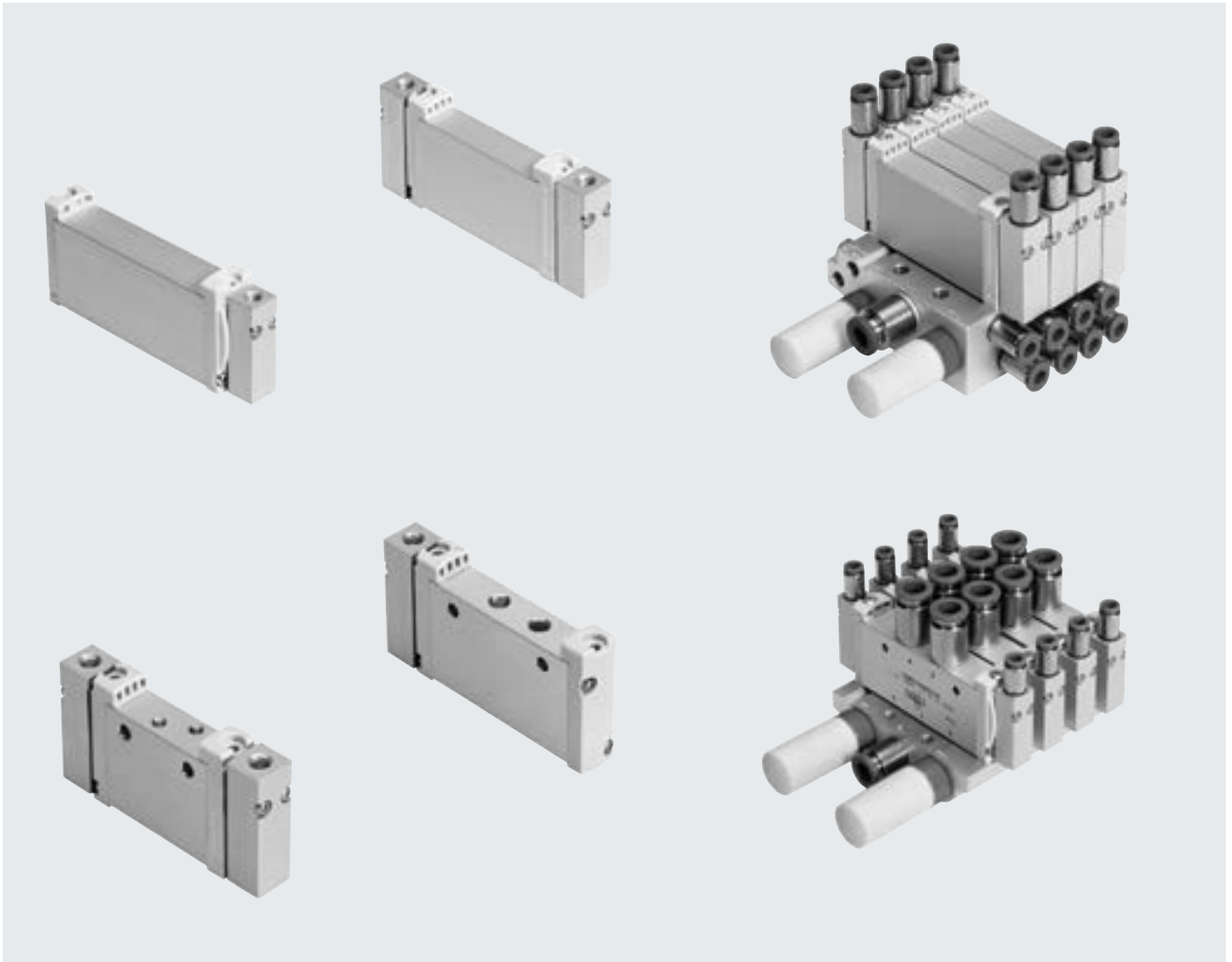


## Pneumatic valves VUWG

**FESTO**



## Key features



### Innovative

- Various connection sizes (M3, M5, M7, G1/8, G1/4)
- Max. pressure 10 bar
- 2x3/2-way valve in one valve housing

### Versatile

- Wide range of valve functions
- In-line valves can be used as individual valves or manifold valves
- M5/M7 in-line valves can be mixed on one manifold rail
- Identical sub-base valves for M5 or M7 manifold rail
- Manifolds with pressure zones
- Choice of quick push-in connections

### Reliable

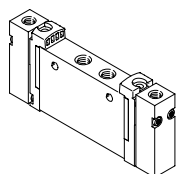
- Sturdy and durable metal components
  - Valves
  - Manifold rails
- Reliable servicing thanks to valves that can be replaced quickly and easily

### Easy to mount

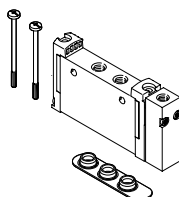
- Secure mounting on wall or H-rail
- Easy mounting thanks to captive screws and seals

## Key features – Pneumatic components

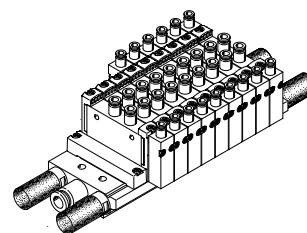
### Individual valves and valve manifold assemblies



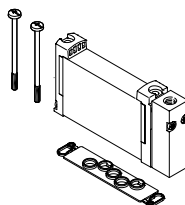
VUWG-L in-line valve as individual valve



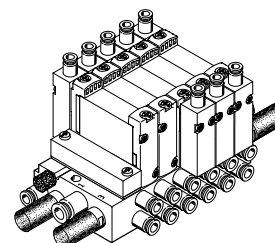
VUWG-S in-line valve for manifold assembly



VUWG-S valve manifold assembly consisting of in-line valves

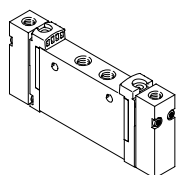


VUWG-B sub-base valve for manifold assembly



VUWG-B valve manifold assembly consisting of sub-base valves

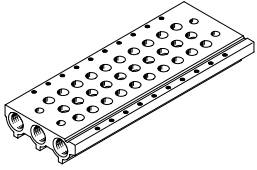
### VUWG basic valves



- Width 10, 14 and 18 mm
- 2x 3/2-way, 5/2-way and 5/3-way valves
- In-line valves
- Sub-base valves

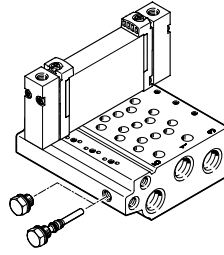
## Key features – Pneumatic components

### Manifold rail for in-line valves




- For in-line valves M3, M5, M7, G1/8 and G1/4, width 10/14/18
- For 2x 3/2-way, 5/2-way and 5/3-way valves
- 2 to 10 and 12, 14, 16 valve positions

### Manifold rail for sub-base valves



- For sub-base valves 10A, 10, 14 and 18, width 10/14/18
- Manifold rail with M3, M5/M7, G1/8 and G1/4 working ports
- For 2x 3/2-way, 5/2-way and 5/3-way valves
- 2 to 10, 12, 14 and 16 valve positions
- The sub-base valves are supplied with pilot air for the pneumatic spring via the manifold rail. A short (for internal pneumatic spring supply) and long (for external pneumatic spring supply) blanking plug are included with the manifold rail for this purpose.

 **Note**

Duct 84 must not be sealed by a blanking plug when connecting a sub-base valve.

### Cover plate for vacant position



For covering vacant valve positions

### Supply plate



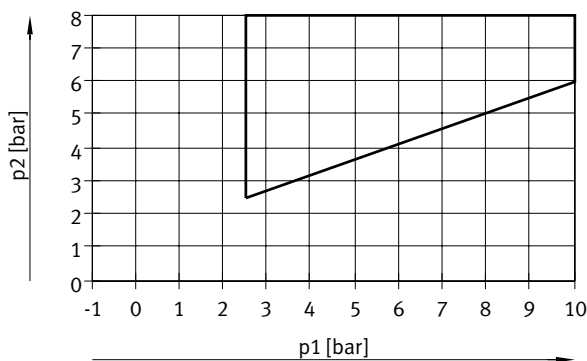
For additional air supply and exhaust via a valve position

### Separator for pressure zones




For creating multiple pressure zones

### Pilot pressure p<sub>2</sub> as a function of operating pressure p<sub>1</sub>



This graph applies to the 2x3/2-way valves and 5/2-way monostable valves with pneumatic spring:

- T32CA, T32UA, T32HA
- M52A, M52R

 **Note**

The compressed air for the pneumatic springs is supplied from port 1 (operating pressure). To ensure the valve switches reliably, the minimum pressure as per the graph must always be adhered to for the pilot pressure.

## Key features – Pneumatic components

### Creating pressure zones and separating exhaust air

Compressed air is supplied and exhausted via the manifold rail and supply plates. The position of the supply plates and duct separations can be freely selected with the VUWG.

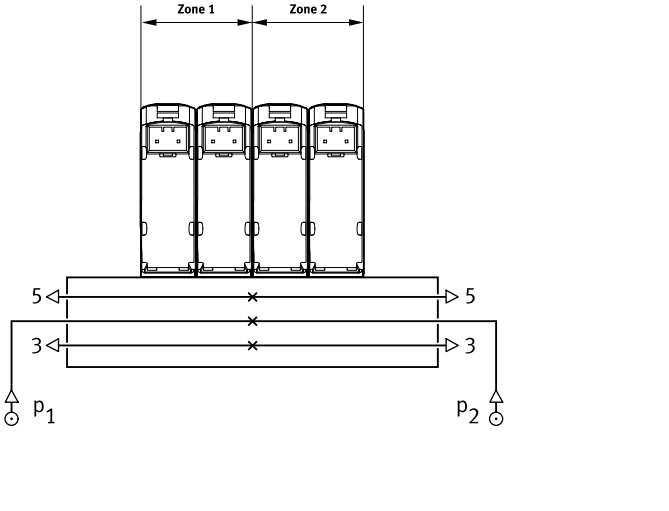
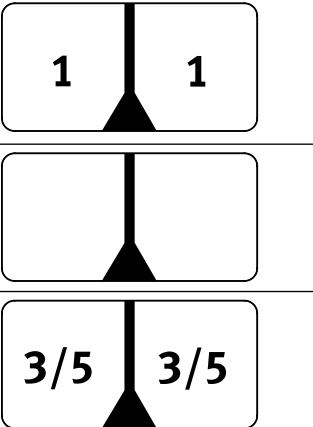
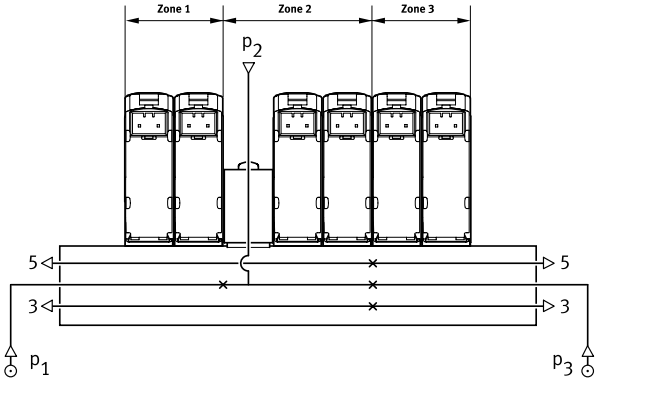
Pressure zones are created by isolating the internal supply ducts between the manifold sub-bases by appropriate duct separation.

Pressure zone separation can be used for the following ducts:

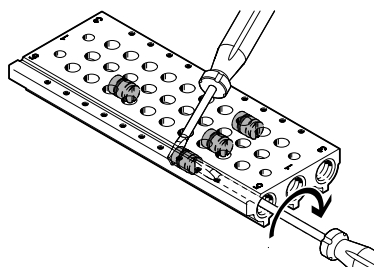
- Duct 1
- Duct 3
- Duct 5

**Note**

- Use separators if the exhaust air pressures are high
- Use at least one supply plate/air supply for each pressure zone

| Duct separation   | Description  | Symbol   |
|---|--|--|
|   | <p>The pressure zones can be freely configured with the VUWG. The following duct separations are possible:</p> <ul style="list-style-type: none"> <li>• Duct 1 closed</li> <li>• Duct 1/3/5 closed</li> <li>• Duct 3/5 closed</li> </ul> |  |
|  | <p>The number of pressure zones with the VUWG is only limited by the number of valve positions on the manifold rail. Note that each supply plate occupies one valve position.</p>  |  |

### Separator VABD

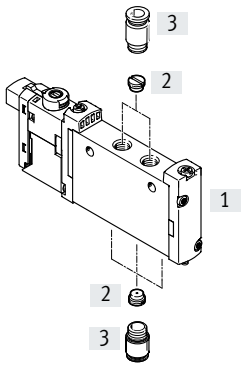


**Note**

As the separators are fitted from only one side using a slotted screwdriver, several pressure zones can be created in one profile.

## Key features – Pneumatic components

### Flow control valve



- [1] Valve
- [2] Flow control valve
- [3] Fitting

Flow control valve can be fitted in port 1, 3/5 and/or in port 2/4.

### Operation with different pressures

#### Vacuum operation

The following points need to be observed with vacuum operation:

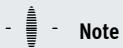
- M52 in-line valves with pneumatic spring and pneumatic/mechanical spring return (vacuum only at 3/5)
- T32 valves with pneumatic spring return (vacuum only at 3/5)

If external pilot air via duct 14 is used, M52 sub-base valves (B) can be used without restriction.

The remaining valve types can be used without restriction for vacuum.

#### Reverse operation

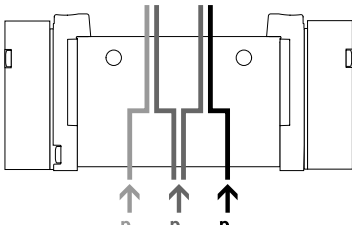
The valves with pneumatic spring are not suitable for reverse operation, since at least the minimum pilot pressure must be present in duct 1.



**Note**

Pressure must be present at port 1.

#### Pressure divider (internal pilot air)



- If two different pressures are required.

- Different pressures can be supplied at duct 1, 3 and 5.

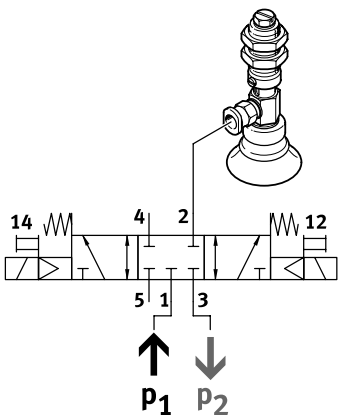


**Note**

- With internal pilot air, adhere to the minimum pilot pressure in duct 1
- With 2x 3/2-way valves without spring return, adhere to the minimum pilot pressure in duct 1

Any pressure or vacuum can be connected at duct 3 and 5 both with external and internal pilot air.

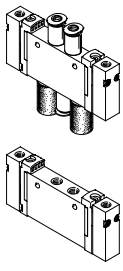
#### Vacuum, ejector pulse and normal position

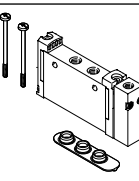


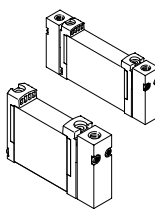
Vacuum, ejector pulse and normal position with internal pilot air can be realised

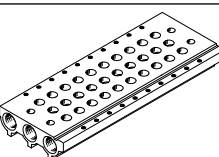
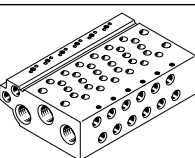
by connecting vacuum at duct 3 and pressure for the ejector pulse at duct 1.

Product range overview

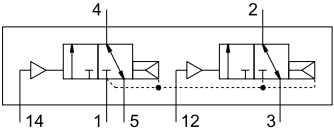
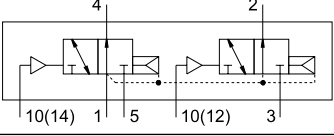
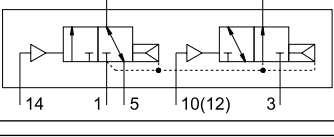
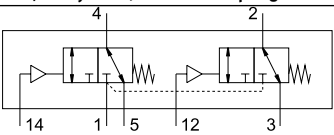
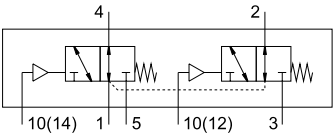
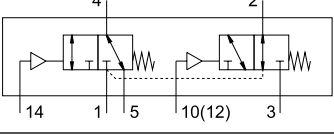
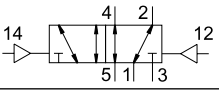
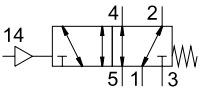
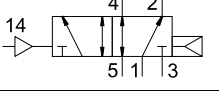
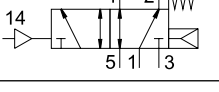
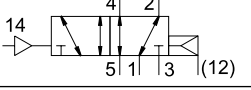
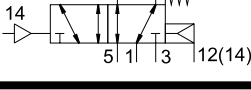
| Design  | Working port | Valve code | Functions and flow rate [l/min] |      |      |        |        |        |     |       |     |      |      |      | → Page/<br>Internet |
|---|--------------|------------|---------------------------------|------|------|--------|--------|--------|-----|-------|-----|------|------|------|---------------------|
|   |              |            | T32C                            | T32U | T32H | T32C/M | T32U/M | T32H/M | M52 | M52/M | B52 | P53C | P53U | P53E |                     |
| <b>In-line valve as individual valve, VUWG-L</b>                                  |              |            |                                 |      |      |        |        |        |     |       |     |      |      |      |                     |
|  | M3           | 10A        | -                               | -    | -    | -      | -      | -      | ■   | ■     | ■   | ■    | ■    | ■    | 13                  |
|   | M5           | 10         | ■                               | ■    | ■    | ■      | ■      | ■      | ■   | ■     | ■   | ■    | ■    | ■    | 17                  |
|   | M7           | 10         | ■                               | ■    | ■    | ■      | ■      | ■      | ■   | ■     | ■   | ■    | ■    | ■    | 17                  |
|   | G1/8         | 14         | ■                               | ■    | ■    | ■      | ■      | ■      | ■   | ■     | ■   | ■    | ■    | ■    | 26                  |
|   | G1/4         | 18         | ■                               | ■    | ■    | ■      | ■      | ■      | ■   | ■     | ■   | ■    | ■    | ■    | 32                  |

|   |      |     |   |   |   |   |   |   |   |   |   |   |   |   |    |
|---|------|-----|---|---|---|---|---|---|---|---|---|---|---|---|----|
| <b>In-line valve for manifold assembly, VUWG-S</b>                                |      |     |   |   |   |   |   |   |   |   |   |   |   |   |    |
|  | M3   | 10A | - | - | - | - | - | - | ■ | ■ | ■ | ■ | ■ | ■ | 15 |
|   | M5   | 10  | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | 23 |
|   | M7   | 10  | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | 23 |
|   | G1/8 | 14  | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | 29 |
|   | G1/4 | 18  | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | 35 |

| Design  | Working port | Type code | Functions and flow rate [l/min] |      |      |        |        |        |     |       |     |      |      |      | → Page/<br>Internet |
|---|--------------|-----------|---------------------------------|------|------|--------|--------|--------|-----|-------|-----|------|------|------|---------------------|
|   |              |           | T32C                            | T32U | T32H | T32C/M | T32U/M | T32H/M | M52 | M52/M | B52 | P53C | P53U | P53E |                     |
| <b>Sub-base valve, VUWG-B</b>   |              |           |                                 |      |      |        |        |        |     |       |     |      |      |      |                     |
|  | -            | 10A       | -                               | -    | -    | -      | -      | -      | ■   | ■     | ■   | ■    | ■    | ■    | 37                  |
|   | -            | 10        | ■                               | ■    | ■    | ■      | ■      | ■      | ■   | ■     | ■   | ■    | ■    | ■    | 41                  |
|   | -            | 10        | ■                               | ■    | ■    | ■      | ■      | ■      | ■   | ■     | ■   | ■    | ■    | ■    | 41                  |
|   | -            | 14        | ■                               | ■    | ■    | ■      | ■      | ■      | ■   | ■     | ■   | ■    | ■    | ■    | 45                  |
|   | -            | 18        | ■                               | ■    | ■    | ■      | ■      | ■      | ■   | ■     | ■   | ■    | ■    | ■    | 49                  |

