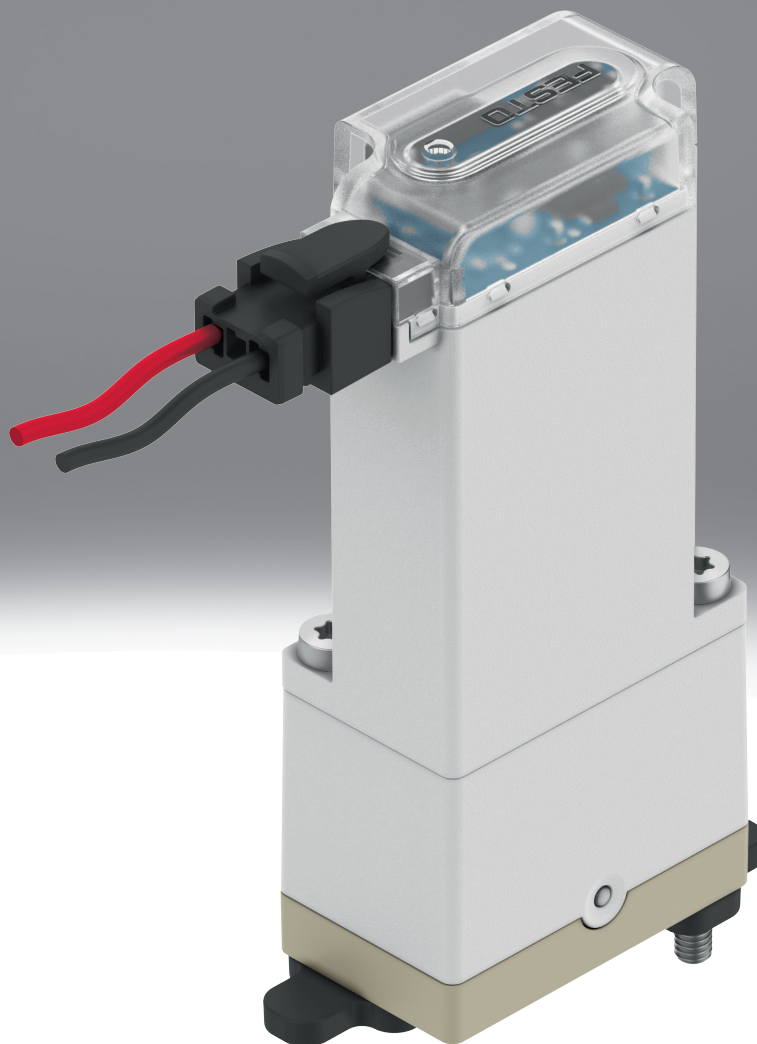


## Media separated solenoid valve VYKC

**FESTO**



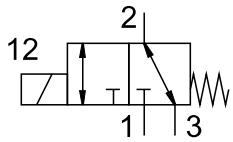
## Characteristics

### At a glance

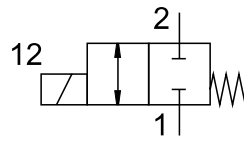
The media separated solenoid valve VYKC is intended to be mounted on laboratory devices. The product is used to control gaseous and liquid media within its technical data.

### Valve function

[32] 3/2-way valve



[M22C] 2/2-way valve, normally closed



## Type code

|      |                     |  |
|------|---------------------|--|
| 001  | Series              |  |
| VYKC | Solenoid valve VYKC |  |

|     |                                |  |
|-----|--------------------------------|--|
| 002 | Directional control valve type |  |
| F   | Flanged valve                  |  |

|     |         |  |
|-----|---------|--|
| 003 | Size    |  |
| 16  | Size 16 |  |

|      |  |  |
|------|--|--|
| 004  | Valve function                         |  |
| M22C | 2/2-way valve, normally closed         |  |
| M32  | 3/2-way valve, normally closed or open |  |

|     |               |  |
|-----|---------------|--|
| 005 | Nominal width |  |
| 20  | 2 mm          |  |

|     |                  |  |
|-----|------------------|--|
| 006 | Housing material |  |
| P   | PEEK             |  |

|     |                                |  |
|-----|--------------------------------|--|
| 007 | Diaphragm and sealing material |  |
| E   | EPDM                           |  |

|     |                                       |  |
|-----|---------------------------------------|--|
| 008 | Electrical connection                 |  |
| H2  | Connection pattern H, horizontal plug |  |

|     |  |  |
|-----|--|--|
| 009 | Circuitry  |  |
| R   | Holding current reduction with integrated protective circuit |  |

