coax® data sheet - coaxial valve

type VMK 10



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
- 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	
pressure range	
orifice	
connection	
function	

body material

ports

externally controlled PN 0-100 bar

DN 10 mm

thread

normally closed symbol NC

valve normally open

symbol NO

operating principle pressure balanced, with spring return

(4)

bar

m³/h

leak rate

1 brass2 (5) ③ brass, nickel plated

threads G 1/4 - G 3/4

0-16 / 0-40 / 0-63 / 0-100

2.5 (> 63 bar = 2.1)

@ aluminium

valve seat synthetic materials on metal seal materials

general specifications

PTFE, FPM, CR, EPDM

6 stainless steel

options

NO

special threads

< 10⁻⁶ mbar•l•s⁻¹

function	
pressure range	
W	
Kv value	
vacuum	
pressure-vacuum	
back pressure	
media	
abrasive media	
damping	
flow direction	
switching cycles	
switching time	
media temperature	
ambient temperature	

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damping
flow direction
switching cycles
switching time
media temperature
ambient temperature
flush ports
leak ports
limit switches
manual override
approvals
mounting
weight
additional equipment
· ·

nominal voltage

optional additional equipment

power consumption protection energized duty rating connection

max. temperature

explosion proof

teak rate		< 10 IIIbai etes
P1⇔ P2		pressure side max. 100 bar
		vacuum side leak rate upon request
P2 > P1		available (max. 16 bar)
	gaseous - liquid - highly viscous -	
	gelatinous - pasty - contaminated	
		upon request
opening		
closing	by throttles on pilot valve	
A⇔B	as marked	bi-directional upon request
1/min	680	
ms	opening 30-3000	
	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
	·	
		inductive
	via pilot valve	
	·	LR/DNV/WAZ
		mounting brackets
kg	VMK 1.7	-
		upon request

electrica	al specificati
Un	DC 24 V
Un	AC 230 V 5
0.0	/ 0 14/

pneumatic specifications

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	2.5 W (actuation pressure range 4-7 bar)
AC	pick up 11.0 VA holding 8.5 VA	
IP65 (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 U₁	DC 24 V 3.25 W
	power consumption	AC 230 V 50 Hz 2.90 W

actuation pressure range
air consumption
cycle speed
control

air consumption	
cycle speed	
control	
pilot valve interface	
actuator ports	
	_

actuation pressure ra

actuator ports

by media

	hydraulic specifications		
nge	bar	4-10	
	-	preferably 4/2 v	
	X/Y	G 1/8	

oar	4-8	
:m³/stroke	2	
	main valve speed variable by throttleso	n pilot valve
	preferably 5/2 way pilot valve	
	co-ax	NAMUR acc. VDI / VDE 3845
2/4	G 1/8	

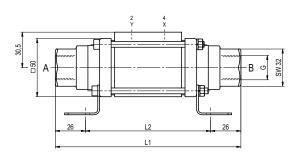
options

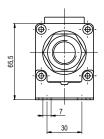
iiyui au	iic specifications	options	
bar	4-10		
	preferably 4/2 way control valve		
X/Y	G 1/8		

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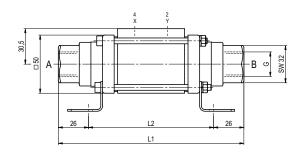
function: **NC** closed when not energized

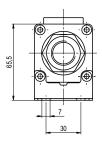




constructive length	L1	L2 (0-63 bar)	L2 (> 63 bar)
standard	159,5	107,5	114,5
with inductive limit switches	179,5	127,5	134,5

function: **NO** open when not energized





pneumatic specifications



5/2 way pilot valve flow rate 280 l/min pressure range 3-10 bar G 1/8