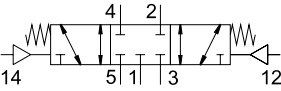
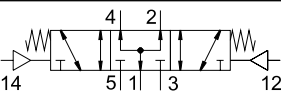
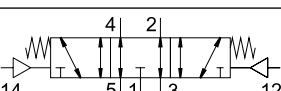
| Design  | Working port | Type code | Description                       | → Page/<br>Internet |
|---|--------------|-----------|-----------------------------------|---------------------|
| <b>Manifold rail VABM- ... -S- ..., for in-line valves (manifold assembly)</b>      |              |           |                                   |                     |
|  | -            | -         | Valve size M3, M5, M7, G1/8, G1/4 | vabm                |
| <b>Manifold rail VABM, for sub-base valves</b>                                      |              |           |                                   |                     |
|  | -            | 10AW      | Connection size M3                | vabm                |
|   | -            | 10W       | Connection size M5                |                     |
|   | -            | 10HW      | Connection size M7                |                     |
|   | -            | 14W       | Connection size G1/8              |                     |
|   | -            | 18W       | Connection size G1/4              |                     |

Overview of valve functions

| Valve  | Valve code | Description  | Valve terminal/<br>position function<br>order code | Size |       |      |      |
|--|------------|--|--|------|-------|------|------|
|  |            |  |  | M3   | M5/M7 | G1/8 | G1/4 |
| <b>2x 3/2-way valve, pneumatic spring</b>  |            |  |  |      |       |      |      |
|    | T32C-A     | <ul style="list-style-type: none"> <li>• Normally closed</li> <li>• Pneumatic spring return</li> </ul>                                 | K  | -    | ■     | ■    | ■    |
|    | T32U-A     | <ul style="list-style-type: none"> <li>• Normally open</li> <li>• Pneumatic spring return</li> </ul>                                   | N  | -    | ■     | ■    | ■    |
|    | T32H-A     | <ul style="list-style-type: none"> <li>• 1x normally open</li> <li>• 1x normally closed</li> <li>• Pneumatic spring return</li> </ul>  | H  | -    | ■     | ■    | ■    |
| <b>2x 3/2-way valve, mechanical spring</b>   |            |  |  |      |       |      |      |
|    | T32C-M     | <ul style="list-style-type: none"> <li>• Normally closed</li> <li>• Mechanical spring return</li> </ul>                                | VK   | -    | ■     | ■    | ■    |
|  | T32U-M     | <ul style="list-style-type: none"> <li>• Normally open</li> <li>• Mechanical spring return</li> </ul>                                  | VN   | -    | ■     | ■    | ■    |
|  | T32H-M     | <ul style="list-style-type: none"> <li>• 1x normally open</li> <li>• 1x normally closed</li> <li>• Mechanical spring return</li> </ul> | VH   | -    | ■     | ■    | ■    |
| <b>5/2-way bistable valve</b>  |            |  |  |      |       |      |      |
|  | B52        | -  | J  | ■    | ■     | ■    | ■    |
| <b>5/2-way monostable valve</b>  |            |  |  |      |       |      |      |
|  | M52-M      | <ul style="list-style-type: none"> <li>• Mechanical spring return</li> </ul>   | A  | ■    | ■     | ■    | ■    |
|  | M52-A      | <ul style="list-style-type: none"> <li>• In-line valve</li> <li>• Pneumatic spring return</li> </ul>                                   | M  | -    | -     | ■    | -    |
|  | M52-R      | <ul style="list-style-type: none"> <li>• In-line valve</li> <li>• Pneumatic/mechanical spring return</li> </ul>                        | P  | ■    | ■     | -    | ■    |
| <b>5/2-way monostable valve, sub-base valve</b>                                    |            |  |  |      |       |      |      |
|  | M52-A      | <ul style="list-style-type: none"> <li>• Pneumatic spring return</li> </ul>  | M  | -    | -     | ■    | -    |
|  | M52-R      | <ul style="list-style-type: none"> <li>• Pneumatic/mechanical spring return</li> </ul>   | P  | ■    | ■     | -    | ■    |

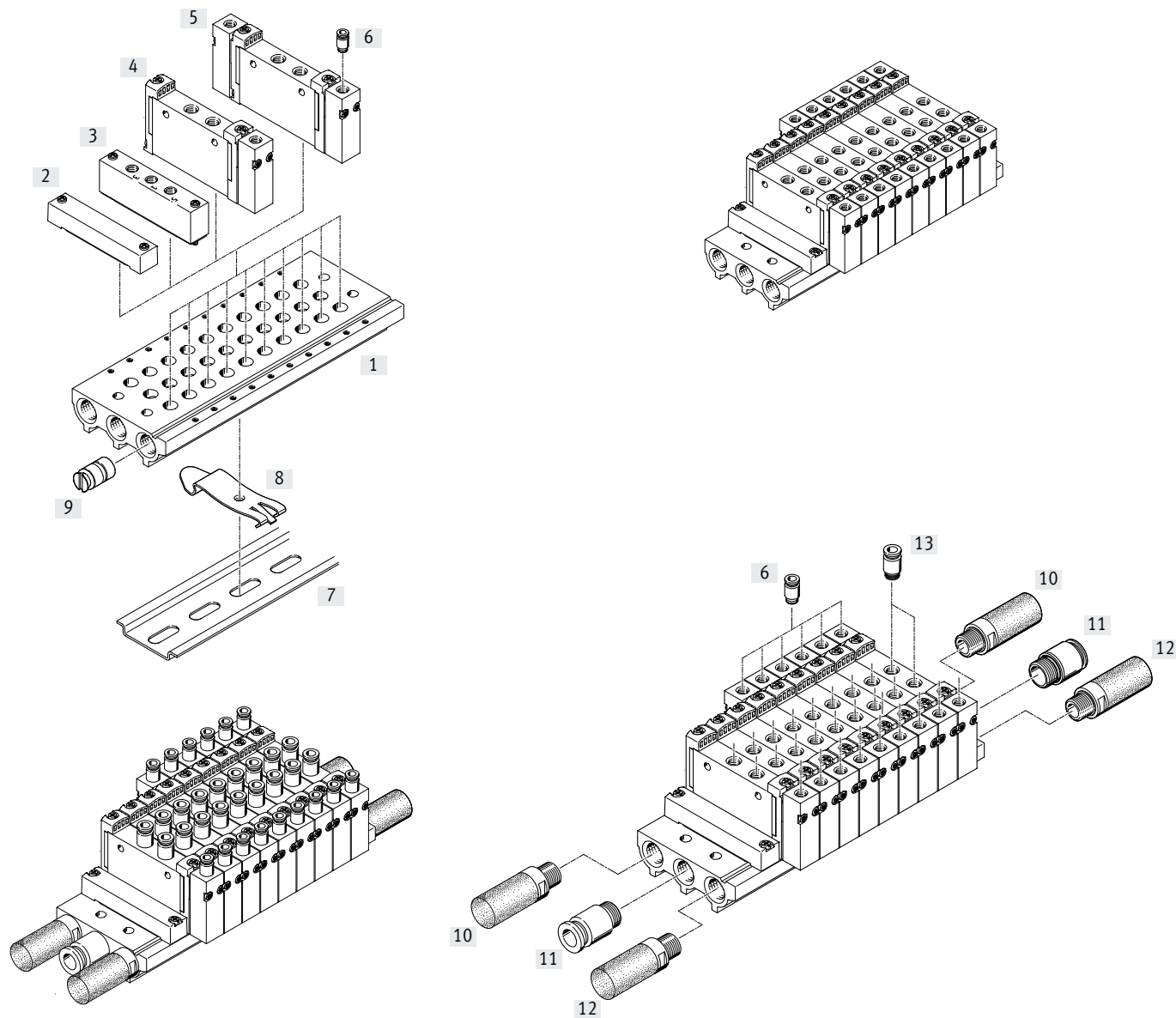


## Overview of valve functions

| Valve   | Valve code | Description  | Valve terminal/<br>position function<br>order code | Size |       |      |      |
|---|------------|--|--|------|-------|------|------|
|   |            |  |  | M3   | M5/M7 | G1/8 | G1/4 |
| <b>5/3-way valve</b>  |            |  |  |      |       |      |      |
|  | P53C       | <ul style="list-style-type: none"> <li>• Mid-position closed</li> <li>• Mechanical spring return</li> </ul>      | G  | ■    | ■     | ■    | ■    |
|  | P53U       | <ul style="list-style-type: none"> <li>• Mid-position pressurised</li> <li>• Mechanical spring return</li> </ul> | B  | ■    | ■     | ■    | ■    |
|  | P53E       | <ul style="list-style-type: none"> <li>• Mid-position exhausted</li> <li>• Mechanical spring return</li> </ul>   | E  | ■    | ■     | ■    | ■    |

Sample system overview – VUWG-L10 and VUWG-S10, in-line valves M5/M7

Manifold assembly

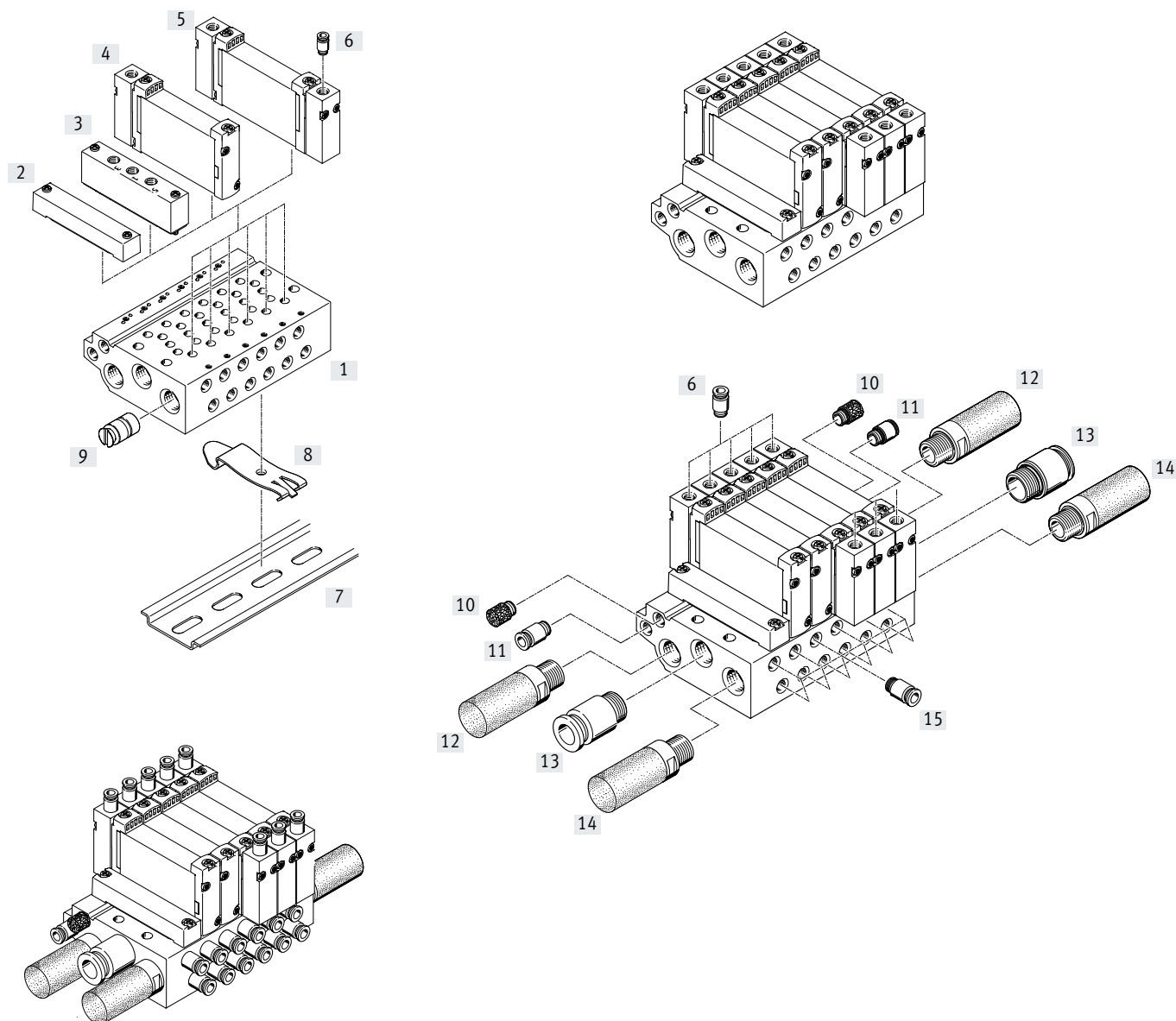


Manifold assembly and accessories

|      | Type            | Brief description | → Page/Internet   |    |
|------|-----------------|-------------------|---|----|
| [1]  | Manifold rail   | VABM-L1-10S-G18   | For 2 to 10, 12, 14 and 16 valve positions                    | 24 |
| [2]  | Cover plate     | VABB-L1-10-S      | For covering a vacant position                                | 25 |
| [3]  | Supply plate    | VABF-L1-10-P3A4   | For air supply at port 1 and ports 3 and 5                    | 25 |
| [4]  | Pneumatic valve | VUWG              | Pneumatic valve, monostable                                   | 17 |
| [5]  | Pneumatic valve | VUWG              | Pneumatic valve, bistable                                     | 17 |
| [6]  | Push-in fitting | QS                | For adapter plate for port 12 or 14                           | 53 |
| [7]  | H-rail          | NRH-35-2000       | For mounting the valve manifold assembly                      | 54 |
| [8]  | H-rail mounting | VAME-T-M4         | 2 pieces for fitting the valve manifold assembly on an H-rail | 54 |
| [9]  | Separator       | VABD-8-B          | For creating pressure zones                                   | 25 |
| [10] | Silencer        | U                 | For port 3  | 53 |
| [11] | Push-in fitting | QS                | For port 1  | 53 |
| [12] | Silencer        | U                 | For port 5  | 53 |
| [13] | Push-in fitting | QS                | For port 2 and 4  | 53 |

## Sample system overview – VUWG-B10, sub-base valves

## Manifold assembly



## Manifold assembly and accessories

|      | Type            | Brief description  | → Page/Internet                                       |    |
|------|-----------------|--------------------|---|----|
| [1]  | Manifold rail   | VABM-L1-10W-G18    | For 2 to 10, 12, 14 and 16 valve positions            | 44 |
| [2]  | Cover plate     | VABB-L1-10-W       | For covering a vacant position                        | 44 |
| [3]  | Supply plate    | VABF-L1-10-P3A4-M5 | For air supply at port 1 and ports 3 and 5            | 44 |
| [4]  | Pneumatic valve | VUWG               | Pneumatic valve, monostable                           | 41 |
| [5]  | Pneumatic valve | VUWG               | Pneumatic valve, bistable                             | 41 |
| [6]  | Push-in fitting | QS                 | For adapter plate for port 12 or 14                   | 53 |
| [7]  | H-rail          | NRH-35-2000        | For mounting the valve manifold assembly              | 54 |
| [8]  | H-rail mounting | VAME-T-M4          | 2 pieces for fitting the valve manifold on the H-rail | 54 |
| [9]  | Separator       | VABD-6-B           | For creating pressure zones                           | 44 |
| [10] | Silencer        | U                  | For port 84   | 53 |
| [11] | Push-in fitting | QS                 | For port 14   | 53 |
| [12] | Silencer        | U                  | For port 5  | 53 |
| [13] | Push-in fitting | QS                 | For port 1  | 53 |
| [14] | Silencer        | U                  | For port 3  | 53 |
| [15] | Push-in fitting | QS                 | For port 2 and 4                                      | 53 |

## Type codes – Pneumatic valves VUWG


|             |   |  |
|-------------|---|--|
| <b>001</b>  | <b>Series</b>   |  |
| <b>VUWG</b> | Pneumatic valve   |  |
| <b>002</b>  | <b>Directional control valve type</b>                     |  |
| <b>L</b>    | In-line valve   |  |
| <b>S</b>    | Semi-inline valve   |  |
| <b>B</b>    | Sub-base valve  |  |
| <b>003</b>  | <b>Size</b>   |  |
| <b>10A</b>  | Size 10, deviating flow                                   |  |
| <b>10</b>   | Size 10   |  |
| <b>14</b>   | Size 14   |  |
| <b>18</b>   | Size 18   |  |
| <b>004</b>  | <b>Valve function</b>                                     |  |
| <b>T32U</b> | 2x3/2-way valve, normally open                            |  |
| <b>T32C</b> | 2x3/2-way valve, normally closed                          |  |
| <b>T32H</b> | 2x3/2-way valve, 1x normally closed, 1x normally open     |  |
| <b>M52</b>  | 5/2-way valve, monostable                                 |  |
| <b>B52</b>  | 5/2-way valve, bistable                                   |  |
| <b>P53U</b> | 5/3-way valve, mid-position pressurised                   |  |
| <b>P53E</b> | 5/3-way valve, mid-position exhausted                     |  |
| <b>P53C</b> | 5/3-way valve, mid-position closed                        |  |
| <b>005</b>  | <b>Reset method for monostable/single solenoid valves</b> |  |
|             | None  |  |
| <b>A</b>    | Pneumatic spring  |  |
| <b>E</b>    | Pneumatic spring, external                                |  |
| <b>M</b>    | Mechanical spring   |  |
| <b>R</b>    | Mixed, pneumatic/mechanical spring                        |  |
| <b>X</b>    | Mixed, pneumatic/mechanical spring, external              |  |

|              |   |  |
|--------------|---|--|
| <b>006</b>   | <b>Pneumatic connection</b>                       |  |
| <b>F</b>     | Flange/sub-base                                   |  |
| <b>M3</b>    | M3  |  |
| <b>M5</b>    | M5  |  |
| <b>M7</b>    | M7  |  |
| <b>G18</b>   | G1/8  |  |
| <b>G14</b>   | G1/4  |  |
| <b>Q3</b>    | Push-in connector 3 mm                            |  |
| <b>Q4</b>    | Push-in connector 4 mm                            |  |
| <b>Q4H</b>   | Push-in connector 4 mm, with connecting thread M7 |  |
| <b>Q6</b>    | Push-in connector 6 mm                            |  |
| <b>Q6H</b>   | Push-in connector 6 mm, with connecting thread M7 |  |
| <b>Q8</b>    | Push-in connector 8 mm                            |  |
| <b>Q10</b>   | Push-in connector 10 mm                           |  |
| <b>T18</b>   | Push-in connector 1/8"                            |  |
| <b>T532</b>  | Push-in connector 5/32"                           |  |
| <b>T316</b>  | Push-in connector 3/16"                           |  |
| <b>T316H</b> | Push-in connector for 3/16", M7                   |  |
| <b>T14</b>   | Push-in connector 1/4"                            |  |
| <b>T14H</b>  | Push-in connector for 1/4", M7                    |  |
| <b>T38</b>   | Push-in connector 3/8"                            |  |
| <b>T516</b>  | Push-in connector 5/16"                           |  |
| <b>007</b>   | <b>Exhaust</b>                                    |  |
|              | No fitting  |  |
| <b>QN</b>    | With fitting                                      |  |
| <b>U</b>     | Silencer  |  |

## Data sheet

Function  
5/2-way, monostable  
5/2-way, bistable  
5/3C, 5/3U, 5/3E

-  - Width 10 mm

-  - Flow rate  
80 ... 100 l/min



| General technical data                       |                         | M52-R  | B52        | M52-M      | P53             |                 |                       |
|--|-------------------------|--|------------|------------|-----------------|-----------------|-----------------------|
| Valve function                               |                         |  |            |            | C <sup>1)</sup> | U <sup>2)</sup> | E <sup>3)</sup>       |
| Normal position                              |                         | -  | -          | -          |                 |                 |                       |
| Pneumatic spring return                      |                         | Yes <sup>4)</sup>  | -          | No         | No              |                 |                       |
| Mechanical spring return                     |                         | Yes <sup>4)</sup>  | -          | Yes        | Yes             |                 |                       |
| Vacuum operation at port 1                   |                         | No   | Yes        | Yes        | Yes             |                 |                       |
| Vacuum operation at port 3/5                 |                         | Yes  |            |            |                 |                 |                       |
| Design                                       |                         | Piston spool   |            |            |                 |                 |                       |
| Lap  |                         | Overlap  |            |            |                 |                 | Indeterminate overlap |
| Sealing principle                            |                         | Soft   |            |            |                 |                 |                       |
| Actuation type                               |                         | Pneumatic  |            |            |                 |                 |                       |
| Type of control                              |                         | Direct   |            |            |                 |                 |                       |
| Flow direction                               |                         | Reversible with restrictions                                   | Reversible | Reversible | Reversible      | Reversible      | Reversible            |
| Exhaust air function                         |                         | Can be throttled   |            |            |                 |                 |                       |
| Type of mounting                             |                         | Optionally via through-holes <sup>6)</sup> or on manifold rail |            |            |                 |                 |                       |
| Mounting position                            |                         | Any  |            |            |                 |                 |                       |
| Standard nominal flow rate                   | [l/min]                 | 100  |            | 80         | 90              |                 |                       |
| Switching time on/off                        | [ms]                    | 5/11   | -          | 5/16       | 7/19            |                 |                       |
| Changeover time                              | [ms]                    | -  | 5          | -          | 9               |                 |                       |
| Width  | [mm]                    | 10   |            |            |                 |                 |                       |
| Connection                                   | 1, 2, 3, 4, 5<br>12, 14 | M3   |            |            |                 |                 |                       |
|  |                         | M5   |            |            |                 |                 |                       |
| Product weight                               | [g]                     | 37   | 40         | 34         | 40              |                 |                       |
| Corrosion resistance class CRC <sup>5)</sup> |                         | 2  |            |            |                 |                 |                       |

1) C = Normally closed

2) U = Normally open/mid-position pressurised

3) E = Normally exhausted

4) Combined reset method

5) Corrosion resistance class CRC 2 to Festo standard FN 940070

Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.

