coax® data sheet - coaxial valve

type VMK 15 DR VFK 15 DR



09/2022



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
- inlet pressure at A, B or C
- 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

3/2 way valve	
pressure range	
orifice	
connection	
function	

operating principle body material

valve seat seal materials

ports

function pressure range

Kv value vacuum pressure-vacuum

back pressure media

abrasive media damping

flow direction switching cycles switching time

media temperature
ambient temperature
flush ports
leak ports
limit switches
manual override
approvals
mounting
weight
additional equipment

kg

nominal voltage

power consumption

protection
energized duty rating
connection
optional
additional equipment
max. temperature

explosion proof

air consumption cycle speed

pilot valve interface actuator ports

actuation pressure range

actuation pressure range control actuator ports by media

externally controlled

PN 0-100 bar
DN 15 mm
thread/flange

valve

normally closed (A ▶B)

symbol **NC**

valve

normally open (A ►B)

symbol **NO**

pressure balanced, with spring return, intersecting switch-over

① brass

② steel galvanized

③ brass, nickel plated

(5) without non-ferr. Metals(6) stainless steel

4 steel, nickel plated

synthetic materials on metal

NBR PTFE, FPM, CR, EPDM

general specifications options

117/1 3.6 Leak rate < 10.6 mbar • 1 • s.1 P1⇔ P2 pressure side max. 100 bar vacuum side leak rate upon request

P₂ > P₁ see pressure range gaseous - liquid - highly viscous - gelatinous - pasty - contaminated

opening
closing by throttles on pilot valve
see pressure range

1/min 200
ms opening 50-3000
closing 50-3000
°C direct mounted pilot valve 60 remote mounted pilot valve outside
°C direct mounted pilot valve 50 temperatur range of media max. 160 °C
available
available
inductive / mechanical upon request

LR/DNV/WAZ
mounting brackets
VMK 4.5 VFK 5.3

upon request

electrical specifications options

Un	DC 24 V	special voltage upon request		
Un	AC 230 V 50 Hz	special voltage upon request		
DC	4.8 W	8 W 2.5 W (actuation pressure range 4-7 bar)		
AC	pick up 11.0 VA holding 8.5 VA			
P65 (P54)	acc. DIN 40050			
ED	100%			
	plug acc. DIN EN 175301-803 form B, 2 positions x180° / wire diameter 6-8 mm			
M12x1	connector acc. DESINA	connector acc. VDMA		
	illuminated plug with varistor			
media	60°C			
ambient	50°C			
E Ex e II T5	nominal voltage Un	DC 24 V 3.25 W		
	power consumption	AC 230 V 50 Hz 2.90 W		
M12x1 media ambient	connector acc. DESINA illuminated plug with varistor 60°C 50°C nominal voltage Un	connector acc. VDMA DC 24 V 3.25 W		

pneumatic specifications options

bar	4-8	
cm³/stroke	11	
	main valve speed variable by throttleso	n pilot valve
	preferably 5/2 way pilot valve	
	co-ax / Namur	ISO 1
2/4	G 1/8	G 1/4

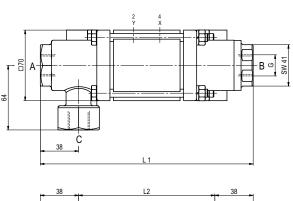
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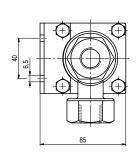
bar	15-30 / 30-60		
	preferably 4/2 way control valve		
X/Y	G 1/4	NPT 1/4	

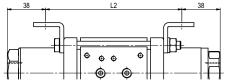
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function: NC closed when not energized (A \triangleright B)



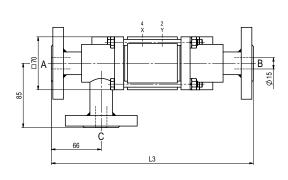


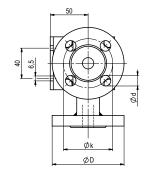


constructive length	L1	L2	L3
standard	211	135	267
with inductive limit switches	237	161	293
with force-feed lubrication nipple	244	168	300
with mechanical limit switches	237	161	293

flanges PN	DIN	ØD	Øk	Ød
16	EN 1092-1	95	65	14
40	EN 1092-1	95	65	14
100	EN 1092-1	105	75	14

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





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