

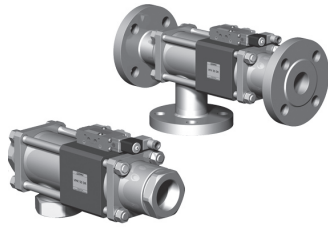
5-VMK 50 DR

5-VFK 50 DR

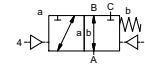
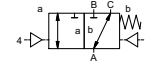
valve type with pilot valve

# coaxial valve

## type VMK 50 DR VFK 50 DR



**3/2 way valve** externally controlled  
**pressure range** PN 0-100 bar  
**orifice** DN 50 mm  
**connection** thread/flange  
**function** valve normally closed (A ► B) symbol **NC**  
 valve normally open (A ► B) 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, intersecting switch-over  
**body materials** ① ② steel, galvanized  
 ③ ⑤ without non-ferr. metals  
 ④ steel, nickel plated ⑥ stainless steel  
**valve seat** synthetic resin on metal  
**seal materials** NBR PTFE, FPM, CR, EPDM

**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
- low wattage coil, actuation pressure range 4-7 bar
- 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      |  | options  |
|-----------------------------|--|--|
| <b>ports</b>                | VMK threads G 2<br>VFK flanges PN 64/100                                       | special threads<br>special flanges                               |
| <b>function</b>             | NC   | NO   |
| <b>pressure range</b>       | bar 0-64/0-100<br>A ⇒ B max.100 / B ⇒ A max.16 / A ⇒ C max.100 / C ⇒ A max.100 | > 100 bar  |
| <b>Kv value</b>             | m <sup>3</sup> /h 43,0   |  |
| <b>vacuum</b>               | leak rate  | < 10 <sup>-6</sup> mbar·l/s <sup>-1</sup>                        |
| <b>pressure-vacuum</b>      | P <sub>1</sub> ⇔ P <sub>2</sub>  | pressure side max. 100 bar<br>vacuum side leak rate upon request |
| <b>back pressure</b>        | P <sub>2</sub> > P <sub>1</sub> see pressure range                             |  |
| <b>media</b>                | gaseous - liquid - highly viscous -<br>gelatinous - pasty - contaminated       |  |
| <b>abrasive media</b>       |  | version available  |
| <b>damping</b>              | opening<br>closing by throttles on pilot valve                                 |  |
| <b>flow direction</b>       | see pressure range   |  |
| <b>switching cycles</b>     | 1/min 100  |  |
| <b>switching time</b>       | ms opening 150-3000 closing 150-3000   |  |
| <b>media temperature</b>    | °C direct mounted pilot valve 60   | remote mounted pilot valve outside temper.                       |
| <b>ambient temperature</b>  | °C direct mounted pilot valve 50   | ature range of media max.160°C                                   |
| <b>flush ports</b>          |  | available  |
| <b>leak ports</b>           |  | available  |
| <b>limit switches</b>       |  | inductive/mechanical upon request                                |
| <b>manual override</b>      | via pilot valve  |  |
| <b>approvals</b>            |  | LR/GL/WAZ  |
| <b>mounting</b>             |  | mounting brackets  |
| <b>weight</b>               | kg VMK 19,5 VFK 31,4   |  |
| <b>additional equipment</b> |  | upon request   |