6) If several valves are to be screwed together via the through-holes to form a block, a minimum distance of 0.3 mm must be ensured by inserting spacers.

| Operating and environmental conditions |       | M52-R <sup>3)</sup>  | B52         | M52-M <sup>2)</sup> | P53         |  |
|--|-------|--|-------------|---------------------|-------------|--|
| Valve function                         |       |  |             |                     |             |  |
| Operating medium                       |       | Compressed air to ISO 8573-1:2010 [7:4:4]  |             |                     |             |  |
| Note on the operating/pilot medium     |       | Lubricated operation possible (in which case lubricated operation will always be required) |             |                     |             |  |
| Operating pressure                     | [bar] | 2.5 ... 10   | -0.9 ... 10 | -0.9 ... 8          | -0.9 ... 10 |  |
| Pilot pressure <sup>1)</sup>           | [bar] | 2.5 ... 10   | 1.5 ... 10  | 3 ... 10            |             |  |
| Ambient temperature                    | [°C]  | -5 ... +60   |             |                     |             |  |
| Temperature of medium                  | [°C]  | -5 ... +50   |             |                     |             |  |

1) Note operating pressure/pilot pressure graph → page 4

2) Mechanical spring

3) Mixed, pneumatic/mechanical spring

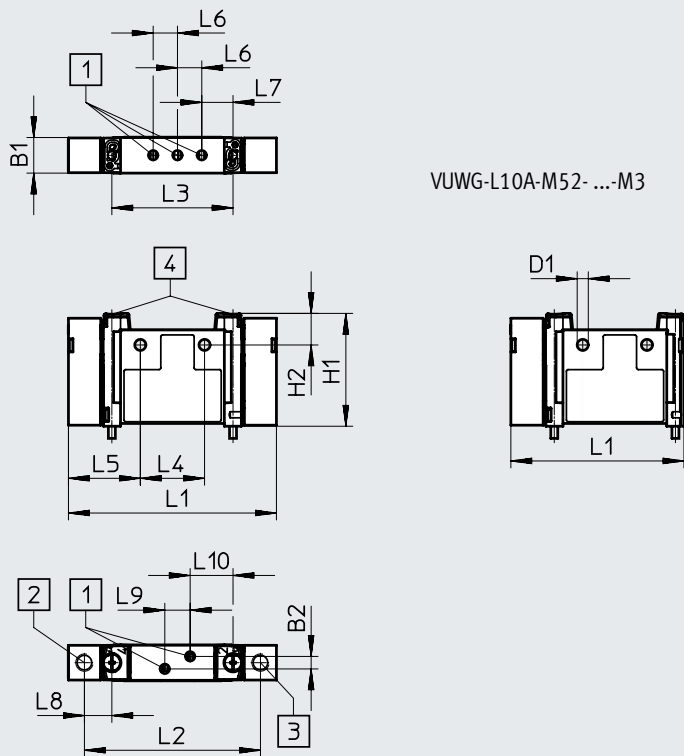
## Data sheet

| Information on materials |                    |
|--------------------------|--------------------|
| Housing                  | Anodised aluminium |
| Seals                    | HNBR, NBR          |
| Note on materials        | RoHS-compliant     |

### Dimensions

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

5/2-way and 5/3-way valve



[1] Ports 1, 2, 3, 4, 5: M3

[2] Port 14: M5

[3] Port 12: M5

[4] Retaining screw M2.5

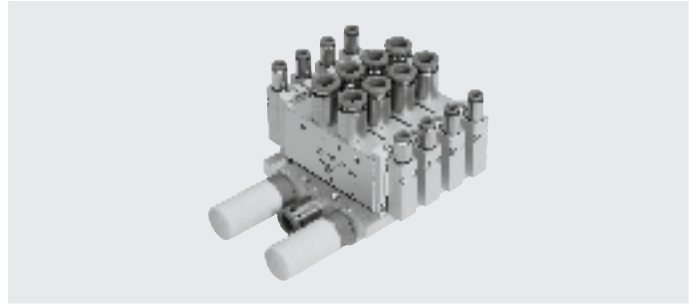
| Type              | B1   | B2  | D1 ø | H1   | H2  | L1   | L2   | L3   | L4   | L5   | L6 | L7 | L8  | L9  | L10  |
|-------------------|------|-----|------|------|-----|------|------|------|------|------|----|----|-----|-----|------|
| VUWG-L10A...      | 10.3 | 3.6 | 3.2  | 32.5 | 9.1 | 59.9 | 50.7 | 34.9 | 18.5 | 20.7 | 7  | 9  | 7.9 | 7.3 | 12.4 |
| VUWG-L10A-M52-... |      |     |      |      |     | 49.9 |      |      |      |      |    |    |     |     |      |

### Ordering data

| Description  | Part no. | Type               |
|--|----------|--------------------|
| <b>In-line valve M3</b>  |          |                    |
| <b>5/2-way monostable valve</b>                                      |          |                    |
| Pneumatic/mechanical spring return, internal pneumatic spring supply | 573795   | VUWG-L10A-M52-R-M3 |
| Mechanical spring return   | 574250   | VUWG-L10A-M52-M-M3 |
| <b>5/2-way bistable valve</b>  |          |                    |
| -  | 573796   | VUWG-L10A-B52-M3   |
| <b>5/3-way valve</b>   |          |                    |
| Mid-position closed, mechanical spring return                        | 573797   | VUWG-L10A-P53C-M3  |
| Mid-position exhausted, mechanical spring return                     | 573798   | VUWG-L10A-P53E-M3  |
| Mid-position pressurised, mechanical spring return                   | 573799   | VUWG-L10A-P53U-M3  |

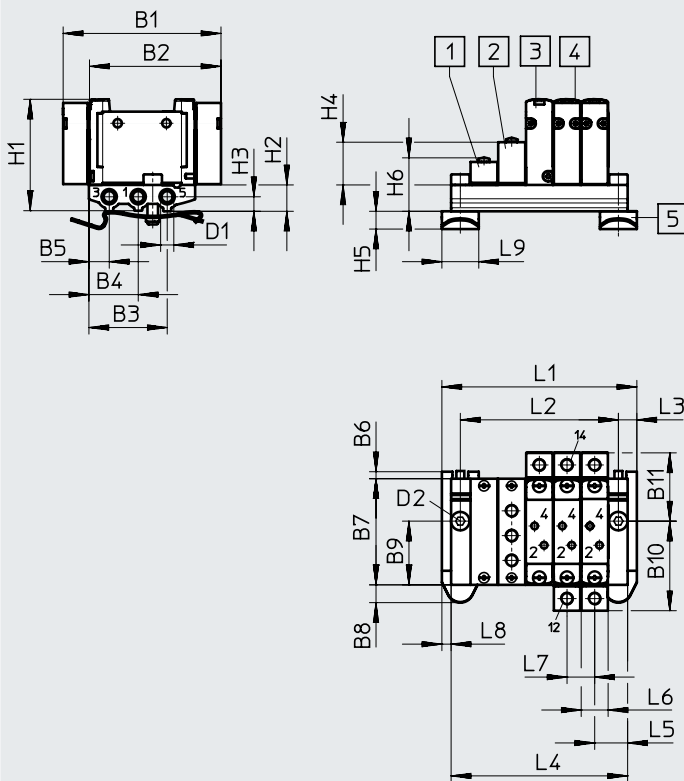
## Manifold assembly

In-line valves for manifold assembly



### Dimensions

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



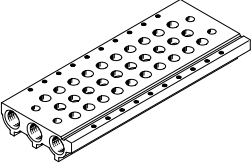
- [1] Cover plate  
VABB-L1-10A-S
- [2] Supply plate  
VABF-L1-10A-P3A4-M5
- [3] Pneumatic valve, monostable
- [4] Pneumatic valve, bistable
- [5] H-rail mounting (two M4x15 screws to DIN 912 are required for mounting)

| Type            | B1   | B2   | B3   | B4   | B5  | B6   | B7   | B8   | B9   | B10 | B11  | D1 |
|-----------------|------|------|------|------|-----|------|------|------|------|-----|------|----|
| VABM-L1-10AS-M5 | 59.9 | 49.9 | 29.7 | 18.7 | 7.7 | 2.95 | 40.3 | 6.75 | 24.2 | 34  | 25.9 | M5 |

| Type            | D2    | H1   | H2 | H3  | H4   | H5  | H6   | L3 | L5   | L6   | L7   | L8  | L9 |
|-----------------|-------|------|----|-----|------|-----|------|----|------|------|------|-----|----|
| VABM-L1-10AS-M5 | ∅ 4.5 | 42.5 | 10 | 5.5 | 16.2 | 6.8 | 20.3 | 7  | 12.5 | 10.3 | 10.5 | 3.5 | 14 |

| Valve positions | 2    | 3  | 4    | 5  | 6    | 7  | 8     | 9   | 10    | 12    | 14    | 16    |
|-----------------|------|----|------|----|------|----|-------|-----|-------|-------|-------|-------|
| L1 [mm]         | 42.5 | 53 | 63.5 | 74 | 84.5 | 95 | 105.5 | 116 | 126.5 | 147.5 | 168.5 | 189.5 |
| L2 [mm]         | 28.5 | 39 | 49.5 | 60 | 70.5 | 81 | 91.5  | 102 | 112.5 | 133.5 | 154.5 | 175.5 |
| L4 [mm]         | 35.5 | 46 | 56.5 | 67 | 77.5 | 88 | 98.5  | 109 | 119.5 | 140.5 | 161.5 | 182.5 |

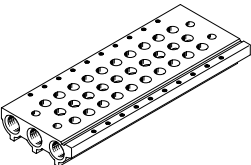
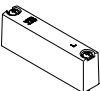

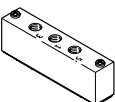

## Ordering data

| Technical data – Manifold rails  |                       |                   |                         |                             |  |        |      |
|--|-----------------------|-------------------|-------------------------|-----------------------------|--|--------|------|
|  | Connection<br>1, 3, 5 | CRC <sup>1)</sup> | Material <sup>2)</sup>  | Operating pressure<br>[bar] | Max. tightening torque for assembly [Nm] |        |      |
|  |                       |                   |                         |                             | Valve                                    | H-rail | Wall |
|  | M5                    | 2                 | Wrought aluminium alloy | -0.9 ... 10                 | 0.45                                     | 1.5    | 3    |

1) Corrosion resistance class CRC 2 to Festo standard FN 940070

Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.

2) Information on materials: RoHS-compliant

| Ordering data – Accessories   |   |  |          |                     |
|---|---|--|----------|---------------------|
|   | Description                             |  | Part no. | Type                |
| <b>Manifold rail for in-line valves (manifold assembly)</b>                                     |   |  |          |                     |
|                 | For valve size M3                       | 2 valve positions  | 566522   | VABM-L1-10AS-M5-2   |
|   |   | 3 valve positions  | 566523   | VABM-L1-10AS-M5-3   |
|   |   | 4 valve positions  | 566524   | VABM-L1-10AS-M5-4   |
|   |   | 5 valve positions  | 566525   | VABM-L1-10AS-M5-5   |
|   |   | 6 valve positions  | 566526   | VABM-L1-10AS-M5-6   |
|   |   | 7 valve positions  | 566527   | VABM-L1-10AS-M5-7   |
|   |   | 8 valve positions  | 566528   | VABM-L1-10AS-M5-8   |
|   |   | 9 valve positions  | 566529   | VABM-L1-10AS-M5-9   |
|   |   | 10 valve positions   | 566530   | VABM-L1-10AS-M5-10  |
|   |   | 12 valve positions   | 566531   | VABM-L1-10AS-M5-12  |
| 14 valve positions  | 566532                                  | VABM-L1-10AS-M5-14   |          |                     |
| 16 valve positions  | 566533                                  | VABM-L1-10AS-M5-16   |          |                     |
| <b>Cover plate</b> <span style="float: right;">Data sheets → Internet: vabb</span>              |   |  |          |                     |
|               | For manifold rail for M3 in-line valves | Incl. screws and seal                                      | 569986   | VABB-L1-10A         |
| <b>Separator</b> <span style="float: right;">Data sheets → Internet: vabd</span>                |   |  |          |                     |
|               | For manifold rail for M3 in-line valves | Separator for pressure zones                               | 570872   | VABD-4.2-B          |
| <b>Supply plate</b> <span style="float: right;">Data sheets → Internet: vabf</span>             |   |  |          |                     |
|               | For manifold rail for M3 in-line valves | Incl. screws and seal                                      | 569990   | VABF-L1-10A-P3A4-M5 |
| <b>Seals for in-line valves</b> <span style="float: right;">Data sheets → Internet: vabd</span> |   |  |          |                     |
|               | M3                                      | Delivery quantity: 10 sets (each with 2 screws and 1 seal) | 566670   | VABD-L1-10AX-S-M3   |



## Data sheet

## Function


2x3/2C, 2x3/2U, 2x3/2H

5/2-way, monostable

5/2-way, bistable

5/3C, 5/3U, 5/3E

 - Width 10 mm

 - Flow rate  
125 ... 220 l/min


| General technical data                       |  |                 |                 |                 |                 |                 |                              |            |            |                 |                       |                 |
|--|--|-----------------|-----------------|-----------------|-----------------|-----------------|------------------------------|------------|------------|-----------------|-----------------------|-----------------|
| Valve function                               | T32-A  |                 |                 | T32-M           |                 |                 | M52-R                        | B52        | M52-M      | P53             |                       |                 |
| Normal position                              | C <sup>1)</sup>  | U <sup>2)</sup> | H <sup>4)</sup> | C <sup>1)</sup> | U <sup>2)</sup> | H <sup>4)</sup> | -                            | -          | -          | C <sup>1)</sup> | U <sup>2)</sup>       | E <sup>3)</sup> |
| Pneumatic spring return                      | Yes  |                 |                 | No              |                 |                 | Yes <sup>5)</sup>            | -          | No         | No              |                       |                 |
| Mechanical spring return                     | No   |                 |                 | Yes             |                 |                 | Yes <sup>5)</sup>            | -          | Yes        | Yes             |                       |                 |
| Vacuum operation at port 1                   | No   |                 |                 | Yes             |                 |                 | No                           | Yes        |            |                 |                       |                 |
| Vacuum operation at port 3/5                 | Yes  |                 |                 |                 |                 |                 |                              |            |            |                 |                       |                 |
| Design                                       | Piston spool   |                 |                 |                 |                 |                 |                              |            |            |                 |                       |                 |
| Lap  | Overlap  |                 |                 |                 |                 |                 |                              |            |            |                 | Indeterminate overlap |                 |
| Sealing principle                            | Soft   |                 |                 |                 |                 |                 |                              |            |            |                 |                       |                 |
| Actuation type                               | Pneumatic  |                 |                 |                 |                 |                 |                              |            |            |                 |                       |                 |
| Type of control                              | Direct   |                 |                 |                 |                 |                 |                              |            |            |                 |                       |                 |
| Flow direction                               | Reversible with restrictions                                   |                 |                 | Reversible      |                 |                 | Reversible with restrictions | Reversible | Reversible | Reversible      |                       |                 |
| Exhaust air function                         | Can be throttled   |                 |                 |                 |                 |                 |                              |            |            |                 |                       |                 |
| Type of mounting                             | Optionally via through-holes <sup>7)</sup> or on manifold rail |                 |                 |                 |                 |                 |                              |            |            |                 |                       |                 |
| Mounting position                            | Any  |                 |                 |                 |                 |                 |                              |            |            |                 |                       |                 |
| Standard nominal flow rate                   | [l/min]  |                 |                 | 150             | 135             | 125             | 220                          |            | 190        | 210             |                       |                 |
| Switching time on/off                        | [ms]   |                 |                 | 4/9             | 6/7             |                 | 6/12                         | -          | 7/16       | 8/25            |                       |                 |
| Changeover time                              | [ms]   |                 |                 | -               |                 |                 |                              | 5          | -          | 11              |                       |                 |
| Width  | [mm]   |                 |                 | 10              |                 |                 |                              |            |            |                 |                       |                 |
| Connection                                   | 1, 2, 3, 4, 5  |                 |                 | M5              |                 |                 |                              |            |            |                 |                       |                 |
|  | 12, 14   |                 |                 | M5              |                 |                 |                              |            |            |                 |                       |                 |
| Product weight                               | [g]  |                 |                 | 48              | 51              |                 | 45                           | 48         | 41         | 48              |                       |                 |
| Corrosion resistance class CRC <sup>6)</sup> | 2  |                 |                 |                 |                 |                 |                              |            |            |                 |                       |                 |

1) C = Normally closed

2) U = Normally open/mid-position pressurised

3) E = Normally exhausted

4) H = 2x 3/2-way valve in one housing with 1x normally closed and 1x normally open

5) Combined reset method

6) Corrosion resistance class CRC 2 to Festo standard FN 940070

Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.

7) If several valves are to be screwed together via the through-holes to form a block, a minimum distance of 0.3 mm must be ensured by inserting spacers.

