

# coaxial valve

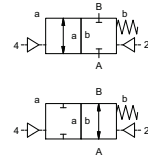
## type FCF 125

### 5-FCF 125

valve type with pilot valve



**2/2 way valve** externally controlled  
**pressure range** PN 0-40 bar  
**orifice** DN 125 mm  
**connection** flange  
**function** valve normally closed  
 symbol **NC**  
 valve normally open  
 symbol **NO**



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

**design** pressure balanced, with spring return  
**body materials** ① aluminium ②  
 ③ ⑤  
 ④ ⑥  
**valve seat** synthetic resin on metal  
**seal materials** NBR, PU PTFE, FPM, PE

**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.

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

**general specifications**

ports	FCF	flanges PN 16 / 40
function	NC	NO
pressure range	bar	0-16 / 0-40
Kv value	m <sup>3</sup> /h	227,0
vacuum	leak rate	< 10 <sup>-4</sup> mbar·l·s <sup>-1</sup>
pressure-vacuum	P <sub>1</sub> ↔ P <sub>2</sub>	pressure side max. 40 bar vacuum side leak rate upon request
back pressure	P <sub>2</sub> > P <sub>1</sub>	available (max. 16 bar)
media	emulsions - oils - 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 (max. 16 bar)
switching cycles	1/min	30
switching time	ms	opening 700-3000 closing 450-3000
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 upon request
manual override	via pilot valve	
approvals		upon request
mounting		
weight	kg	FCF 52,0
additional equipment		sensor / manometer connection G 1/4

**options**

**electrical specifications**

nominal voltage	U <sub>n</sub>	DC 24 V	special voltage upon request
	U <sub>n</sub>	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	optional	plug acc. DIN EN 175301-803 form B, 4 positions x90° / wire diameter 6-8 mm	connector acc. VDMA
additional equipment	M12x1	connector acc. DESINA	connector acc. VDMA
max. temperature	media	60°C	
	ambient	50°C	
explosion proof	E Ex e II T5	nominal voltage U <sub>n</sub>	DC 24 V 3,25 W
		power consumption	AC 230 V 50 Hz 2,90 W

**options**

**pneumatic specifications**

actuation pressure range	bar	4-10	3-10 upon request
air consumption	cm <sup>3</sup> /stroke	480	
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

**options**

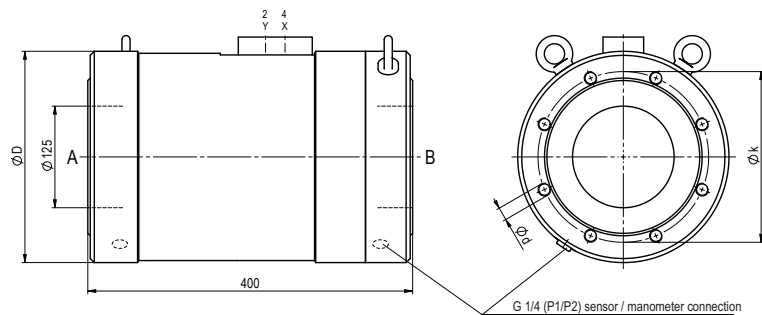
**hydraulic specifications**

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			

**options**

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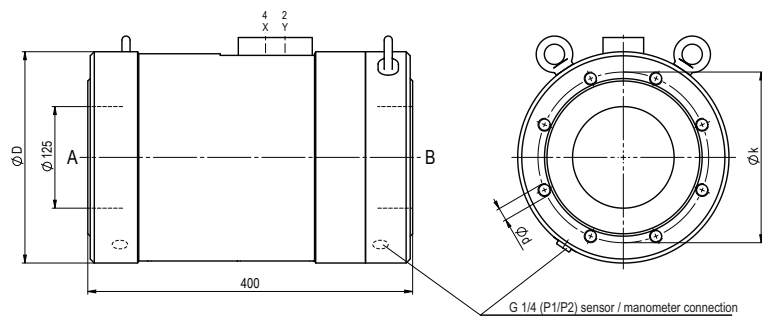
function: **NC**  
closed when not energized



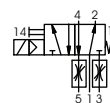
flanges PN	DIN	ØD	Øk	Ød
16	EN 1092-1	260	210	M16
40	EN 1092-1	280	220	M24

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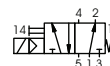
function: **NO**  
open when not energized



### pneumatic actuation



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