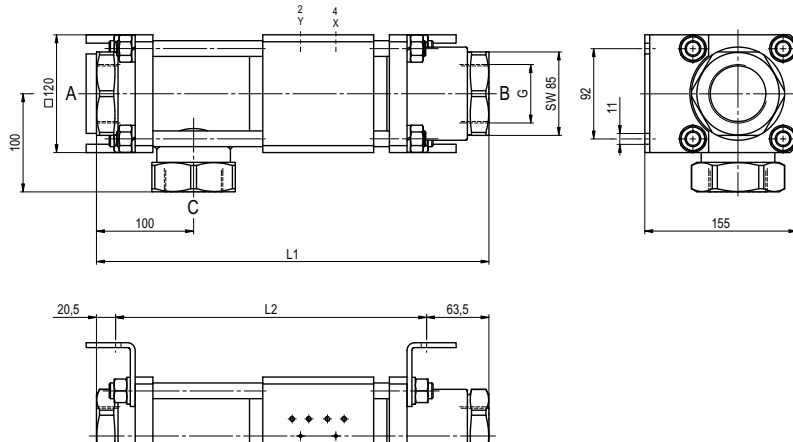
| electrical specifications    |  | options  |
|------------------------------|--|--|
| <b>nominal voltage</b>       | U <sub>n</sub> DC 24V<br>U <sub>n</sub> AC 230V 50 Hz                        | special voltage upon request<br>special voltage upon request         |
| <b>power consumption</b>     | DC 4,8 W<br>AC pick up 11,0 VA holding 8,5 VA                                | 2,5 W  |
| <b>protection</b>            | IP 65 (P54) acc. DIN 40 050  |  |
| <b>energized duty rating</b> | ED 100%  |  |
| <b>connection</b>            | plug acc. DIN EN 175301-803 form B, 4 positions x 90° / wire diameter 6-8 mm |  |
| <b>additional equipment</b>  | illuminated plug with varistor   |  |
| <b>optional</b>              | M12x1 connector acc. DESINA  | connector acc. VDMA  |
| <b>max. temperature</b>      | media 60°C<br>ambient 50°C   |  |
| <b>explosion proof</b>       | EEx m II T5 nominal voltage U <sub>n</sub><br>power consumption              | direct current 24 V 3,25 W<br>alternating current 230 V 50 Hz 2,90 W |

| pneumatic specifications        |   | options |
|---------------------------------|---|---------|
| <b>actuation pressure range</b> | bar 4-10  |         |
| <b>air consumption</b>          | cm <sup>3</sup> /stroke 65                            |         |
| <b>cycle speed</b>              | main valve speed variable by throttles on pilot valve |         |
| <b>control</b>                  | preferably 5/2-way pilot valve                        |         |
| <b>pilot valve interface</b>    | co-ax / NAMUR   | ISO 1   |
| <b>actuator ports</b>           | 2/4 G 1/8   | G 1/4   |

| hydraulic specifications        |                                  | options |
|---------------------------------|----------------------------------|---------|
| <b>actuation pressure range</b> | bar 10-30 / 30-60                |         |
| <b>control</b>                  | preferably 4/2-way control valve |         |
| <b>actuator ports</b>           | X/Y G 1/4                        | NPT 1/4 |

# type VMK 50 DR

function: **NC**  
closed when not energized (A ► B)

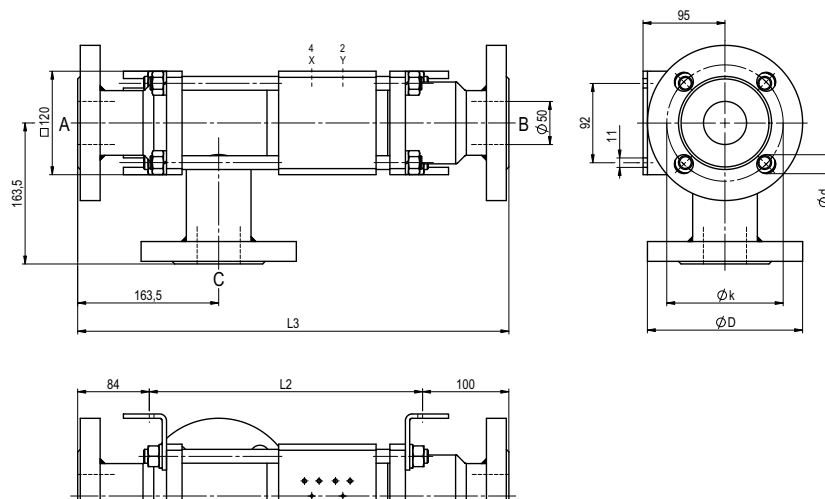


| constructive length                | L1  | L2  | L3  |
|------------------------------------|-----|-----|-----|
| standard                           | 400 | 316 | 500 |
| with 1/2 inductive limit switches  | 400 | 316 | 500 |
| with force-feed lubrication nipple | 400 | 316 | 500 |
| with mechanical limit switches     | -   | -   | -   |

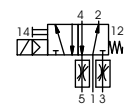
| flanges PN | DIN  | øD  | øk  | ød |
|------------|------|-----|-----|----|
| 64         | 2636 | 180 | 135 | 22 |
| 100        | 2637 | 195 | 145 | 26 |

# type VFK 50 DR

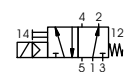
function: **NO**  
open when not energized (A ► B)



### 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

The application-specific layout relating to temperature, pressure conditions, switching behavior, media and its consistency may restrict the range of use or necessitate relevant modifications to materials used and seal arrangements.

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