## Datasheet

| General technical data                          |   |   |
|---|---|---|
| Valve function                                  | 2/2-way, closed, monostable   | 3/2-way, monostable, open/closed                                      |
| Size  | 16  |   |
| Design  | Electrical connection at top<br>Electrical connection at the side<br>Rocker valve with diaphragm seal | Electrical connection at the side<br>Rocker valve with diaphragm seal |
| Type of reset                                   | Mechanical spring   |   |
| Nominal size                                    | 2 mm  |   |
| Fluid connection                                | Flange  |   |
| Flow rate Kv                                    | 0.048 m <sup>3</sup> /h   | 0.046 m <sup>3</sup> /h   |
| Internal volume                                 | 110 µl valve with fl. conn.<br>89 µl fluid chamber valve  | 59 µl fluid chamber valve<br>94 µl valve with fl. conn.               |
| Sealing principle                               | Soft  |   |
| Flow direction                                  | Reversible with restrictions  |   |
| Type of actuation                               | Electric  |   |
| Type of piloting                                | Direct  |   |
| Manual override                                 | None  |   |
| Type of mounting                                | With through-hole for M2.5 screw  |   |
| Mounting position                               | optional  |   |
| Degree of protection                            | IP40  |   |
| Corrosion resistance class<br>CRC <sup>1)</sup> | 0 - No corrosion stress   |   |
| Product weight                                  | 50 g  |   |

1) More information: [www.festo.com/x/topic/crc](http://www.festo.com/x/topic/crc)

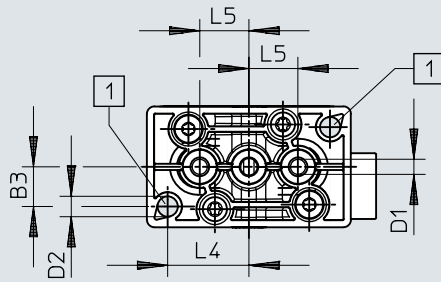
| Operating and environmental conditions |   |
|--|---|
| Medium                                 | Liquid media<br>Gaseous media   |
| Note on the medium                     | Observe resistance of materials that come into contact with the media<br>Maximum particle size 5 µm |
| Media temperature                      | 0 ... 50°C  |
| Media temperature for fluids           | 0 ... 50°C  |
| Ambient temperature                    | 0 ... 50°C  |
| Storage temperature                    | -20 ... 70°C  |
| Medium pressure                        | -0.75 ... 2 bar   |

| Materials                           |                |
|-------------------------------------|----------------|
| Material in contact with the medium | EPDM<br>PEEK   |
| Material housing                    | PEEK           |
| Material membrane                   | EPDM           |
| Material seals                      | EPDM           |
| Note on materials                   | RoHS-compliant |

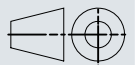
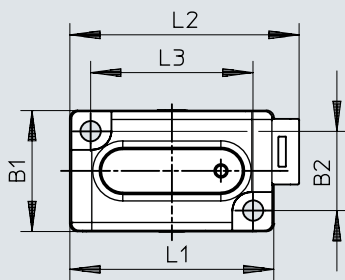
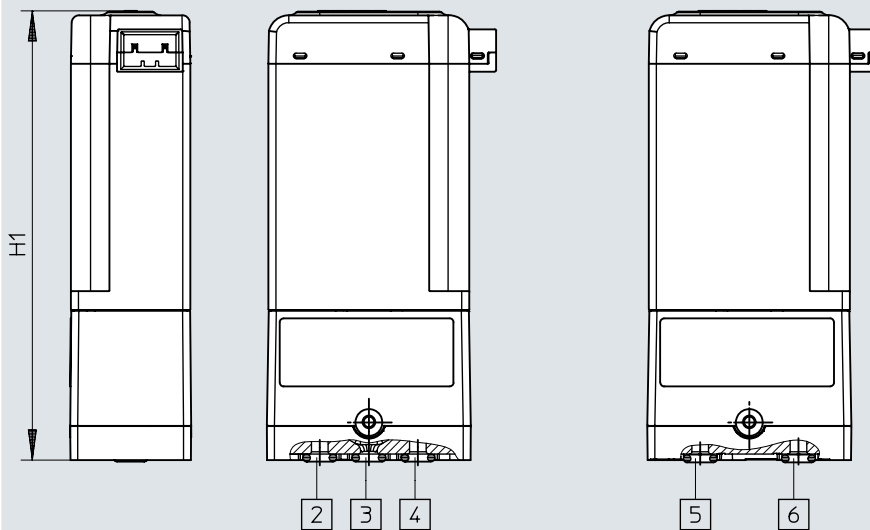
| Electrical data                           |   |
|---|---|
| Operational voltage range DC              | 12 V, 24 V  |
| Permissible voltage fluctuations          | +/- 10%   |
| Electrical connection 1, connection type  | Cable with plug   |
| Electrical connection 1, connector system | Connection pattern H  |
| Characteristic coil data                  | 12 - 24 V DC: low-current phase 0.26 W, high-current phase 0.63 W   |
| Duty cycle                                | 100%<br>100% in conjunction with holding current reduction<br>Observe the notes on operating the solenoid valves. |

