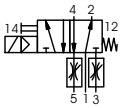


flanges PN	DIN	ØD	Øk	Ød
16	EN 1092-1	200	160	M16
40	EN 1092-1	200	160	M16

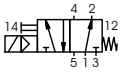
function: **NO**
open when not energized



pneumatic specifications



5/2 way pilot valve
flow rate 700 l/min
pressure range 3-10 bar G 1/8



5/2 way pilot valve ISO 1
flow rate 700 l/min
pressure range 3-10 bar G 1/4

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