## Data sheet

| Operating and environmental conditions |  |                     |                     |                     |             |                     |             |
|--|--|---------------------|---------------------|---------------------|-------------|---------------------|-------------|
| Valve function                         |  | T32-A <sup>2)</sup> | T32-M <sup>3)</sup> | M52-R <sup>4)</sup> | B52         | M52-M <sup>3)</sup> | P53         |
| Operating medium                       | Compressed air to ISO 8573-1:2010 [7:4:4]  |                     |                     |                     |             |                     |             |
| Note on the operating/pilot medium     | Lubricated operation possible (in which case lubricated operation will always be required) |                     |                     |                     |             |                     |             |
| Operating pressure                     | [bar]  | 1.5 ... 10          | -0.9 ... 10         | 2.5 ... 10          | -0.9 ... 10 | -0.9 ... 8          | -0.9 ... 10 |
| Pilot pressure <sup>1)</sup>           | [bar]  | 1.5 ... 10          | 3 ... 10            | 2.5 ... 10          | 1.5 ... 10  | 3 ... 10            |             |
| Ambient temperature                    | [°C]   | -5 ... +60          |                     |                     |             |                     |             |
| Temperature of medium                  | [°C]   | -5 ... +50          |                     |                     |             |                     |             |

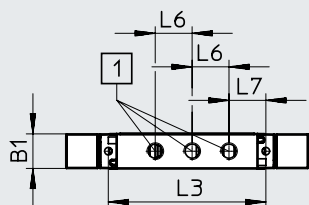
- 1) Note operating pressure/pilot pressure graph → page 4
- 2) Pneumatic spring
- 3) Mechanical spring
- 4) Mixed, pneumatic/mechanical spring

| Information on materials |                         |
|--------------------------|-------------------------|
| Housing                  | Wrought aluminium alloy |
| Seals                    | HNBR, NBR               |
| Note on materials        | RoHS-compliant          |

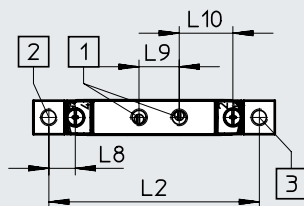
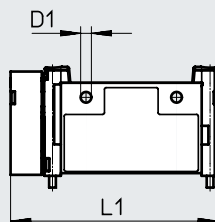
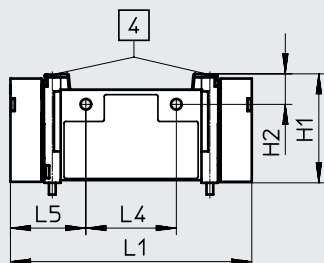
### Dimensions

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

2x3/2-way, 5/2-way and 5/3-way valve



VUWG-L10-M52-....



[1] Port 1, 2, 3, 4, 5: M5

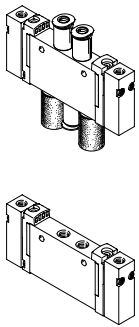
[2] Port 14: M5

[4] Retaining screw M2.5

[3] Port 12: M5



| Type             | B1   | D1 ø | H1   | H2  | L1 | L2   | L3 | L4 | L5   | L6 | L7 | L8  | L9 | L10 |
|------------------|------|------|------|-----|----|------|----|----|------|----|----|-----|----|-----|
| VUWG-L10-...     | 10.2 | 3.2  | 32.5 | 9.1 | 72 | 62.8 | 47 | 27 | 22.5 | 11 | 11 | 7.9 | 12 | 16  |
| VUWG-L10-M52-... |      |      |      |     | 62 |      |    |    |      |    |    |     |    |     |

## Ordering data

| Ordering data   | Description   | Part no.         | Type               |
|---|---|------------------|--------------------|
| <b>In-line valve M5</b>   |   |                  |                    |
|  | <b>2x3/2-way valve</b>  |                  |                    |
|   | Normally closed, pneumatic spring return, internal pneumatic spring supply                      | 573805           | VUWG-L10-T32C-A-M5 |
|   | Normally open, pneumatic spring return, internal pneumatic spring supply                        | 573806           | VUWG-L10-T32U-A-M5 |
|   | 1x normally open, 1x normally closed, pneumatic spring return, internal pneumatic spring supply | 573807           | VUWG-L10-T32H-A-M5 |
|   | Normally closed, mechanical spring return   | 574251           | VUWG-L10-T32C-M-M5 |
|   | Normally open, mechanical spring return   | 574252           | VUWG-L10-T32U-M-M5 |
|   | 1x normally open, 1x normally closed, mechanical spring return                                  | 574253           | VUWG-L10-T32H-M-M5 |
|   | <b>5/2-way monostable valve</b>   |                  |                    |
|   | pneumatic/mechanical spring return, internal pneumatic spring supply                            | 573808           | VUWG-L10-M52-R-M5  |
|   | Mechanical spring return  | 574254           | VUWG-L10-M52-M-M5  |
|   | <b>5/2-way bistable valve</b>   |                  |                    |
|   | –   | 573809           | VUWG-L10-B52-M5    |
|   | <b>5/3-way valve</b>  |                  |                    |
|   | Mid-position closed, mechanical spring return   | 573810           | VUWG-L10-P53C-M5   |
|   | Mid-position exhausted, mechanical spring return  | 573811           | VUWG-L10-P53E-M5   |
| Mid-position pressurised, mechanical spring return                                | 573812  | VUWG-L10-P53U-M5 |                    |

## Data sheet

Function  
 2x3/2C, 2x3/2U, 2x3/2H  
 5/2-way, monostable  
 5/2-way, bistable  
 5/3C, 5/3U, 5/3E

-  - Width 10 mm  
 -  - Flow rate  
 140 ... 380 l/min



| General technical data                       |  |                 |                 |                 |                 |                 |                              |            |            |                 |                       |                 |
|--|--|-----------------|-----------------|-----------------|-----------------|-----------------|------------------------------|------------|------------|-----------------|-----------------------|-----------------|
| Valve function                               | T32-A  |                 |                 | T32-M           |                 |                 | M52-R                        | B52        | M52-M      | P53             |                       |                 |
| Normal position                              | C <sup>1)</sup>  | U <sup>2)</sup> | H <sup>4)</sup> | C <sup>1)</sup> | U <sup>2)</sup> | H <sup>4)</sup> | -                            | -          | -          | C <sup>1)</sup> | U <sup>2)</sup>       | E <sup>3)</sup> |
| Pneumatic spring return                      | Yes  |                 |                 | No              |                 |                 | Yes <sup>5)</sup>            | -          | No         | No              |                       |                 |
| Mechanical spring return                     | No   |                 |                 | Yes             |                 |                 | Yes <sup>5)</sup>            | -          | Yes        | Yes             |                       |                 |
| Vacuum operation at port 1                   | No   |                 |                 | Yes             |                 |                 | No                           | Yes        |            |                 |                       |                 |
| Vacuum operation at port 3/5                 | Yes  |                 |                 |                 |                 |                 |                              |            |            |                 |                       |                 |
| Design                                       | Piston spool   |                 |                 |                 |                 |                 |                              |            |            |                 |                       |                 |
| Lap  | Overlap  |                 |                 |                 |                 |                 |                              |            |            |                 | Indeterminate overlap |                 |
| Sealing principle                            | Soft   |                 |                 |                 |                 |                 |                              |            |            |                 |                       |                 |
| Actuation type                               | Pneumatic  |                 |                 |                 |                 |                 |                              |            |            |                 |                       |                 |
| Type of control                              | Direct   |                 |                 |                 |                 |                 |                              |            |            |                 |                       |                 |
| Flow direction                               | Reversible with restrictions                                   |                 |                 | Reversible      |                 |                 | Reversible with restrictions | Reversible | Reversible | Reversible      |                       |                 |
| Exhaust air function                         | Can be throttled   |                 |                 |                 |                 |                 |                              |            |            |                 |                       |                 |
| Type of mounting                             | Optionally via through-holes <sup>7)</sup> or on manifold rail |                 |                 |                 |                 |                 |                              |            |            |                 |                       |                 |
| Mounting position                            | Any  |                 |                 |                 |                 |                 |                              |            |            |                 |                       |                 |
| Standard nominal flow rate                   | [l/min]  | 190             |                 | 150             | 140             |                 | 380                          |            | 320        |                 |                       |                 |
| Switching time on/off                        | [ms]   | 4/9             |                 | 6/7             |                 | 6/12            |                              | -          | 7/16       | 8/25            |                       |                 |
| Changeover time                              | [ms]   | -               |                 |                 |                 |                 |                              |            |            |                 |                       |                 |
| Width  | [mm]   | 10              |                 |                 |                 |                 |                              |            |            |                 |                       |                 |
| Connection                                   | 1, 2, 3, 4, 5  | M7              |                 |                 |                 |                 |                              |            |            |                 |                       |                 |
|  | 12, 14   | M5              |                 |                 |                 |                 |                              |            |            |                 |                       |                 |
| Product weight                               | [g]  | 48              |                 | 51              |                 | 45              |                              | 48         | 41         | 48              |                       |                 |
| Corrosion resistance class CRC <sup>6)</sup> | 2  |                 |                 |                 |                 |                 |                              |            |            |                 |                       |                 |

- 1) C = Normally closed
- 2) U = Normally open/mid-position pressurised
- 3) E = Normally exhausted
- 4) H = 2x 3/2-way valve in one housing with 1x normally closed and 1x normally open
- 5) Combined reset method
- 6) Corrosion resistance class CRC 2 to Festo standard FN 940070  
 Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.
- 7) If several valves are to be screwed together via the through-holes to form a block, a minimum distance of 0.3 mm must be ensured by inserting spacers.

## Data sheet

| Operating and environmental conditions |       | T32-A <sup>2)</sup>  | T32-M <sup>3)</sup> | M52-R <sup>4)</sup> | B52         | M52-M <sup>3)</sup> | P53         |
|--|-------|--|---------------------|---------------------|-------------|---------------------|-------------|
| Valve function                         |       |  |                     |                     |             |                     |             |
| Operating medium                       |       | Compressed air to ISO 8573-1:2010 [7:4:4]  |                     |                     |             |                     |             |
| Note on the operating/pilot medium     |       | Lubricated operation possible (in which case lubricated operation will always be required) |                     |                     |             |                     |             |
| Operating pressure                     | [bar] | 1.5 ... 10   | -0.9 ... 10         | 2.5 ... 10          | -0.9 ... 10 | -0.9 ... 8          | -0.9 ... 10 |
| Pilot pressure <sup>1)</sup>           | [bar] | 1.5 ... 10   | 3 ... 10            | 2.5 ... 10          | 1.5 ... 10  | 3 ... 10            |             |
| Ambient temperature                    | [°C]  | -5 ... +60   |                     |                     |             |                     |             |
| Temperature of medium                  | [°C]  | -5 ... +50   |                     |                     |             |                     |             |

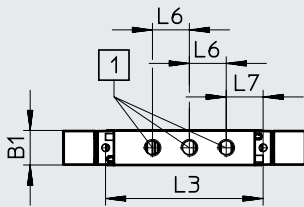
- 1) Note operating pressure/pilot pressure graph → page 4
- 2) Pneumatic spring
- 3) Mechanical spring
- 4) Mixed, pneumatic/mechanical spring

| Information on materials |                         |
|--------------------------|-------------------------|
| Housing                  | Wrought aluminium alloy |
| Seals                    | HNBR, NBR               |
| Note on materials        | RoHS-compliant          |

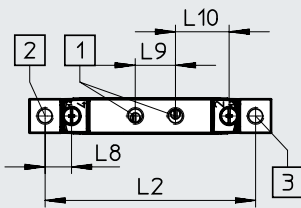
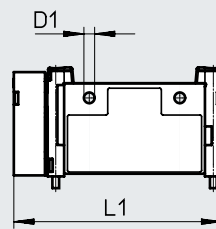
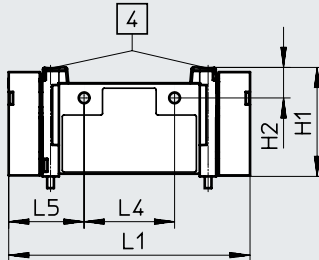
### Dimensions

2x3/2-way, 5/2-way and 5/3-way valve

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VUWG-L10-M52-...-...



[1] Port 1, 2, 3, 4, 5: M7

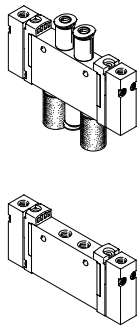
[2] Port 14: M5

[4] Retaining screw M2.5

[3] Port 12: M5

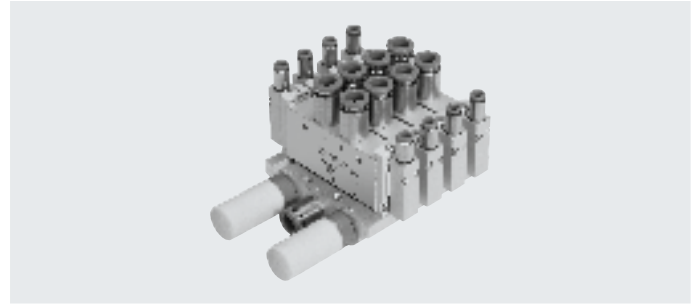
| Type             | B1   | D1 ø | H1   | H2  | L1 | L2   | L3 | L4 | L5   | L6 | L7 | L8  | L9 | L10 |
|------------------|------|------|------|-----|----|------|----|----|------|----|----|-----|----|-----|
| VUWG-L10-...     | 10.2 | 3.2  | 32.5 | 9.1 | 72 | 62.8 | 47 | 27 | 22.5 | 11 | 11 | 7.9 | 12 | 16  |
| VUWG-L10-M52-... |      |      |      |     | 62 |      |    |    |      |    |    |     |    |     |

## Ordering data

| Ordering data  | Description   | Part no.         | Type               |
|--|---|------------------|--------------------|
| <b>In-line valve M7</b>  |   |                  |                    |
|  | <b>2x3/2-way valve</b>  |                  |                    |
|  | Normally closed, pneumatic spring return, internal pneumatic spring supply                      | 573821           | VUWG-L10-T32C-A-M7 |
|  | Normally open, pneumatic spring return, internal pneumatic spring supply                        | 573822           | VUWG-L10-T32U-A-M7 |
|  | 1x normally open, 1x normally closed, pneumatic spring return, internal pneumatic spring supply | 573823           | VUWG-L10-T32H-A-M7 |
|  | Normally closed, mechanical spring return   | 574255           | VUWG-L10-T32C-M-M7 |
|  | Normally open, mechanical spring return   | 574256           | VUWG-L10-T32U-M-M7 |
|  | 1x normally open, 1x normally closed, mechanical spring return                                  | 574257           | VUWG-L10-T32H-M-M7 |
|  | <b>5/2-way monostable valve</b>   |                  |                    |
|  | Pneumatic/mechanical spring return, internal pneumatic spring supply                            | 573824           | VUWG-L10-M52-R-M7  |
|  | Mechanical spring return  | 574258           | VUWG-L10-M52-M-M7  |
|  | <b>5/2-way bistable valve</b>   |                  |                    |
|  | -   | 573825           | VUWG-L10-B52-M7    |
|  | <b>5/3-way valve</b>  |                  |                    |
|  | Mid-position closed, mechanical spring return   | 573826           | VUWG-L10-P53C-M7   |
|  | Mid-position exhausted, mechanical spring return  | 573827           | VUWG-L10-P53E-M7   |
| Mid-position pressurised, mechanical spring return                               | 573828  | VUWG-L10-P53U-M7 |                    |

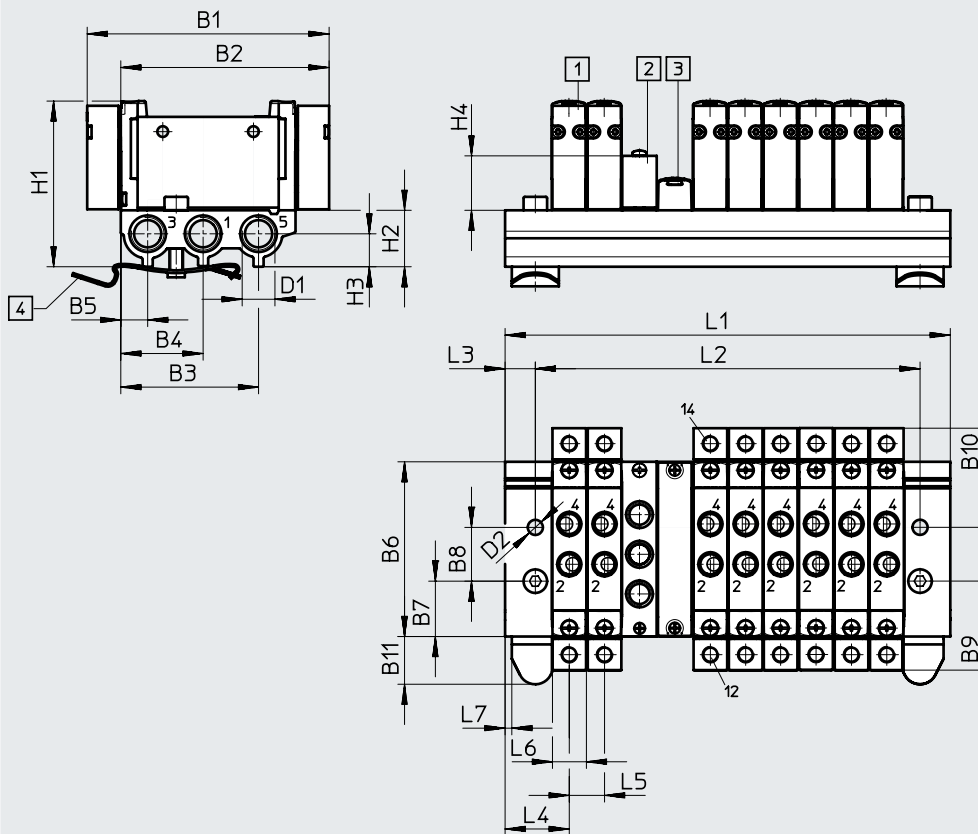
## Manifold assembly

In-line valves for manifold assembly



### Dimensions

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



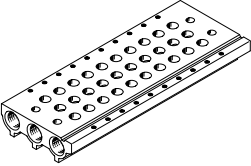
- [1] Pneumatic valve
- [2] Supply plate M5 or M7 for 1, 3, 5
- [3] Cover plate VABB-L1-10-S
- [4] H-rail mounting (two M4x20 screws to DIN 912 are required)

| Type            | B1 | B2 | B3 | B4   | B5 | B6 | B7   | B8 | B9   | B10  | B11   |
|-----------------|----|----|----|------|----|----|------|----|------|------|-------|
| VABM-L1-10S-G18 | 72 | 62 | 41 | 24.5 | 8  | 52 | 16.5 | 16 | 26.5 | 29.5 | 14.45 |

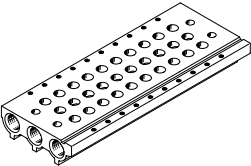
| Type            | D1   | D2  | H1   | H2   | H3 | H4   | H4   | L3 | L4 | L5   | L6   | L7 |
|-----------------|------|-----|------|------|----|------|------|----|----|------|------|----|
| VABM-L1-10S-G18 | G1/8 | 4.5 | 49.3 | 16.8 | 7  | 16.2 | 16.2 | 9  | 19 | 10.5 | 10.3 | 2  |

| Valve positions | 2    | 3  | 4    | 5  | 6    | 7   | 8     | 9   | 10    | 12    | 14    | 16    | 22    |
|-----------------|------|----|------|----|------|-----|-------|-----|-------|-------|-------|-------|-------|
| L1 [mm]         | 48.5 | 59 | 69.5 | 80 | 90.5 | 101 | 111.5 | 122 | 132.5 | 153.5 | 174.5 | 195.5 | 258.5 |
| L2 [mm]         | 30.5 | 41 | 51.5 | 62 | 72.5 | 83  | 93.5  | 104 | 114.5 | 135.5 | 156.5 | 177.5 | 240.5 |

## Ordering data

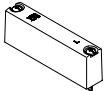

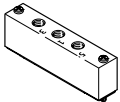

| Technical data – Manifold rails  | Connection<br>1, 3, 5 | CRC <sup>1)</sup> | Material <sup>2)</sup>  | Operating pressure<br>[bar] | Max. tightening torque for assembly [Nm] |        |      |
|--|-----------------------|-------------------|-------------------------|-----------------------------|--|--------|------|
|  |                       |                   |                         |                             | Valve                                    | H-rail | Wall |
|  | G1/8                  | 2                 | Wrought aluminium alloy | -0.9 ... 10                 | 0.45                                     | 1.5    | 3    |