## Dimensions

## Dimensions – Solenoid valve VYKC

Download CAD data → [www.festo.com](http://www.festo.com)

VYKC-F16-M22C-...



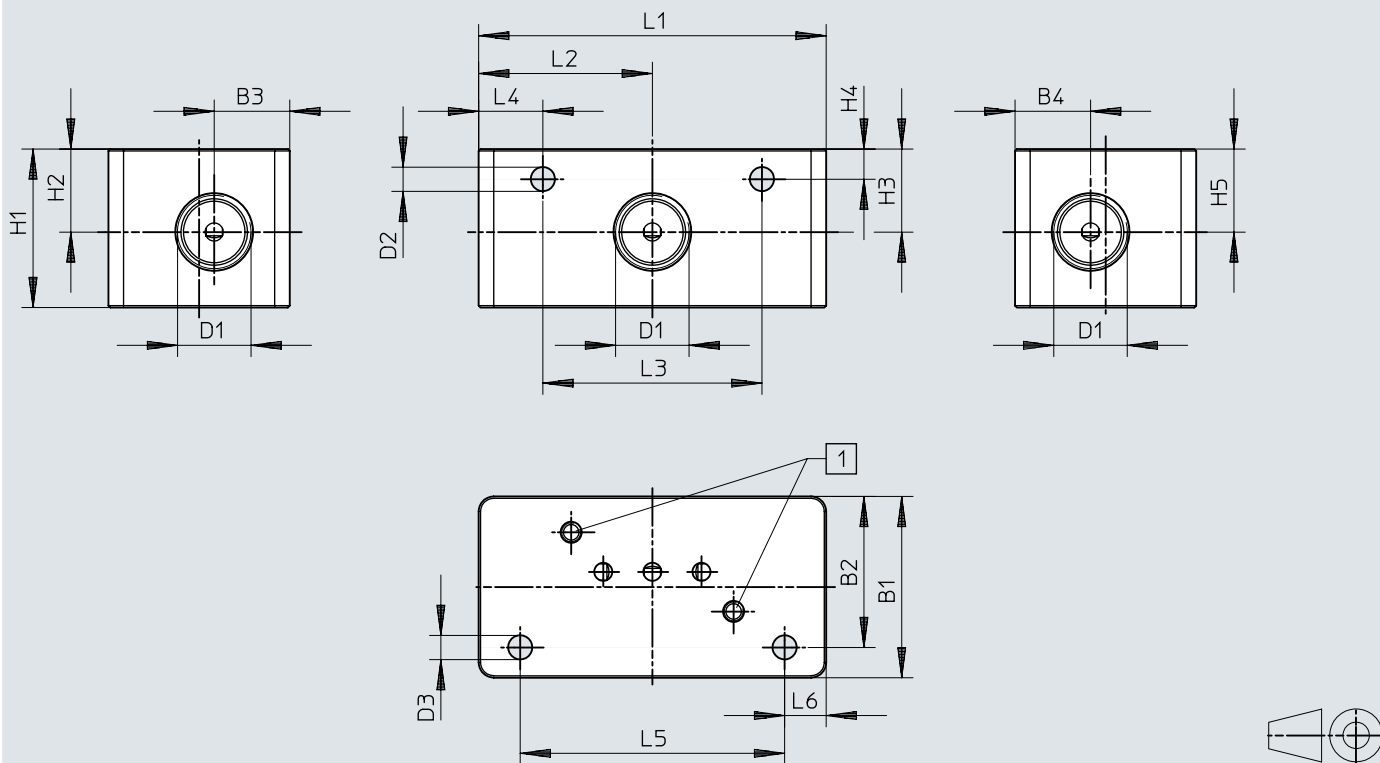
- [1] Mounting holes. Screws enclosed for M2.5 thread
- [2] Connection NO
- [3] Connection COM
- [4] Connection NC
- [5] Connection IN
- [6] Connection OUT

