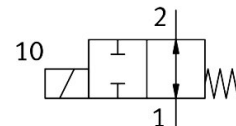


# Solenoid valve

## VYKA-F7-M22U-12-D2-PF-5YQ7

Part number: 8114568

FESTO



## Data sheet

| Feature                                        | Value                                                                                           |
|------------------------------------------------|-------------------------------------------------------------------------------------------------|
| Structural design                              | Rocker valve with diaphragm seal                                                                |
| Sealing principle                              | Soft                                                                                            |
| Materials in contact with the media            | FFPM<br>PEEK                                                                                    |
| For use in the food industry                   | See supplementary material information                                                          |
| Valve function                                 | 2/2, open, monostable                                                                           |
| Nominal width                                  | 1.2 mm                                                                                          |
| Flow direction                                 | Reversible with restrictions                                                                    |
| Actuation type                                 | Electrical                                                                                      |
| Type of control                                | Direct                                                                                          |
| Reset method                                   | Mechanical spring                                                                               |
| Manual override                                | None                                                                                            |
| Mounting position                              | Any                                                                                             |
| Type of mounting                               | With through-hole for M2 screw                                                                  |
| Electrical connection 1, connection type       | Socket                                                                                          |
| Electrical connection 1, connection technology | Connection diagram Q7                                                                           |
| Electrical connection 1, number of pins/wires  | 2                                                                                               |
| Size                                           | 7                                                                                               |
| Width dimension                                | 7.5 mm                                                                                          |
| Fluid connector                                | Flange                                                                                          |
| Medium                                         | Liquid media<br>Gaseous media                                                                   |
| Information on medium                          | Observe resistance of materials that come into contact with media<br>Maximum particle size 5 µm |
| Internal volume                                | 15 µl fluid space valve<br>21 µl valve with fluid connections                                   |
| Temperature of liquid media                    | 15 °C...50 °C                                                                                   |
| Medium temperature gaseous media               | 15 °C...50 °C                                                                                   |
| Ambient temperature                            | 15 °C...50 °C                                                                                   |
| Storage temperature                            | -20 °C...70 °C                                                                                  |
| Medium pressure                                | 0 MPa...0.2 MPa<br>0 bar...2 bar<br>0 psi...29 psi                                              |

| Feature                                           | Value                                                                                                                                                                                                        |
|---------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Note on the medium pressure                       | IN: 0 – 2 bar / 0 – 0.2 MPa / 0 – 29 psi<br>OUT: 0 – 1 bar / 0 – 0.1 MPa / 0 – 14.5 psi                                                                                                                      |
| Burst pressure                                    | 2.3 MPa<br>23 bar<br>333.5 psi                                                                                                                                                                               |
| DC operating voltage range                        | 12 V...26 V                                                                                                                                                                                                  |
| Note on operating voltage range DC                | With electrical sub-base VAVE-K1-...                                                                                                                                                                         |
| Permissible voltage fluctuations                  | +/- 10 %                                                                                                                                                                                                     |
| Electrical power consumption                      | 3.5 W                                                                                                                                                                                                        |
| Note on power consumption                         | Low-current phase 0.3 W, high-current phase 3.5 W for 60 ms, in combination with VAVE-K1-...                                                                                                                 |
| Coil characteristics                              | 12 - 26 V DC: low-current phase 0.06 W, high-current phase 2.2 W                                                                                                                                             |
| Insulation class                                  | B                                                                                                                                                                                                            |
| Duty cycle                                        | 100% in combination with holding current reduction<br>Follow the instructions on operating the air solenoid valves.                                                                                          |
| Max. switching frequency                          | 6 Hz                                                                                                                                                                                                         |
| Note on switching frequency                       | Dependent on the ambient temperature and installation state<br>At 100% duty cycle depending on ambient temperature and installation condition. Higher switching frequencies possible with duty cycle < 100%. |
| Response time "off" for liquid media              | 7 ms                                                                                                                                                                                                         |
| Switching time off gaseous media                  | 6 ms                                                                                                                                                                                                         |
| Normal nominal flow rate (normalized to DIN 1343) | 7 l/min                                                                                                                                                                                                      |
| Note on standard nominal flow rate                | At a pressure drop of 1 -> 0 bar (gaseous media)                                                                                                                                                             |
| Flow rate Kv                                      | 0.013 m³/h<br>0.22 l/min                                                                                                                                                                                     |
| Note on flow rate Kv                              | For the medium water<br>Pressure difference 1 bar                                                                                                                                                            |
| Water flow rate at max. operating pressure        | 0.018 m³/h<br>0.3 l/min                                                                                                                                                                                      |
| Housing material                                  | PA-reinforced<br>PEEK<br>PPA-reinforced                                                                                                                                                                      |
| Diaphragm material                                | FFPM                                                                                                                                                                                                         |
| Seals material                                    | FFPM                                                                                                                                                                                                         |
| Note on materials                                 | RoHS-compliant                                                                                                                                                                                               |
| LABS (PWIS) conformity                            | VDMA24364 zone III                                                                                                                                                                                           |
| Product weight                                    | 10.9 g                                                                                                                                                                                                       |
| Degree of protection                              | IP40                                                                                                                                                                                                         |
| Note on degree of protection                      | In mounted state                                                                                                                                                                                             |
| Application note                                  | For indoor use only                                                                                                                                                                                          |
| Corrosion resistance class (CRC)                  | 0 - No corrosion stress                                                                                                                                                                                      |