- 1) Corrosion resistance class CRC 2 to Festo standard FN 940070  
Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.
- 2) Information on materials: RoHS-compliant

| Ordering data – Manifold rail  |                      | Description               | Part no.      | Type                      |
|--|----------------------|---------------------------|---------------|---------------------------|
| <b>Manifold rail for in-line valve (manifold assembly)</b>                       |                      |                           |               |                           |
|  | For valve size M5/M7 | 2 valve positions         | <b>566558</b> | <b>VABM-L1-10S-G18-2</b>  |
|  |                      | 3 valve positions         | <b>566559</b> | <b>VABM-L1-10S-G18-3</b>  |
|  |                      | 4 valve positions         | <b>566560</b> | <b>VABM-L1-10S-G18-4</b>  |
|  |                      | 5 valve positions         | <b>566561</b> | <b>VABM-L1-10S-G18-5</b>  |
|  |                      | 6 valve positions         | <b>566562</b> | <b>VABM-L1-10S-G18-6</b>  |
|  |                      | 7 valve positions         | <b>566563</b> | <b>VABM-L1-10S-G18-7</b>  |
|  |                      | 8 valve positions         | <b>566564</b> | <b>VABM-L1-10S-G18-8</b>  |
|  |                      | 9 valve positions         | <b>566565</b> | <b>VABM-L1-10S-G18-9</b>  |
|  |                      | 10 valve positions        | <b>566566</b> | <b>VABM-L1-10S-G18-10</b> |
|  |                      | 12 valve positions        | <b>566567</b> | <b>VABM-L1-10S-G18-12</b> |
| 14 valve positions   | <b>566568</b>        | <b>VABM-L1-10S-G18-14</b> |               |                           |
| 16 valve positions   | <b>566569</b>        | <b>VABM-L1-10S-G18-16</b> |               |                           |





## Ordering data

| Ordering data – Accessories   |  |  |               |                           |
|---|--|--|---------------|---------------------------|
|   | Description                                |  | Part no.      | Type                      |
| <b>Cover plate</b> <span style="float: right;">Data sheets → Internet: vabb</span>              |  |  |               |                           |
|                | For manifold rail for M5/M7 in-line valves | Incl. screws and seal                                      | <b>566462</b> | <b>VABB-L1-10-S</b>       |
| <b>Separator</b> <span style="float: right;">Data sheets → Internet: vabd</span>                |  |  |               |                           |
|                | For manifold rail for M5/M7 in-line valves | Separator for pressure zones                               | <b>569995</b> | <b>VABD-8-B</b>           |
| <b>Supply plate</b> <span style="float: right;">Data sheets → Internet: vabf</span>             |  |  |               |                           |
|                | For manifold rail for M5 in-line valves    | Incl. screws and seal                                      | <b>569991</b> | <b>VABF-L1-10-P3A4-M5</b> |
|   | For manifold rail for M7 in-line valves    |  | <b>569992</b> | <b>VABF-L1-10-P3A4-M7</b> |
| <b>Seals for in-line valves</b> <span style="float: right;">Data sheets → Internet: vabd</span> |  |  |               |                           |
|                | M5   | Delivery quantity: 10 sets (each with 2 screws and 1 seal) | <b>566672</b> | <b>VABD-L1-10X-S-M5</b>   |
|   | M7   |  | <b>566673</b> | <b>VABD-L1-10X-S-M7</b>   |

## Data sheet

Function  
 2x3/2C, 2x3/2U, 2x3/2H  
 5/2-way, monostable  
 5/2-way, bistable  
 5/3C, 5/3U, 5/3E

 - Width 14 mm  
 - Flow rate  
 500 ... 780 l/min



| General technical data                       |  |                 |                 |                 |                 |                 |                              |            |            |                 |                                 |
|--|--|-----------------|-----------------|-----------------|-----------------|-----------------|------------------------------|------------|------------|-----------------|---------------------------------|
| Valve function                               | T32-A  |                 |                 | T32-M           |                 |                 | M52-A                        | B52        | M52-M      | P53             |                                 |
| Normal position                              | C <sup>1)</sup>  | U <sup>2)</sup> | H <sup>4)</sup> | C <sup>1)</sup> | U <sup>2)</sup> | H <sup>4)</sup> | –                            | –          | –          | C <sup>1)</sup> | U <sup>2)</sup> E <sup>3)</sup> |
| Pneumatic spring return                      | Yes  |                 |                 | No              |                 |                 | Yes                          | –          | No         | No              |                                 |
| Mechanical spring return                     | No   |                 |                 | Yes             |                 |                 | No                           | –          | Yes        | Yes             |                                 |
| Vacuum operation at port 1                   | No   |                 |                 | Yes             |                 |                 | No                           | Yes        |            |                 |                                 |
| Vacuum operation at port 3/5                 | Yes  |                 |                 |                 |                 |                 |                              |            |            |                 |                                 |
| Design                                       | Piston spool   |                 |                 |                 |                 |                 |                              |            |            |                 |                                 |
| Lap  | Overlap  |                 |                 |                 |                 |                 |                              |            |            |                 |                                 |
| Sealing principle                            | Soft   |                 |                 |                 |                 |                 |                              |            |            |                 |                                 |
| Actuation type                               | Pneumatic  |                 |                 |                 |                 |                 |                              |            |            |                 |                                 |
| Type of control                              | Direct   |                 |                 |                 |                 |                 |                              |            |            |                 |                                 |
| Flow direction                               | Reversible with restrictions                                   |                 |                 | Reversible      |                 |                 | Reversible with restrictions | Reversible | Reversible | Reversible      |                                 |
| Exhaust air function                         | Can be throttled   |                 |                 |                 |                 |                 |                              |            |            |                 |                                 |
| Type of mounting                             | Optionally via through-holes <sup>6)</sup> or on manifold rail |                 |                 |                 |                 |                 |                              |            |            |                 |                                 |
| Mounting position                            | Any  |                 |                 |                 |                 |                 |                              |            |            |                 |                                 |
| Standard nominal flow rate                   | [l/min]  | 650             | 600             | 650             | 550             | 500             | 780                          |            |            | 650             | 600                             |
| Switching time on/off                        | [ms]   | 6/19            |                 |                 | 9/13            |                 | 12/22                        | –          | 12/32      | 8/30            |                                 |
| Changeover time                              | [ms]   | –               |                 |                 |                 |                 |                              | 6          | –          | 16              |                                 |
| Width  | [mm]   | 14              |                 |                 |                 |                 |                              |            |            |                 |                                 |
| Connection                                   | 1, 2, 3, 4, 5  | G1/8            |                 |                 |                 |                 |                              |            |            |                 |                                 |
|  | 12, 14   | M5              |                 |                 |                 |                 |                              |            |            |                 |                                 |
| Product weight                               | [g]  | 81              |                 |                 | 77              |                 | 75                           | 81         | 67         | 81              |                                 |
| Corrosion resistance class CRC <sup>5)</sup> |  | 2               |                 |                 |                 |                 |                              |            |            |                 |                                 |

- 1) C = Normally closed
- 2) U = Normally open/mid-position pressurised
- 3) E = Normally exhausted
- 4) H = 2x 3/2-way valve in one housing with 1x normally closed and 1x normally open
- 5) Corrosion resistance class CRC 2 to Festo standard FN 940070  
 Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.
- 6) If several valves are to be screwed together via the through-holes to form a block, a minimum distance of 0.3 mm must be ensured by inserting spacers.

Data sheet

| Operating and environmental conditions |       |  |                     |                     |             |                         |
|--|-------|--|---------------------|---------------------|-------------|-------------------------|
| Valve function                         |       | T32-A <sup>2)</sup>  | T32-M <sup>3)</sup> | M52-A <sup>2)</sup> | B52         | M52-M <sup>3)</sup> P53 |
| Operating medium                       |       | Compressed air to ISO 8573-1:2010 [7:4:4]  |                     |                     |             |                         |
| Note on the operating/pilot medium     |       | Lubricated operation possible (in which case lubricated operation will always be required) |                     |                     |             |                         |
| Operating pressure                     | [bar] | 1.5 ... 10   | -0.9 ... 10         | 2.5 ... 10          | -0.9 ... 10 | -0.9 ... 10             |
| Pilot pressure <sup>1)</sup>           | [bar] | 1.5 ... 10   | 3 ... 10            | 2.5 ... 10          | 1.5 ... 10  | 3 ... 10                |
| Ambient temperature                    | [°C]  | -5 ... +60   |                     |                     |             |                         |
| Temperature of medium                  | [°C]  | -5 ... +50   |                     |                     |             |                         |

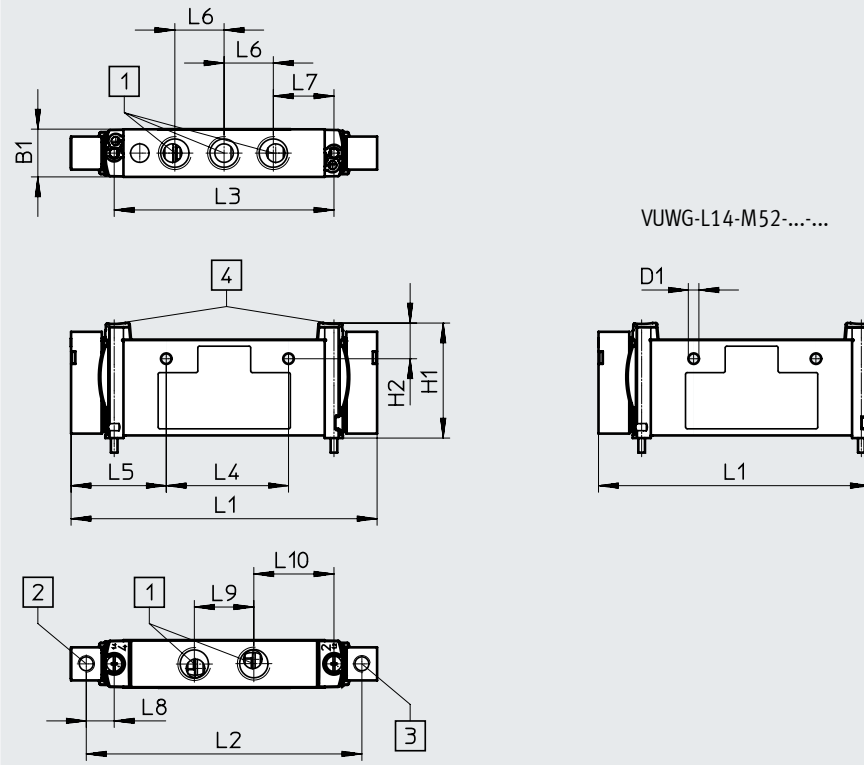
- 1) Note operating pressure/pilot pressure graph → page 4
- 2) Pneumatic spring
- 3) Mechanical spring

| Information on materials |                         |
|--------------------------|-------------------------|
| Housing                  | Wrought aluminium alloy |
| Seals                    | HNBR, NBR               |
| Note on materials        | RoHS-compliant          |

Dimensions

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

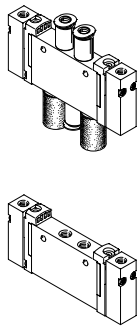
2x3/2-way, 5/2-way and 5/3-way valve



- [1] Ports 1, 2, 3, 4, 5: G1/8
- [2] Port 14: M5
- [3] Port 12: M5
- [4] Retaining screw M2.5

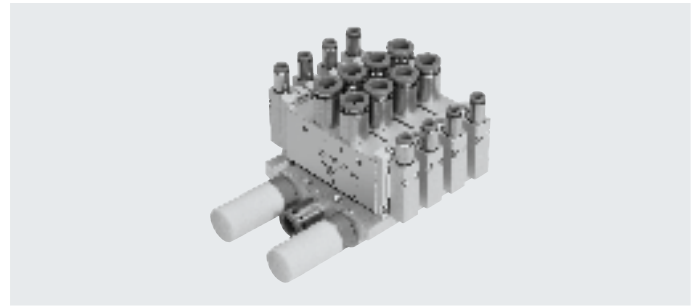
| Type             | B1   | D1 ø | H1   | H2   | L1    | L2   | L3   | L4 | L5   | L6   | L7    | L8   | L9 | L10   |
|------------------|------|------|------|------|-------|------|------|----|------|------|-------|------|----|-------|
| VUWG-L14-...     | 14.4 | 3.2  | 34.8 | 10.8 | 92.6  | 83.4 | 66.5 | 37 | 28.8 | 14.9 | 18.35 | 8.45 | 18 | 24.25 |
| VUWG-L14-M52-... |      |      |      |      | 82.25 |      |      |    |      |      |       |      |    |       |

## Ordering data

| Ordering data  | Description   | Part no.          | Type                |
|--|---|-------------------|---------------------|
| <b>In-line valve G1/8</b>  |   |                   |                     |
|  | <b>2x3/2-way valve</b>  |                   |                     |
|  | Normally closed,<br>pneumatic spring return,<br>internal pneumatic spring supply                      | 573829            | VUWG-L14-T32C-A-G18 |
|  | Normally open,<br>pneumatic spring return,<br>internal pneumatic spring supply                        | 573830            | VUWG-L14-T32U-A-G18 |
|  | 1x normally open, 1x normally closed,<br>pneumatic spring return,<br>internal pneumatic spring supply | 573831            | VUWG-L14-T32H-A-G18 |
|  | Normally closed,<br>mechanical spring return  | 574259            | VUWG-L14-T32C-M-G18 |
|  | Normally open,<br>mechanical spring return  | 574260            | VUWG-L14-T32U-M-G18 |
|  | 1x normally open, 1x normally closed,<br>mechanical spring return                                     | 574261            | VUWG-L14-T32H-M-G18 |
|  | <b>5/2-way monostable valve</b>   |                   |                     |
|  | Pneumatic/mechanical spring return,<br>internal pneumatic spring supply                               | 573832            | VUWG-L14-M52-A-G18  |
|  | Mechanical spring return  | 574262            | VUWG-L14-M52-M-G18  |
|  | <b>5/2-way bistable valve</b>   |                   |                     |
|  | -   | 573833            | VUWG-L14-B52-G18    |
|  | <b>5/3-way valve</b>  |                   |                     |
|  | Mid-position closed, mechanical spring return   | 573834            | VUWG-L14-P53C-G18   |
| Mid-position exhausted, mechanical spring return                                 | 573835  | VUWG-L14-P53E-G18 |                     |
| Mid-position pressurised, mechanical spring return                               | 573836  | VUWG-L14-P53U-G18 |                     |

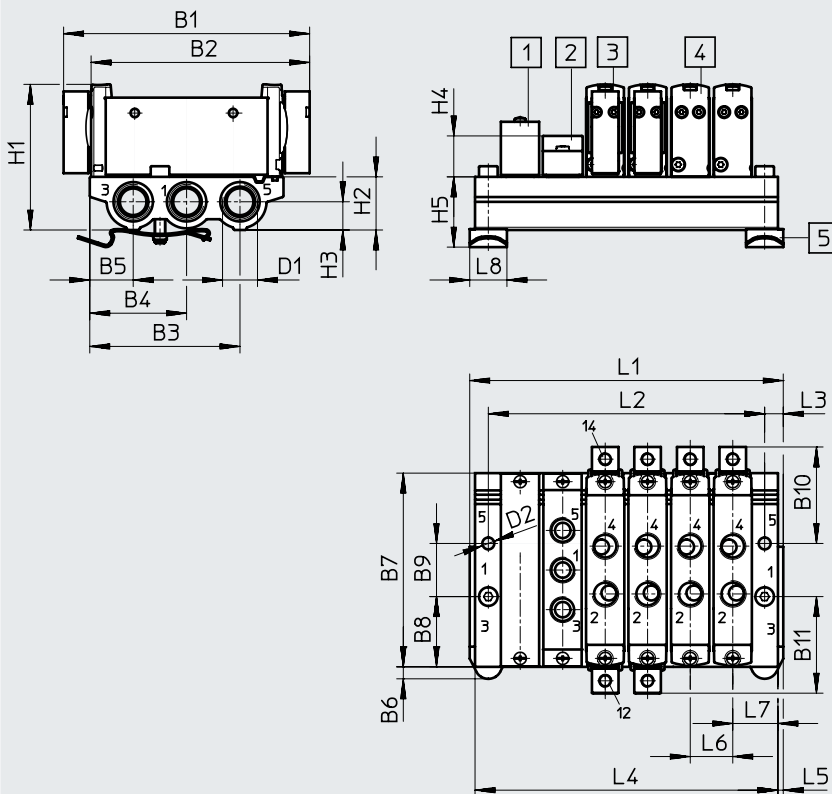
## Manifold assembly

In-line valves for manifold assembly



### Dimensions

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[1] Cover plate VABB-L1-14  
[2] Supply plate  
VABF-L1-14-P3A4-G18

[3] Pneumatic valve, bistable  
[4] Pneumatic valve, monostable

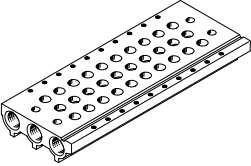
[5] H-rail mounting  
(two M4x25 screws to DIN 912  
are required for mounting)

| Type            | B1   | B2   | B3   | B4   | B5   | B6  | B7   | B8    | B9 | B10  | B11  | D1   |
|-----------------|------|------|------|------|------|-----|------|-------|----|------|------|------|
| VABM-L1-14S-G14 | 92.6 | 82.3 | 56.6 | 36.5 | 16.4 | 4.5 | 72.9 | 26.45 | 20 | 36.3 | 36.3 | G1/4 |

| Type            | D2    | H1   | H2 | H3   | H4   | H5   | L3 | L5 | L6 | L7 |
|-----------------|-------|------|----|------|------|------|----|----|----|----|
| VABM-L1-14S-G14 | ø 4.5 | 54.8 | 20 | 10.6 | 15.4 | 26.4 | 7  | 2  | 16 | 17 |

| Valve positions | 2  | 3  | 4  | 5  | 6   | 7   | 8   | 9   | 10  | 12  | 14  | 16  |
|-----------------|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|
| L1 [mm]         | 54 | 70 | 86 | 98 | 118 | 134 | 150 | 166 | 182 | 214 | 246 | 278 |
| L2 [mm]         | 40 | 56 | 72 | 88 | 104 | 120 | 136 | 152 | 168 | 200 | 232 | 264 |
| L4 [mm]         | 50 | 66 | 82 | 98 | 114 | 130 | 146 | 162 | 178 | 210 | 242 | 274 |

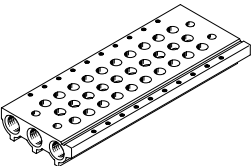
## Ordering data

| Technical data – Manifold rails  | Connection<br>1, 3, 5 | CRC <sup>1)</sup> | Material <sup>2)</sup>  | Operating pressure<br>[bar] | Max. tightening torque for assembly [Nm] |        |      |
|--|-----------------------|-------------------|-------------------------|-----------------------------|--|--------|------|
|  |                       |                   |                         |                             | Valve                                    | H-rail | Wall |
|  | G1/4                  | 2                 | Wrought aluminium alloy | -0.9 ... 10                 | 0.65                                     | 1.5    | 3    |

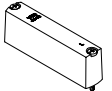

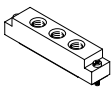
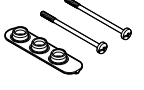
1) Corrosion resistance class CRC 2 to Festo standard FN 940070

Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.