|                         | B1   | B2   | B3  | D1<br>∅ | D2<br>∅ | H1   | L1   | L2   | L3   | L4   | L5  |
|-------------------------|------|------|-----|---------|---------|------|------|------|------|------|-----|
|                         | ±0,3 |      |     |         |         | ±0,4 | ±0,3 | ±0,4 |      |      |     |
| VYKC-F16-M32-20-PE-H2R  | 16   | 10,5 | 5,3 | 2,2     | 2,7     | 59,5 | 27   | 30,3 | 21,5 | 10,8 | 6,5 |
| VYKC-F16-M32-20-PE-H2   |      |      |     |         |         |      |      |      |      |      |     |
| VYKC-F16-M22C-20-PE-H2R |      |      |     |         |         |      |      |      |      |      |     |
| VYKC-F16-M22C-20-PE-H2  |      |      |     |         |         |      |      |      |      |      |     |

## Dimensions

Dimensions – Manifold rail VABS-K2-16S


Download CAD data → [www.festo.com](http://www.festo.com)



[1] Mounting holes: M2.5 thread (depth 6.5 mm)

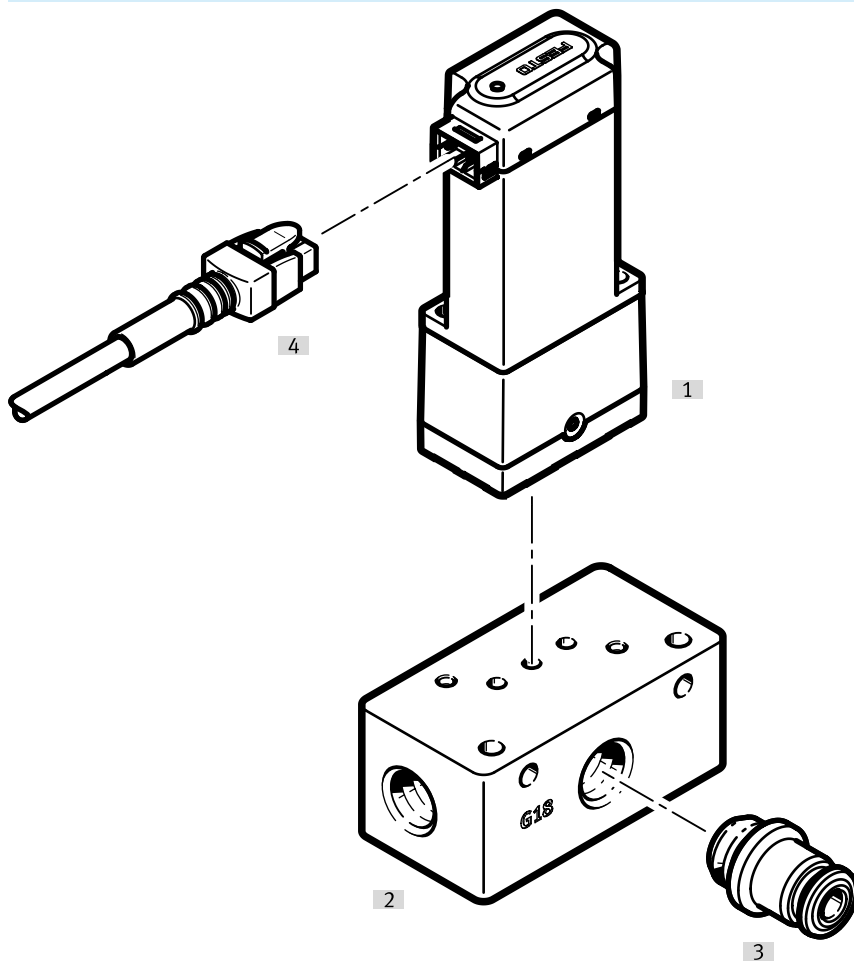
|                      | B1 | B2 | B3 | B4 | D1<br>ø   | D2<br>ø | D3<br>ø | H1 | H2  |
|----------------------|----|----|----|----|-----------|---------|---------|----|-----|
| VABS-K3-16S-20-G18-P | 24 | 20 | 10 | 10 | G1/8      | 3,2     | 3,2     | 21 | 11  |
| VABS-K3-16S-20-N18-P |    |    |    |    | NPT1/8-27 |         |         |    |     |
|                      | H3 | H4 | H5 | L1 | L2        | L3      | L4      | L5 | L6  |
| VABS-K3-16S-20-G18-P | 11 | 4  | 11 | 46 | 23        | 29      | 8,5     | 35 | 5,5 |
| VABS-K3-16S-20-N18-P |    |    |    |    |           |         |         |    |     |

