## coax® data sheet - coaxial valve

# type VMK 40 VFK 40



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

### 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
leak ports
limit switches
manual override
approvals
mounting
weight

#### nominal voltage

power consumption

additional equipment

protection
energized duty rating
connection
optional
additional equipment
max. temperature

explosion proof

#### actuation pressure range air consumption cycle speed control pilot valve interface actuator ports

actuation pressure range control actuator ports by media

#### externally controlled

PN 0-100 bar
DN 40 mm
thread/flange

valve

normally closed symbol **NC** 

valve normally open

# symbol **NO**pressure balanced, with spring return

① ③

② steel galvanized ⑤ without non-ferr. Metals

4 steel, nickel plated

6 stainless steel

#### synthetic materials on metal

NBR PTFE, FPM, CR, EPDM

# general specifications options VMK threads G 1 1/2 - G 2 special threads

 VFK
 flanges PN 100
 special flanges

 NC
 NO

 bar
 0-63 / 0-100
 > 100 bar upon request

 m³/h
 31.0

 leak rate
 < 10⁴ mbar •[•s⁻¹]</td>

 $P_1 \Leftrightarrow P_2$  pressure side max. 100 bar vacuum side leak rate upon request  $P_2 > P_1$  available [max. 16 bar]

gaseous - liquid - highly viscous gelatinous - pasty - contaminated

opening by throttles on pilot valve closing as marked 150 bi-directional upon request A ⇒ B 1/min 100-3000 ms opening 100-3000 closing direct mounted pilot valve 60 remote mounted pilot valve outside temperatur range of media max. 160 °C direct mounted pilot valve 50

available available inductive / mechanical upon request via pilot valve LR/DNV/WAZ mounting brackets

upon request

## electrical specifications options

VMK 11.2 VFK 13.6

kg

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 Un	DC 24 V 3.25 W
	power consumption	AC 230 V 50 Hz 2.90 W

#### pneumatic specifications options

bar	4-8	
cm³/stroke	65	
	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

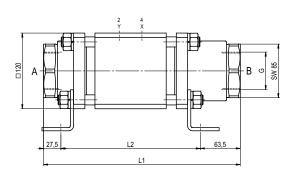
#### hydraulic specifications options

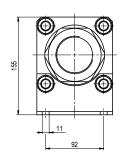
bar	15-30 / 30-60		
	preferably 4/2 way control valve		
X/Y	G 1/4	NPT 1/4	

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function: **NC** closed when not energized

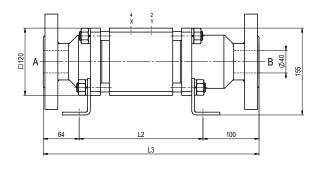


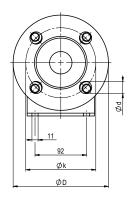


constructive length	L1	L2	L3
standard	312	221	385
with inductive limit switches	312	221	385
with force-feed lubrication nipple	312	221	385
with mechanical limit switches	-	-	-

flanges PN	DIN	ØD	Øk	Ød
100	EN 1092-1	170	125	22

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