2) Information on materials: RoHS-compliant



| Ordering data – Manifold rail  |                     | Description               | Part no.      | Type                      |
|--|---------------------|---------------------------|---------------|---------------------------|
| <b>Manifold rail for in-line valves (manifold assembly)</b>                      |                     |                           |               |                           |
|  | For valve size G1/8 | 2 valve positions         | <b>566618</b> | <b>VABM-L1-14S-G14-2</b>  |
|  |                     | 3 valve positions         | <b>566619</b> | <b>VABM-L1-14S-G14-3</b>  |
|  |                     | 4 valve positions         | <b>566620</b> | <b>VABM-L1-14S-G14-4</b>  |
|  |                     | 5 valve positions         | <b>566621</b> | <b>VABM-L1-14S-G14-5</b>  |
|  |                     | 6 valve positions         | <b>566622</b> | <b>VABM-L1-14S-G14-6</b>  |
|  |                     | 7 valve positions         | <b>566623</b> | <b>VABM-L1-14S-G14-7</b>  |
|  |                     | 8 valve positions         | <b>566624</b> | <b>VABM-L1-14S-G14-8</b>  |
|  |                     | 9 valve positions         | <b>566625</b> | <b>VABM-L1-14S-G14-9</b>  |
|  |                     | 10 valve positions        | <b>566626</b> | <b>VABM-L1-14S-G14-10</b> |
|  |                     | 12 valve positions        | <b>566627</b> | <b>VABM-L1-14S-G14-12</b> |
|  |                     | 14 valve positions        | <b>566628</b> | <b>VABM-L1-14S-G14-14</b> |
| 16 valve positions   | <b>566629</b>       | <b>VABM-L1-14S-G14-16</b> |               |                           |

## Ordering data

| Ordering data – Accessories  |   |  |  |
|--|---|--|--|
|  | Description                               | Part no.   | Type                                     |
| Cover plate <span style="float: right;">Data sheets → Internet: vabb</span>              |   |  |  |
|         | For manifold rail for G1/8 in-line valves | Incl. screws and seal                                      | <b>569989</b> <b>VABB-L1-14</b>          |
| Separator <span style="float: right;">Data sheets → Internet: vabd</span>                |   |  |  |
|         | For manifold rail for G1/8 in-line valves | Separator for pressure zones                               | <b>569996</b> <b>VABD-10-B</b>           |
| Supply plate <span style="float: right;">Data sheets → Internet: vabf</span>             |   |  |  |
|         | For manifold rail for G1/8 in-line valves | Incl. screws and seal                                      | <b>569993</b> <b>VABF-L1-14-P3A4-G18</b> |
| Seals for in-line valves <span style="float: right;">Data sheets → Internet: vabd</span> |   |  |  |
|         | G1/8                                      | Delivery quantity: 10 sets (each with 2 screws and 1 seal) | <b>566675</b> <b>VABD-L1-14X-S-G18</b>   |

## Data sheet

Function  
 2x3/2C, 2x3/2U, 2x3/2H  
 5/2-way, monostable  
 5/2-way, bistable  
 5/3C, 5/3U, 5/3E

 - Width 18 mm  
 - Flow rate  
 1000 ... 1380 l/min



| General technical data                       |  |                 |                 |                 |                 |                 |                              |            |                       |                 |                       |                 |
|--|--|-----------------|-----------------|-----------------|-----------------|-----------------|------------------------------|------------|-----------------------|-----------------|-----------------------|-----------------|
| Valve function                               | T32-A  |                 |                 | T32-M           |                 |                 | M52-R                        | B52        | M52-M                 | P53             |                       |                 |
| Normal position                              | C <sup>1)</sup>  | U <sup>2)</sup> | H <sup>4)</sup> | C <sup>1)</sup> | U <sup>2)</sup> | H <sup>4)</sup> | –                            | –          | –                     | C <sup>1)</sup> | U <sup>2)</sup>       | E <sup>3)</sup> |
| Pneumatic spring return                      | Yes  |                 |                 | No              |                 |                 | Yes <sup>5)</sup>            | –          | No                    | No              |                       |                 |
| Mechanical spring return                     | No   |                 |                 | Yes             |                 |                 | Yes <sup>5)</sup>            | –          | Yes                   | Yes             |                       |                 |
| Vacuum operation at port 1                   | No   |                 |                 | Yes             |                 |                 | No                           | Yes        |                       |                 |                       |                 |
| Vacuum operation at port 3/5                 | Yes  |                 |                 |                 |                 |                 |                              |            |                       |                 |                       |                 |
| Design                                       | Piston spool   |                 |                 |                 |                 |                 |                              |            |                       |                 |                       |                 |
| Lap  | Overlap  |                 |                 |                 |                 |                 | Indeterminate overlap        | Overlap    | Indeterminate overlap | Overlap         | Indeterminate overlap |                 |
| Sealing principle                            | Soft   |                 |                 |                 |                 |                 |                              |            |                       |                 |                       |                 |
| Actuation type                               | Pneumatic  |                 |                 |                 |                 |                 |                              |            |                       |                 |                       |                 |
| Type of control                              | Direct   |                 |                 |                 |                 |                 |                              |            |                       |                 |                       |                 |
| Flow direction                               | Reversible with restrictions                                   |                 |                 | Reversible      |                 |                 | Reversible with restrictions | Reversible | Reversible            | Reversible      |                       |                 |
| Exhaust air function                         | Can be throttled   |                 |                 |                 |                 |                 |                              |            |                       |                 |                       |                 |
| Type of mounting                             | Optionally via through-holes <sup>7)</sup> or on manifold rail |                 |                 |                 |                 |                 |                              |            |                       |                 |                       |                 |
| Mounting position                            | Any  |                 |                 |                 |                 |                 |                              |            |                       |                 |                       |                 |
| Standard nominal flow rate                   | [l/min] 1000   |                 |                 |                 |                 |                 | 1300                         | 1380       | 1300                  | 1200            |                       |                 |
| Switching time on/off                        | [ms] 12/36   |                 |                 | 17/25           |                 |                 | 16/40                        | –          | 12/59                 | 17/69           |                       |                 |
| Changeover time                              | [ms] –   |                 |                 |                 |                 |                 |                              | 12         | –                     | 34              |                       |                 |
| Width  | [mm] 18  |                 |                 |                 |                 |                 |                              |            |                       |                 |                       |                 |
| Connection                                   | 1, 2, 3, 4, 5  |                 |                 | G1/4            |                 |                 |                              |            |                       |                 |                       |                 |
|  | 12, 14   |                 |                 | M5              |                 |                 |                              |            |                       |                 |                       |                 |
| Product weight                               | [g] 160  |                 |                 |                 |                 |                 | 152                          | 160        | 152                   |                 |                       |                 |
| Corrosion resistance class CRC <sup>6)</sup> | 2  |                 |                 |                 |                 |                 |                              |            |                       |                 |                       |                 |

- 1) C = Normally closed
- 2) U = Normally open/mid-position pressurised
- 3) E = Normally exhausted
- 4) H = 2x 3/2-way valve in one housing with 1x normally closed and 1x normally open
- 5) Combined reset method
- 6) Corrosion resistance class CRC 2 to Festo standard FN 940070  
 Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.
- 7) If several valves are to be screwed together via the through-holes to form a block, a minimum distance of 0.3 mm must be ensured by inserting spacers.



## Data sheet

| Operating and environmental conditions |       |  |                     |                     |             |                         |
|--|-------|--|---------------------|---------------------|-------------|-------------------------|
| Valve function                         |       | T32-A <sup>2)</sup>  | T32-M <sup>3)</sup> | M52-R <sup>4)</sup> | B52         | M52-M <sup>3)</sup> P53 |
| Operating medium                       |       | Compressed air to ISO 8573-1:2010 [7:4:4]  |                     |                     |             |                         |
| Note on the operating/pilot medium     |       | Lubricated operation possible (in which case lubricated operation will always be required) |                     |                     |             |                         |
| Operating pressure                     | [bar] | 1.5 ... 10   | -0.9 ... 10         | 2.5 ... 10          | -0.9 ... 10 | -0.9 ... 10             |
| Pilot pressure <sup>1)</sup>           | [bar] | 1.5 ... 10   | 3 ... 10            | 2.5 ... 10          | 1.5 ... 10  | 3 ... 10                |
| Ambient temperature                    | [°C]  | -5 ... +60   |                     |                     |             |                         |
| Temperature of medium                  | [°C]  | -5 ... +50   |                     |                     |             |                         |

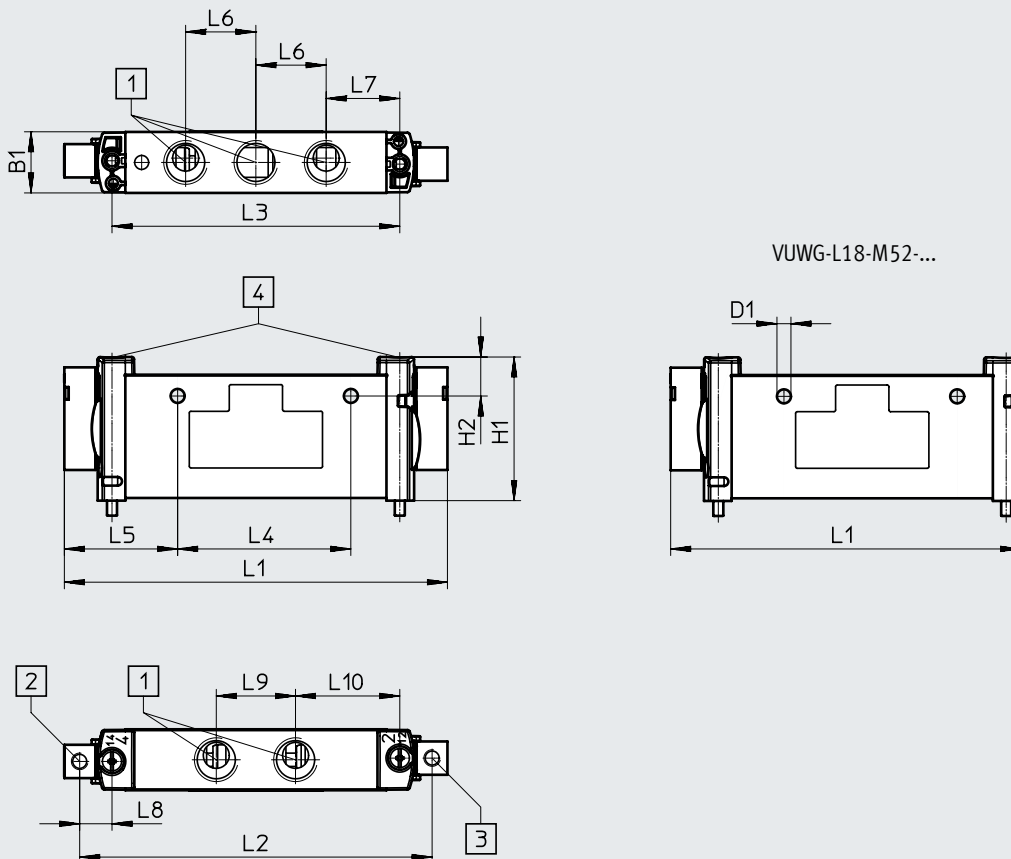
- 1) Note operating pressure/pilot pressure graph → page 4
- 2) Pneumatic spring
- 3) Mechanical spring
- 4) Mixed, pneumatic/mechanical spring

| Information on materials |                         |
|--------------------------|-------------------------|
| Housing                  | Wrought aluminium alloy |
| Seals                    | HNBR, NBR               |
| Note on materials        | RoHS-compliant          |

### Dimensions

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

2x3/2-way, 5/2-way and 5/3-way valve



[1] Ports 1, 2, 3, 4, 5: G1/4

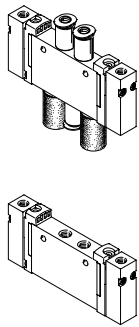
[2] Port 14: M5

[4] Retaining screw M3

[3] Port 12: M5

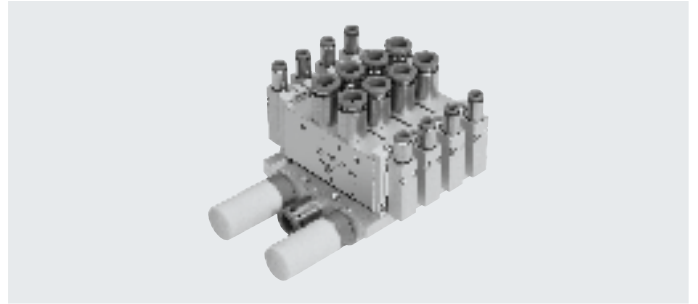
| Type             | B1   | D1 ø | H1   | H2  | L1  | L2   | L3   | L4 | L5 | L6   | L7   | L8  | L9   | L10  |
|------------------|------|------|------|-----|-----|------|------|----|----|------|------|-----|------|------|
| VUWG-L18-...     | 18.3 | 4.2  | 43.1 | 6.4 | 115 | 96.1 | 86.4 | 52 | 34 | 21.1 | 22.1 | 9.7 | 23.8 | 31.3 |
| VUWG-L18-M52-... |      |      |      |     | 105 |      |      |    |    |      |      |     |      |      |

## Ordering data

| Ordering data  | Description   | Part no.          | Type                |
|--|---|-------------------|---------------------|
| <b>In-line valve G1/4</b>  |   |                   |                     |
|  | <b>2x3/2-way valve</b>  |                   |                     |
|  | Normally closed,<br>pneumatic spring return,<br>internal pneumatic spring supply                      | 574263            | VUWG-L18-T32C-A-G14 |
|  | Normally open,<br>pneumatic spring return,<br>internal pneumatic spring supply                        | 574264            | VUWG-L18-T32U-A-G14 |
|  | 1x normally open, 1x normally closed,<br>pneumatic spring return,<br>internal pneumatic spring supply | 574265            | VUWG-L18-T32H-A-G14 |
|  | Normally closed,<br>mechanical spring return  | 574266            | VUWG-L18-T32C-M-G14 |
|  | Normally open,<br>mechanical spring return  | 574267            | VUWG-L18-T32U-M-G14 |
|  | 1x normally open, 1x normally closed,<br>mechanical spring return                                     | 574268            | VUWG-L18-T32H-M-G14 |
|  | <b>5/2-way monostable valve</b>   |                   |                     |
|  | Pneumatic/mechanical spring return,<br>internal pneumatic spring supply                               | 574269            | VUWG-L18-M52-R-G14  |
|  | Mechanical spring return  | 574270            | VUWG-L18-M52-M-G14  |
|  | <b>5/2-way bistable valve</b>   |                   |                     |
|  | -   | 574271            | VUWG-L18-B52-G14    |
|  | <b>5/3-way valve</b>  |                   |                     |
|  | Mid-position closed, mechanical spring return   | 574272            | VUWG-L18-P53C-G14   |
|  | Mid-position exhausted, mechanical spring return  | 574273            | VUWG-L18-P53E-G14   |
| Mid-position pressurised, mechanical spring return                               | 574274  | VUWG-L18-P53U-G14 |                     |

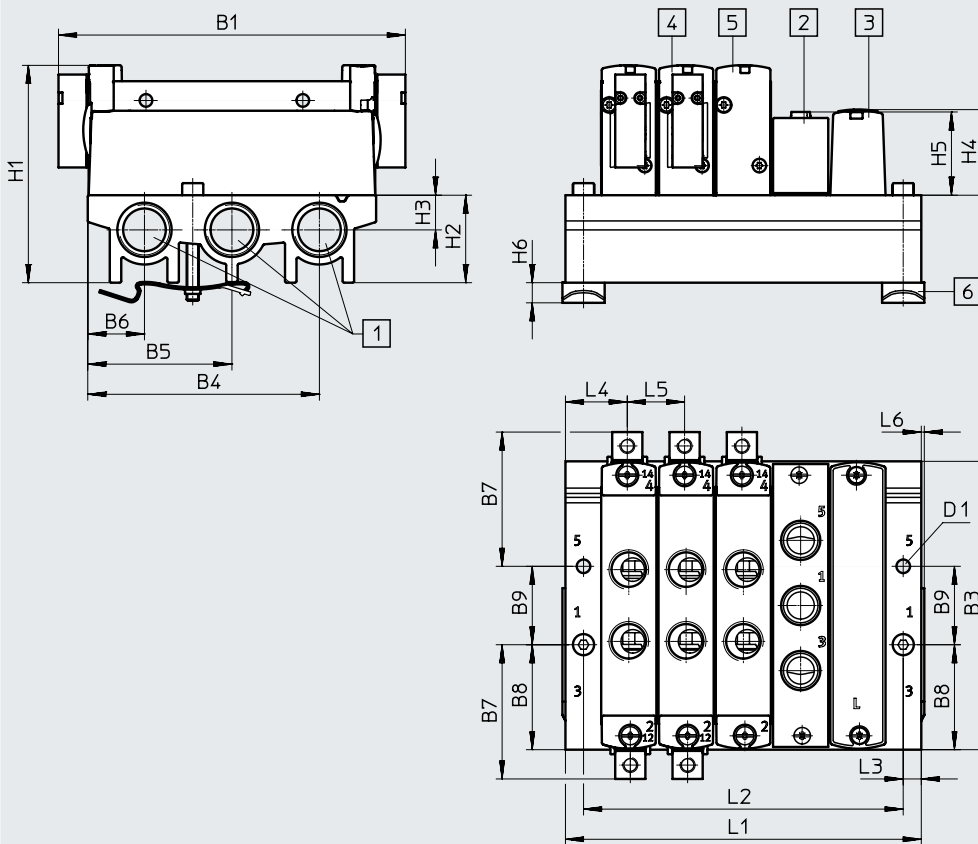
## Manifold assembly

In-line valves for manifold assembly



### Dimensions

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



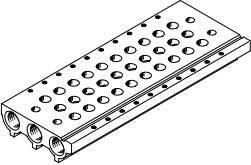
- [1] Ports 1, 3 and 5: G3/8
- [2] Cover plate VABB-L1-18
- [3] Supply plate VABF-L1-18-P3A4-G14
- [4] Pneumatic valve, bistable
- [5] Pneumatic valve, monostable
- [6] H-rail mounting (two M4x35 screws to DIN 912 are required)

| Type            | B1  | B3   | B4   | B5   | B6   | B7   | B8   | B9 | D1  | H1   | H2 |
|-----------------|-----|------|------|------|------|------|------|----|-----|------|----|
| VABM-L1-18S-G38 | 115 | 95.6 | 76.8 | 47.8 | 18.8 | 44.5 | 34.8 | 26 | 4.5 | 72.1 | 29 |

| Type            | H3   | H4   | H5   | H6  | L3 | L4   | L5 | L6 |
|-----------------|------|------|------|-----|----|------|----|----|
| VABM-L1-18S-G38 | 11.5 | 28.4 | 27.6 | 6.5 | 6  | 20.5 | 19 | 1  |

| Valve positions | 2  | 3  | 4  | 5   | 6   | 7   | 8   | 9   | 10  | 12  | 14  | 16  |
|-----------------|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| L1 [mm]         | 61 | 80 | 99 | 118 | 137 | 156 | 175 | 194 | 213 | 251 | 289 | 327 |
| L2 [mm]         | 49 | 68 | 87 | 106 | 125 | 144 | 163 | 182 | 201 | 239 | 277 | 315 |

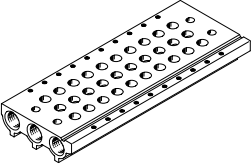
## Ordering data

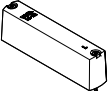

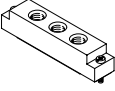
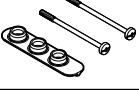
| Technical data – Manifold rails  | Connection<br>1, 3, 5 | CRC <sup>1)</sup> | Material <sup>2)</sup>  | Operating pressure<br>[bar] | Max. tightening torque for assembly [Nm] |        |      |
|--|-----------------------|-------------------|-------------------------|-----------------------------|--|--------|------|
|  |                       |                   |                         |                             | Valve                                    | H-rail | Wall |
|  | G3/8                  | 2                 | Wrought aluminium alloy | -0.9 ... 10                 | 0.65                                     | 1.5    | 3    |


1) Corrosion resistance class CRC 2 to Festo standard FN 940070

Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.