## Ordering data

| Solenoid valve VYKC   |                                  |          |                         |
|---|----------------------------------|----------|-------------------------|
|   | Valve function                   | Part no. | Type                    |
|  | 2/2-way, closed, monostable      | 8172734  | VYKC-F16-M22C-20-PE-H2  |
|   |                                  | 8172719  | VYKC-F16-M22C-20-PE-H2R |
|   | 3/2-way, monostable, open/closed | 8172698  | VYKC-F16-M32-20-PE-H2R  |
|   |                                  | 8172707  | VYKC-F16-M32-20-PE-H2   |

## Peripherals

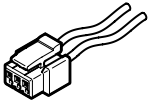
### Peripherals overview




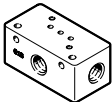
| Accessories     |                  |                  | → Page/Internet |
|-----------------|------------------|------------------|-----------------|
| Type/order code | Description      |                  |                 |
| [1]             | Solenoid valve   | VYKC             | –               |
| [2]             | Manifold rail    | VABS-K3          | 9               |
| [3]             | Fitting          | NPQR-DK-G18-...  | 9               |
| [4]             | Connecting cable | NEBV-H1G2-KN-... | 9               |




## Accessories

| Connecting cable  |  |                                       |   |              |                     |                        |
|---|--|---------------------------------------|---|--------------|---------------------|------------------------|
|   | Electrical connection 1, connection type | Electrical connection 1, cable outlet | Electrical connection 1, connector system | Cable length | Part no.            | Type                   |
|  | Socket                                   | Straight                              | Connection pattern H                      | 0.5 m        | ★ 566654            | NEBV-H1G2-KN-0.5-N-LE2 |
|   |  |                                       |   |              | ★ 566658            | NEBV-H1G2-P-0.5-N-LE2  |
|   |  |                                       |   | 1 m          | ★ 566659            | NEBV-H1G2-P-1-N-LE2    |
|   |  |                                       |   |              | ★ 566655            | NEBV-H1G2-KN-1-N-LE2   |
|   |  |                                       |   | 2.5 m        | ★ 566660            | NEBV-H1G2-P-2.5-N-LE2  |
|   |  |                                       |   |              | 5 m                 | 566657                 |
|   |  |                                       |   | 566661       | NEBV-H1G2-P-5-N-LE2 |                        |

| Valve control module  |  |  |   |          |                |
|---|--|--|---|----------|----------------|
|   | Communication interface, connection type | Communication interface, connection technology | Communication interface, number of pins/wires | Part no. | Type           |
|  | Socket                                   | M8x1, A-coded according to EN 61076-2-104      | 4   | 8088772  | VAEM-V-S8EPRS2 |

| Manifold rail  |                       |  |          |                      |
|--|-----------------------|--|----------|----------------------|
|  | Fluid connection      |  | Part no. | Type                 |
|  | Female thread 1/8 NPT |  | 8186872  | VABS-K3-16S-20-N18-P |
|  | Female thread G1/8    |  | 8186873  | VABS-K3-16S-20-G18-P |

| Fitting   |              |                              |                                      |          |                 |
|---|--------------|------------------------------|--------------------------------------|----------|-----------------|
|   | Nominal size | Pneumatic connection, port 1 | Pneumatic connection, port 2         | Part no. | Type            |
|  | 2.6 mm       | Male thread G1/8             | For tubing outside diameter of 4 mm  | 8085661  | NPQR-DK-G18-Q4  |
|   | 4.2 mm       |                              | For tubing outside diameter of 6 mm  | 8085662  | NPQR-DK-G18-Q6  |
|   | 5.3 mm       |                              | For tubing outside diameter of 8 mm  | 8085663  | NPQR-DK-G18-Q8  |
|   |              |                              | For tubing outside diameter of 10 mm | 8087695  | NPQR-DK-G18-Q10 |