2) Information on materials: RoHS-compliant.

| Ordering data – Manifold rail  |                     | Description        | Part no. | Type               |
|--|---------------------|--------------------|----------|--------------------|
| <b>Manifold rail for in-line valve</b>   |                     |                    |          |                    |
|  | For valve size G1/4 | 2 valve positions  | 574455   | VABM-L1-18S-G38-2  |
|  |                     | 3 valve positions  | 574456   | VABM-L1-18S-G38-3  |
|  |                     | 4 valve positions  | 574457   | VABM-L1-18S-G38-4  |
|  |                     | 5 valve positions  | 574458   | VABM-L1-18S-G38-5  |
|  |                     | 6 valve positions  | 574459   | VABM-L1-18S-G38-6  |
|  |                     | 7 valve positions  | 574460   | VABM-L1-18S-G38-7  |
|  |                     | 8 valve positions  | 574461   | VABM-L1-18S-G38-8  |
|  |                     | 9 valve positions  | 574462   | VABM-L1-18S-G38-9  |
|  |                     | 10 valve positions | 574463   | VABM-L1-18S-G38-10 |
|  |                     | 12 valve positions | 574464   | VABM-L1-18S-G38-12 |
|  |                     | 14 valve positions | 574465   | VABM-L1-18S-G38-14 |
| 16 valve positions   | 574466              | VABM-L1-18S-G38-16 |          |                    |

| Ordering data – Accessories   |   | Description  | Part no. | Type                |
|---|---|--|----------|---------------------|
| <b>Cover plate</b> <span style="float: right;">Data sheets → Internet: vabb</span>              |   |  |          |                     |
|               | For manifold rail for G1/4 in-line valves | Incl. screws and seal                                      | 574482   | VABB-L1-18          |
| <b>Separator</b> <span style="float: right;">Data sheets → Internet: vabd</span>                |   |  |          |                     |
|               | For manifold rail for G1/4 in-line valves | Separator for pressure zones                               | 574483   | VABD-14-B           |
| <b>Supply plate</b> <span style="float: right;">Data sheets → Internet: vabf</span>             |   |  |          |                     |
|               | For manifold rail for G1/4 in-line valves | Incl. screws and seal                                      | 574481   | VABF-L1-18-P3A4-G14 |
| <b>Seals for in-line valves</b> <span style="float: right;">Data sheets → Internet: vabd</span> |   |  |          |                     |
|               | G1/4                                      | Delivery quantity: 10 sets (each with 2 screws and 1 seal) | 574479   | VABD-L1-18X-S-G14   |


 **Note**

Connect supply plate at port 1 with compressed air. Reverse operation (pressure at port 3/5) is not permissible.

## Data sheet

Function  
 5/2-way, monostable  
 5/2-way, bistable  
 5/3C, 5/3U, 5/3E

-  - Width 10 mm

-  - Flow rate  
 80 ... 100 l/min



| General technical data                       |                   |                     |       |                 |                 |                 |
|--|-------------------|---------------------|-------|-----------------|-----------------|-----------------|
| Valve function                               | M52-R             | B52                 | M52-M | P53             |                 |                 |
| Normal position                              | -                 | -                   | -     | C <sup>1)</sup> | U <sup>2)</sup> | E <sup>3)</sup> |
| Pneumatic spring return                      | Yes <sup>4)</sup> | -                   | No    | No              |                 |                 |
| Mechanical spring return                     | Yes <sup>4)</sup> | -                   | Yes   | Yes             |                 |                 |
| Vacuum operation at port 1                   | No                | Yes                 |       |                 |                 |                 |
| Vacuum operation at port 3/5                 | Yes               |                     |       |                 |                 |                 |
| Design                                       | Piston spool      |                     |       |                 |                 |                 |
| Sealing principle                            | Soft              |                     |       |                 |                 |                 |
| Actuation type                               | Pneumatic         |                     |       |                 |                 |                 |
| Type of control                              | Direct            |                     |       |                 |                 |                 |
| Pneumatic spring supply                      | External          | -                   | -     | -               | -               | -               |
| Exhaust air function                         | Can be throttled  |                     |       |                 |                 |                 |
| Type of mounting                             | On manifold rail  |                     |       |                 |                 |                 |
| Mounting position                            | Any               |                     |       |                 |                 |                 |
| Standard nominal flow rate                   | [l/min]           | 100                 |       | 80              | 90              |                 |
| Switching time on/off                        | [ms]              | 5/11                | -     | 5/16            | 7/19            |                 |
| Changeover time                              | [ms]              | -                   | 5     | -               | 9               |                 |
| Width  | [mm]              | 10                  |       |                 |                 |                 |
| Connection                                   | 1, 3, 5           | M7 in manifold rail |       |                 |                 |                 |
|  | 2, 4              | M5 in manifold rail |       |                 |                 |                 |
|  | 12, 14            | M5                  |       |                 |                 |                 |
| Product weight                               | [g]               | 37                  | 40    | 34              | 40              |                 |
| Corrosion resistance class CRC <sup>5)</sup> | 2                 |                     |       |                 |                 |                 |

1) C = Normally closed

2) U = Normally open/mid-position pressurised

3) E = Normally exhausted

4) Combined reset method

5) Corrosion resistance class CRC 2 to Festo standard FN 940070

Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.

## Data sheet

| Operating and environmental conditions |  |                     |             |                     |             |
|--|--|---------------------|-------------|---------------------|-------------|
| Valve function                         |  | M52-R <sup>3)</sup> | B52         | M52-M <sup>2)</sup> | P53         |
| Operating medium                       | Compressed air to ISO 8573-1:2010 [7:4:4]  |                     |             |                     |             |
| Note on the operating/pilot medium     | Lubricated operation possible (in which case lubricated operation will always be required) |                     |             |                     |             |
| Operating pressure                     | [bar]  | 2.5 ... 10          | -0.9 ... 10 | -0.9 ... 8          | -0.9 ... 10 |
| Pilot pressure <sup>1)</sup>           | [bar]  | 2.5 ... 10          | 1.5 ... 10  | 3 ... 10            |             |
| Ambient temperature                    | [°C]   | -5 ... +60          |             |                     |             |
| Temperature of medium                  | [°C]   | -5 ... +50          |             |                     |             |

1) Note operating pressure/pilot pressure graph → page 4

2) Mechanical spring

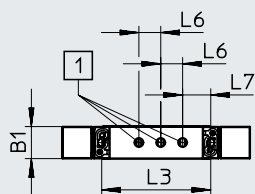
3) Mixed, pneumatic/mechanical spring

| Information on materials |                    |
|--------------------------|--------------------|
| Housing                  | Anodised aluminium |
| Seals                    | HNBR, NBR          |
| Note on materials        | RoHS-compliant     |

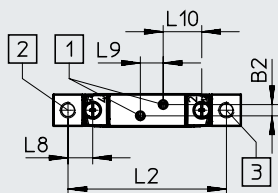
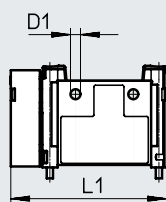
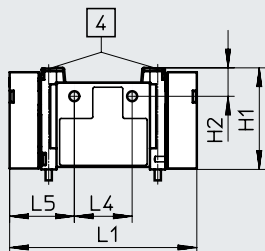
### Dimensions

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

5/2-way and 5/3-way valve



VUWG-L10A-M52-...-M3



[1] Ports 1, 2, 3, 4, 5

[2] Port 14: M5

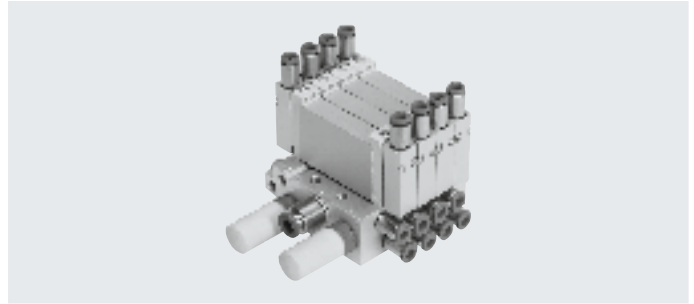
[4] Retaining screw M2.5

[3] Port 12: M5

| Type              | B1   | H1   | L1   | L2   | L3   | L8  |
|-------------------|------|------|------|------|------|-----|
| VUWG-B10A-...     | 10.3 | 32.5 | 59.9 | 50.7 | 34.9 | 7.9 |
| VUWG-B10A-M52-... |      |      | 49.9 |      |      |     |

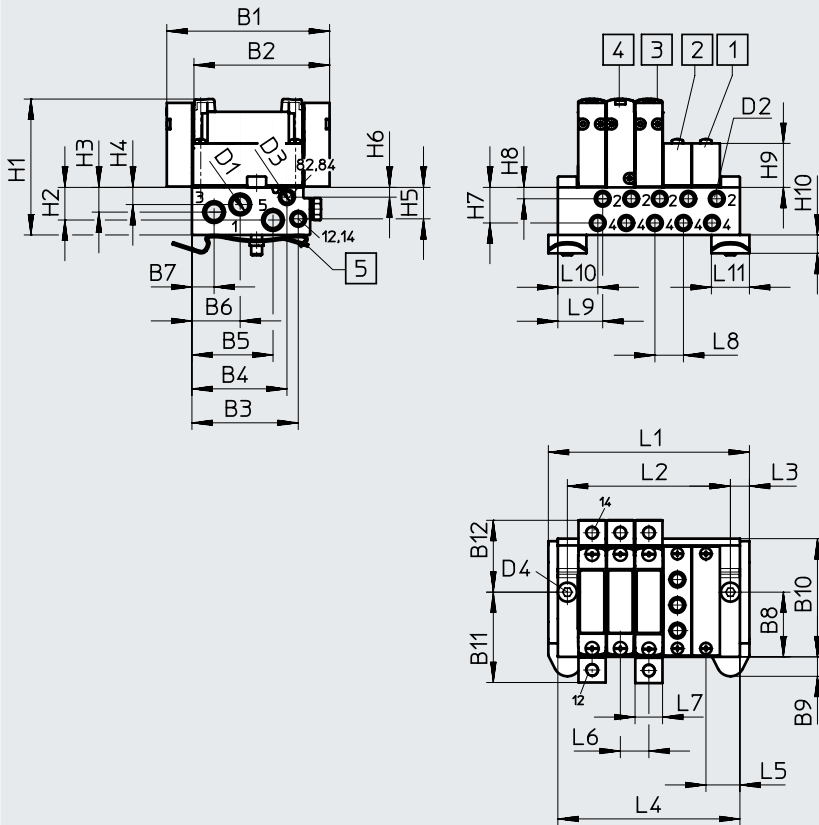
## Manifold assembly

Sub-base valve for manifold assembly  
Connection M5



### Dimensions

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



- [1] Cover plate VABB-L1-10A
- [2] Supply plate VABF-L1-10A-P3A4-M5
- [3] Pneumatic valve, bistable
- [4] Pneumatic valve, monostable
- [5] H-rail mounting (two M4x25 screws to DIN 912 are required)

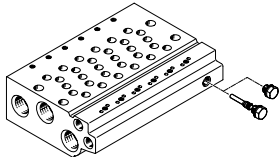
| Type            | B1   | B2   | B3   | B4 | B5   | B6   | B7  | B8 | B9   | B10  | B11   | B12   |
|-----------------|------|------|------|----|------|------|-----|----|------|------|-------|-------|
| VABM-L1-10AW-M7 | 59.9 | 49.9 | 39.1 | 35 | 29.8 | 17.8 | 8.2 | 24 | 7.15 | 43.5 | 33.45 | 26.45 |

| Type            | H1 | H2 | H3  | H4  | H5   | H6  | H7   | H8  | H9   | H10 | D1 | D2 |
|-----------------|----|----|-----|-----|------|-----|------|-----|------|-----|----|----|
| VABM-L1-10AW-M7 | 50 | 12 | 9.1 | 6.3 | 11.6 | 3.6 | 13.1 | 4.2 | 16.2 | 6.8 | M7 | M5 |

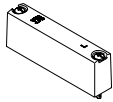

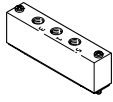
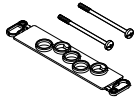
| Type            | D3 | D4    | L3 | L5   | L6   | L7   | L8   | L9   | L10  | L11 |
|-----------------|----|-------|----|------|------|------|------|------|------|-----|
| VABM-L1-10AW-M7 | M5 | ∅ 4.5 | 7  | 12.5 | 10.5 | 10.2 | 10.5 | 16.5 | 14.7 | 11  |

| Valve positions | 2    | 3  | 4    | 5  | 6    | 7  | 8     | 9   | 10    | 12    | 14    | 16    |
|-----------------|------|----|------|----|------|----|-------|-----|-------|-------|-------|-------|
| L1 [mm]         | 42.5 | 53 | 63.5 | 74 | 84.5 | 96 | 106.5 | 116 | 126.5 | 147.5 | 168.5 | 189.5 |
| L2 [mm]         | 28.5 | 39 | 49.5 | 60 | 70.5 | 81 | 91.5  | 102 | 112.5 | 133.5 | 154.5 | 175.5 |
| L4 [mm]         | 35.5 | 46 | 56.5 | 67 | 77.5 | 89 | 99.5  | 109 | 119.5 | 140.5 | 161.5 | 182.5 |

## Ordering data

| Technical data – Manifold rails <sup>1)</sup>                                    | Connection |         |              | CRC <sup>2)</sup> | Material <sup>3)</sup>  | Operating pressure [bar] | Max. tightening torque for assembly [Nm] |        |      |
|--|------------|---------|--------------|-------------------|-------------------------|--------------------------|--|--------|------|
|  | 2, 4       | 1, 3, 5 | 12/14, 82/84 |                   |                         |                          | Valve                                    | H-rail | Wall |
|  | M5         | M7      | M5           | 2                 | Wrought aluminium alloy | -0.9 ... 10              | 0.45                                     | 1.5    | 1.5  |

- 1) Blanking plugs are included with the manifold rail.
- 2) Corrosion resistance class CRC 2 to Festo standard FN 940070  
Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.
- 3) Information on materials: RoHS-compliant.

| Ordering data – Accessories   |                          |  |               |                            |
|---|--------------------------|--|---------------|----------------------------|
|   | Description              |  | Part no.      | Type                       |
| <b>Cover plate</b> <span style="float: right;">Data sheets → Internet: vabb</span>  |                          |  |               |                            |
|     | For manifold rail 10AW   | Incl. screws and seal                                      | <b>569986</b> | <b>VABB-L1-10A</b>         |
| <b>Separator</b> <span style="float: right;">Data sheets → Internet: vabd</span>    |                          |  |               |                            |
|    | For manifold rail 10AW   | Separator for pressure zones                               | <b>570872</b> | <b>VABD-4.2-B</b>          |
| <b>Supply plate</b> <span style="float: right;">Data sheets → Internet: vabf</span> |                          |  |               |                            |
|   | For manifold rail 10AW   | Incl. screws and seal                                      | <b>569990</b> | <b>VABF-L1-10A-P3A4-M5</b> |
| <b>Seals</b> <span style="float: right;">Data sheets → Internet: vabd</span>        |                          |  |               |                            |
|   | For sub-base valves B10A | Delivery quantity: 10 sets (each with 2 screws and 1 seal) | <b>566671</b> | <b>VABD-L1-10AB-S-M3</b>   |



## Data sheet


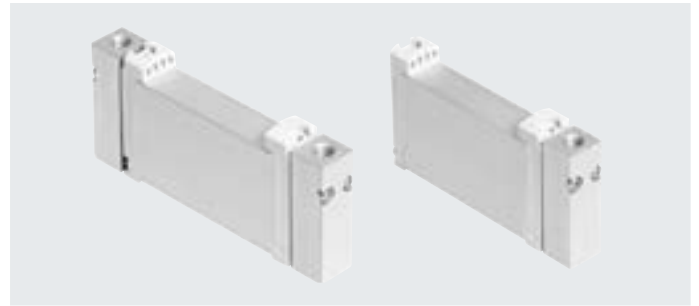
## Function

2x3/2C, 2x3/2U, 2x3/2H

5/2-way, monostable

5/2-way, bistable

5/3C, 5/3U, 5/3E

-  - Width 10 mm-  - Flow rate  
120 ... 270 l/min

| General technical data                       |         | T32-A                  |                 |                 | T32-M           |                 |                 | M52-R             | B52 | M52-M | P53             |                 |                 |
|--|---------|------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-------------------|-----|-------|-----------------|-----------------|-----------------|
| Valve function                               |         | C <sup>1)</sup>        | U <sup>2)</sup> | H <sup>4)</sup> | C <sup>1)</sup> | U <sup>2)</sup> | H <sup>4)</sup> | –                 | –   | –     | C <sup>1)</sup> | U <sup>2)</sup> | E <sup>3)</sup> |
| Normal position                              |         |                        |                 |                 |                 |                 |                 | –                 | –   | –     |                 |                 |                 |
| Pneumatic spring return                      |         | Yes                    |                 |                 | No              |                 |                 | Yes <sup>5)</sup> | –   | No    | No              |                 |                 |
| Mechanical spring return                     |         | No                     |                 |                 | Yes             |                 |                 | Yes <sup>5)</sup> | –   | Yes   | Yes             |                 |                 |
| Vacuum operation at port 1                   |         | No                     |                 |                 | Yes             |                 |                 | Yes <sup>7)</sup> | Yes |       |                 |                 |                 |
| Vacuum operation at port 3/5                 |         | Yes                    |                 |                 |                 |                 |                 |                   |     |       |                 |                 |                 |
| Design                                       |         | Piston spool           |                 |                 |                 |                 |                 |                   |     |       |                 |                 |                 |
| Sealing principle                            |         | Soft                   |                 |                 |                 |                 |                 |                   |     |       |                 |                 |                 |
| Actuation type                               |         | Pneumatic              |                 |                 |                 |                 |                 |                   |     |       |                 |                 |                 |
| Type of control                              |         | Direct                 |                 |                 |                 |                 |                 |                   |     |       |                 |                 |                 |
| Pneumatic spring supply                      |         | External               |                 |                 | –               |                 |                 | External          | –   | –     | –               |                 |                 |
| Exhaust air function                         |         | Can be throttled       |                 |                 |                 |                 |                 |                   |     |       |                 |                 |                 |
| Type of mounting                             |         | On manifold rail       |                 |                 |                 |                 |                 |                   |     |       |                 |                 |                 |
| Mounting position                            |         | Any                    |                 |                 |                 |                 |                 |                   |     |       |                 |                 |                 |
| Standard nominal flow rate M5                | [l/min] | 150                    |                 |                 | 130             | 120             | 210             |                   |     | 180   |                 |                 | 200             |
| Standard nominal flow rate M7                | [l/min] | 160                    |                 |                 | 140             | 130             | 270             |                   |     | 230   |                 |                 | 250             |
| Switching time on/off                        | [ms]    | 4/9                    |                 |                 | 6/7             |                 |                 | 6/12              |     | –     | 7/16            |                 | 8/25            |
| Changeover time                              | [ms]    | –                      |                 |                 | –               |                 |                 | –                 |     | 5     | –               |                 | 11              |
| Width  | [mm]    | 10                     |                 |                 |                 |                 |                 |                   |     |       |                 |                 |                 |
| Connection                                   | 1, 3, 5 | G1/8 in manifold rail  |                 |                 |                 |                 |                 |                   |     |       |                 |                 |                 |
|  | 2, 4    | M5/M7 in manifold rail |                 |                 |                 |                 |                 |                   |     |       |                 |                 |                 |
|  | 12, 14  | M5                     |                 |                 |                 |                 |                 |                   |     |       |                 |                 |                 |
| Product weight                               | [g]     | 48                     |                 |                 | 51              |                 |                 | 45                |     | 48    | 41              |                 | 48              |
| Corrosion resistance class CRC <sup>6)</sup> |         | 2                      |                 |                 |                 |                 |                 |                   |     |       |                 |                 |                 |

1) C = Normally closed

2) U = Normally open/mid-position pressurised

3) E = Normally exhausted

4) H = 2x 3/2-way valve in one housing with 1x normally closed and 1x normally open

5) Combined reset method

6) Corrosion resistance class CRC 2 to Festo standard FN 940070

Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.

7) Only with external pneumatic spring supply

## Data sheet

| Operating and environmental conditions |  |                     |                     |                     |             |                     |             |
|--|--|---------------------|---------------------|---------------------|-------------|---------------------|-------------|
| Valve function                         |  | T32-A <sup>2)</sup> | T32-M <sup>3)</sup> | M52-R <sup>4)</sup> | B52         | M52-M <sup>2)</sup> | P53         |
| Operating medium                       | Compressed air to ISO 8573-1:2010 [7:4:4]  |                     |                     |                     |             |                     |             |
| Note on the operating/pilot medium     | Lubricated operation possible (in which case lubricated operation will always be required) |                     |                     |                     |             |                     |             |
| Operating pressure                     | [bar]  | 1.5 ... 10          | -0.9 ... 10         | 2.5 ... 10          | -0.9 ... 10 | -0.9 ... 8          | -0.9 ... 10 |
| Pilot pressure <sup>1)</sup>           | [bar]  | 1.5 ... 10          | 3 ... 10            | 2.5 ... 10          | 1.5 ... 10  | 3 ... 10            |             |
| Ambient temperature                    | [°C]   | -5 ... +60          |                     |                     |             |                     |             |
| Temperature of medium                  | [°C]   | -5 ... +50          |                     |                     |             |                     |             |

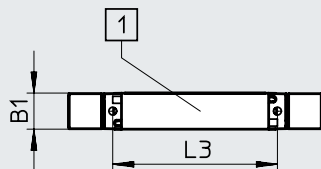
- 1) Note operating pressure/pilot pressure graph → page 4
- 2) Pneumatic spring
- 3) Mechanical spring
- 4) Mixed, pneumatic/mechanical spring

| Information on materials |                         |
|--------------------------|-------------------------|
| Housing                  | Wrought aluminium alloy |
| Seals                    | HNBR, NBR               |
| Note on materials        | RoHS-compliant          |

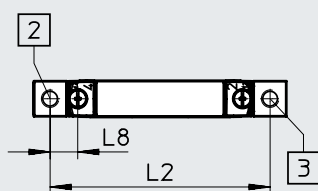
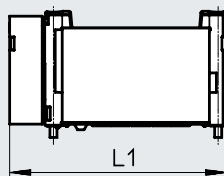
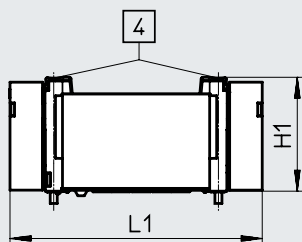
### Dimensions

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

2x3/2-way, 5/2-way and 5/3-way valve



VUWG-B10-M52-...



[1] Ports 1, 2, 3, 4, 5

[2] Port 14: M5

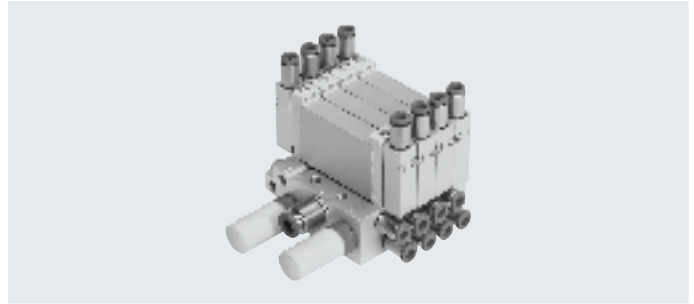
[4] Retaining screw M2.5

[3] Port 12: M5

| Type             | B1   | H1   | L1 | L2   | L3 | L8  |
|------------------|------|------|----|------|----|-----|
| VUWG-B10-...     | 10.3 | 32.5 | 72 | 62.8 | 47 | 7.9 |
| VUWG-B10-M52-... |      |      | 62 |      |    |     |

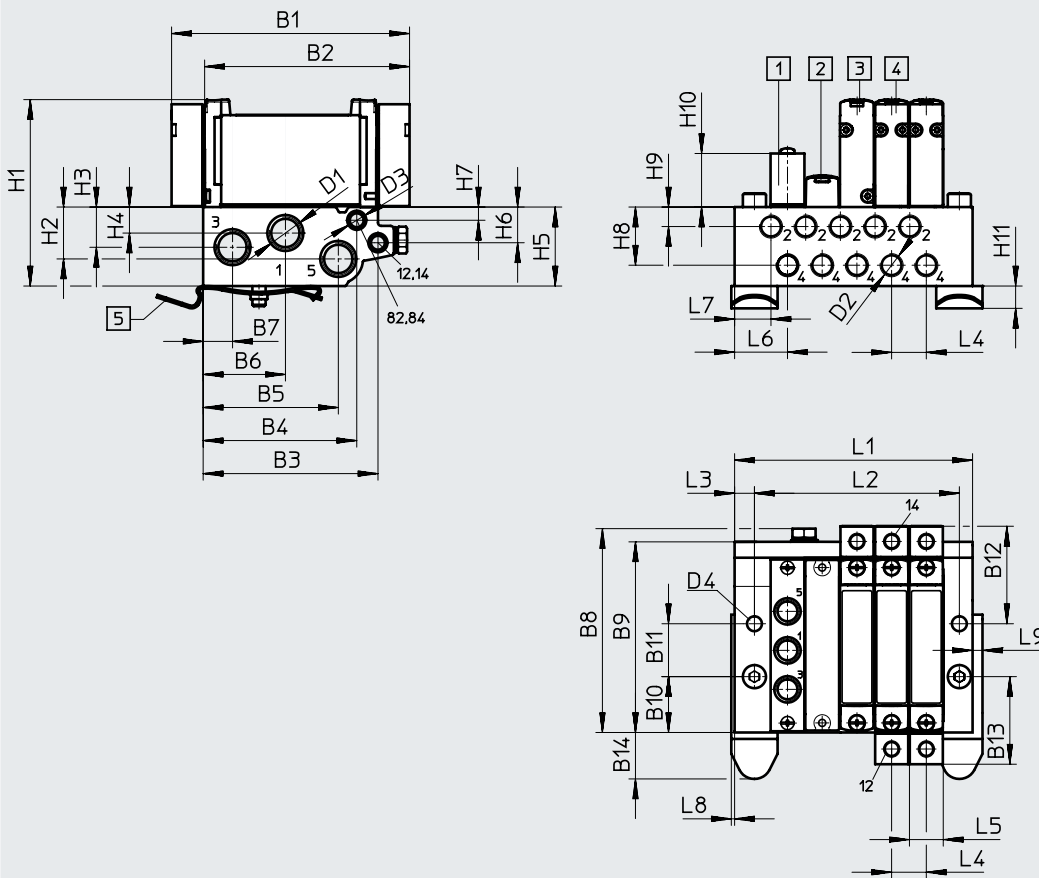
## Manifold assembly

Sub-base valve for manifold assembly  
M5 or M7 connection



### Dimensions

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



- [1] Supply plate VABF-L1-10-P3A4-M5
- [2] Cover plate VABB-L1-10-W
- [3] Pneumatic valve, monostable, VUWG-B10-M52
- [4] Pneumatic valve, bistable, VUWG-B10
- [5] H-rail mounting (two M4x30 screws to DIN 912 are required)

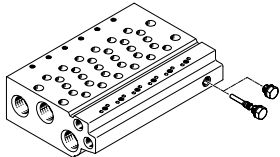
| Type           | B1 | B2 | B3   | B4   | B5   | B6   | B7  | B8 | B9   | B10  | B11 | B12  |
|----------------|----|----|------|------|------|------|-----|----|------|------|-----|------|
| VABM-L1-...G18 | 72 | 62 | 52.9 | 46.5 | 40.9 | 24.9 | 8.9 | 62 | 57.7 | 16.9 | 16  | 29.5 |

| Type           | B13  | B14  | D1   | D2 | D3 | D4  | H1   | H2   | H3   | H4  | H5   | H6   |
|----------------|------|------|------|----|----|-----|------|------|------|-----|------|------|
| VABM-L1-...G18 | 26.5 | 14.1 | G1/8 | M5 | M5 | 4.5 | 56.4 | 15.7 | 12.2 | 7.9 | 23.9 | 10.8 |

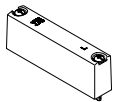

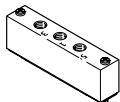
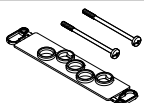
| Type           | H7 | H8   | H9  | H10  | H11 | L3 | L4   | L5   | L6 | L7 | L8 | L9 | L15 |
|----------------|----|------|-----|------|-----|----|------|------|----|----|----|----|-----|
| VABM-L1-...G18 | 4  | 17.6 | 5.9 | 16.2 | 6.8 | 4  | 10.5 | 10.3 | 16 | 11 | 1  | 3  | 10  |

| Valve positions | 2    | 3  | 4    | 5  | 6    | 7   | 8     | 9   | 10    | 12    | 14    | 16    | 22    |
|-----------------|------|----|------|----|------|-----|-------|-----|-------|-------|-------|-------|-------|
| L1 [mm]         | 48.5 | 59 | 69.5 | 80 | 90.5 | 101 | 111.5 | 122 | 132.5 | 153.5 | 174.5 | 195.5 | 258.5 |
| L2 [mm]         | 30.5 | 41 | 51.5 | 62 | 72.5 | 83  | 93.5  | 104 | 114.5 | 135.5 | 156.5 | 177.5 | 240.5 |

## Ordering data

| Technical data – Manifold rails <sup>1)</sup>                                    | Connection |         |              | CRC <sup>2)</sup> | Material <sup>3)</sup>  | Operating pressure [bar] | Max. tightening torque for assembly [Nm] |        |      |
|--|------------|---------|--------------|-------------------|-------------------------|--------------------------|--|--------|------|
|  | 2, 4       | 1, 3, 5 | 12/14, 82/84 |                   |                         |                          | Valve                                    | H-rail | Wall |
|  | M5 or M7   | G1/8    | M5           | 2                 | Wrought aluminium alloy | -0.9 ... 10              | 0.45                                     | 1.5    | 3    |

- 1) Blanking plugs are included with the manifold rail.
- 2) Corrosion resistance class CRC 2 to Festo standard FN 940070  
Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.
- 3) Information on materials: RoHS-compliant.

| Ordering data – Accessories   | Description                                     | Part no.  | Type   |
|---|---|---|--|
| Data sheets → Internet: vabb  |   |   |  |
| <b>Cover plate</b><br>    | For manifold rail 10W/10HW, sub-base valves     | Incl. screws and seal<br><b>566495</b>                                      | <b>VABB-L1-10-W</b>                                    |
| Data sheets → Internet: vabd  |   |   |  |
| <b>Separator</b><br>     | For manifold rail 10W and 10HW, sub-base valves | Separator for pressure zones<br><b>569994</b>                               | <b>VABD-6-B</b>  |
| Data sheets → Internet: vabf  |   |   |  |
| <b>Supply plate</b><br> | For manifold rail 10W<br>For manifold rail 10HW | Incl. screws and seal<br><b>569991</b><br><b>569992</b>                     | <b>VABF-L1-10-P3A4-M5</b><br><b>VABF-L1-10-P3A4-M7</b> |
| Data sheets → Internet: vabd  |   |   |  |
| <b>Seals</b><br>        | For sub-base valves B10                         | Delivery quantity: 10 sets (each with 2 screws and 1 seal)<br><b>566674</b> | <b>VABD-L1-10B-S-M7</b>                                |

## Data sheet


## Function

2x3/2C, 2x3/2U, 2x3/2H

5/2-way, monostable

5/2-way, bistable

5/3C, 5/3U, 5/3E

-  - Width 14 mm-  - Flow rate  
410 ... 580 l/min

| General technical data                       |         | T32-A                 |                 |                 | T32-M           |                 |                 | M52-A    | B52 | M52-M | P53             |                 |                 |
|--|---------|-----------------------|-----------------|-----------------|-----------------|-----------------|-----------------|----------|-----|-------|-----------------|-----------------|-----------------|
| Valve function                               |         | C <sup>1)</sup>       | U <sup>2)</sup> | H <sup>4)</sup> | C <sup>1)</sup> | U <sup>2)</sup> | H <sup>4)</sup> | -        | -   | -     | C <sup>1)</sup> | U <sup>2)</sup> | E <sup>3)</sup> |
| Normal position                              |         |                       |                 |                 |                 |                 |                 |          |     |       |                 |                 |                 |
| Pneumatic spring return                      |         | Yes                   |                 |                 | No              |                 |                 | Yes      | -   | No    | No              |                 |                 |
| Mechanical spring return                     |         | No                    |                 |                 | Yes             |                 |                 | No       | -   | Yes   | Yes             |                 |                 |
| Vacuum operation at port 1                   |         | No                    |                 |                 | Yes             |                 |                 | No       | Yes |       |                 |                 |                 |
| Vacuum operation at port 3/5                 |         | Yes                   |                 |                 |                 |                 |                 |          |     |       |                 |                 |                 |
| Design                                       |         | Piston spool          |                 |                 |                 |                 |                 |          |     |       |                 |                 |                 |
| Sealing principle                            |         | Soft                  |                 |                 |                 |                 |                 |          |     |       |                 |                 |                 |
| Actuation type                               |         | Pneumatic             |                 |                 |                 |                 |                 |          |     |       |                 |                 |                 |
| Type of control                              |         | Direct                |                 |                 |                 |                 |                 |          |     |       |                 |                 |                 |
| Pneumatic spring supply                      |         | External              |                 |                 | -               |                 |                 | External | -   | -     | -               |                 |                 |
| Exhaust air function                         |         | Can be throttled      |                 |                 |                 |                 |                 |          |     |       |                 |                 |                 |
| Type of mounting                             |         | On manifold rail      |                 |                 |                 |                 |                 |          |     |       |                 |                 |                 |
| Mounting position                            |         | Any                   |                 |                 |                 |                 |                 |          |     |       |                 |                 |                 |
| Standard nominal flow rate                   | [l/min] | 540                   | 510             | 540             | 430             | 410             |                 | 580      |     |       | 540             | 510             |                 |
| Switching time on/off                        | [ms]    | 6/19                  |                 |                 | 9/13            |                 |                 | 12/22    | -   | 12/32 | 8/30            |                 |                 |
| Changeover time                              | [ms]    | -                     |                 |                 | -               |                 |                 |          | 6   | -     | 16              |                 |                 |
| Width  | [mm]    | 14                    |                 |                 |                 |                 |                 |          |     |       |                 |                 |                 |
| Connection                                   | 1, 3, 5 | G1/4 in manifold rail |                 |                 |                 |                 |                 |          |     |       |                 |                 |                 |
|  | 2, 4    | G1/8 in manifold rail |                 |                 |                 |                 |                 |          |     |       |                 |                 |                 |
|  | 12, 14  | M5                    |                 |                 |                 |                 |                 |          |     |       |                 |                 |                 |
| Product weight                               | [g]     | 83                    |                 |                 | 83              |                 |                 | 75       | 81  |       |                 |                 |                 |
| Corrosion resistance class CRC <sup>5)</sup> |         | 2                     |                 |                 |                 |                 |                 |          |     |       |                 |                 |                 |

1) C = Normally closed

2) U = Normally open/mid-position pressurised

3) E = Normally exhausted

4) H = 2x 3/2-way valve in one housing with 1x normally closed and 1x normally open

5) Corrosion resistance class CRC 2 to Festo standard FN 940070

Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.

## Data sheet

| Operating and environmental conditions |  |                     |                     |                     |             |                     |             |
|--|--|---------------------|---------------------|---------------------|-------------|---------------------|-------------|
| Valve function                         |  | T32-A <sup>2)</sup> | T32-M <sup>3)</sup> | M52-A <sup>2)</sup> | B52         | M52-M <sup>3)</sup> | P53         |
| Operating medium                       | Compressed air to ISO 8573-1:2010 [7:4:4]  |                     |                     |                     |             |                     |             |
| Note on the operating/pilot medium     | Lubricated operation possible (in which case lubricated operation will always be required) |                     |                     |                     |             |                     |             |
| Operating pressure                     | [bar]  | 1.5 ... 10          | -0.9 ... 10         | 2.5 ... 10          | -0.9 ... 10 | -0.9 ... 8          | -0.9 ... 10 |
| Pilot pressure <sup>1)</sup>           | [bar]  | 1.5 ... 10          | 3 ... 10            | 2.5 ... 10          | 1.5 ... 10  | 3 ... 10            |             |
| Ambient temperature                    | [°C]   | -5 ... +60          |                     |                     |             |                     |             |
| Temperature of medium                  | [°C]   | -5 ... +50          |                     |                     |             |                     |             |

1) Note operating pressure/pilot pressure graph → page 4

2) Pneumatic spring

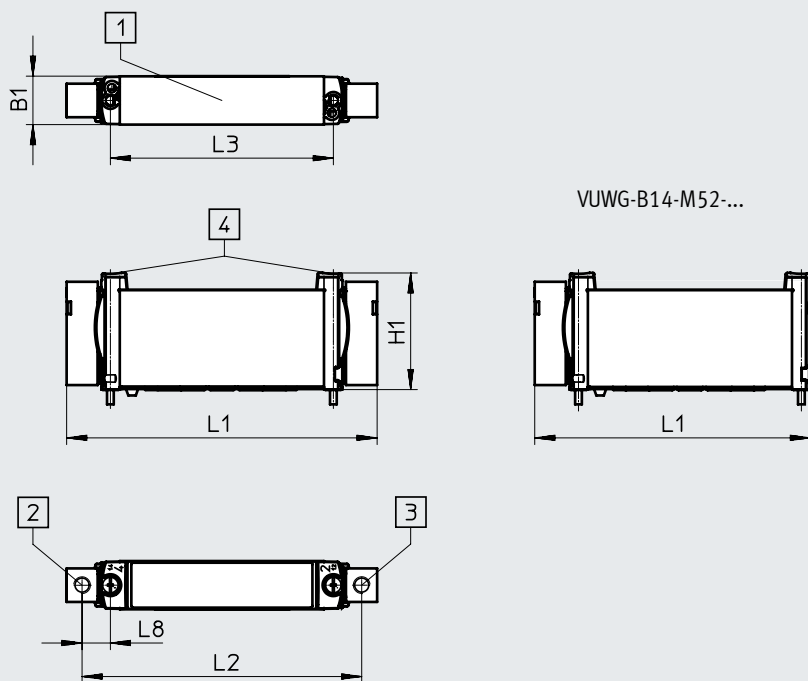
3) Mechanical spring

| Information on materials |                         |
|--------------------------|-------------------------|
| Housing                  | Wrought aluminium alloy |
| Seals                    | HNBR, NBR               |
| Note on materials        | RoHS-compliant          |

### Dimensions

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

2x3/2-way, 5/2-way and 5/3-way valve



[1] Ports 1, 2, 3, 4, 5

[2] Port 14: M5

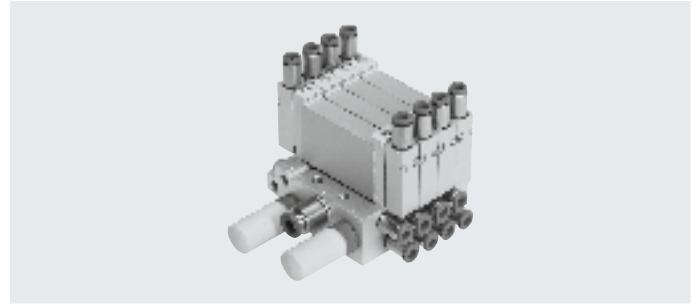
[3] Port 12: M5

[4] Retaining screw M2.5

| Type             | B1   | H1   | L1   | L2   | L3   | L8  |
|------------------|------|------|------|------|------|-----|
| VUWG-B14-...     | 14.4 | 34.8 | 92.6 | 83.4 | 66.5 | 8.5 |
| VUWG-B14-M52-... |      |      | 82.3 |      |      |     |

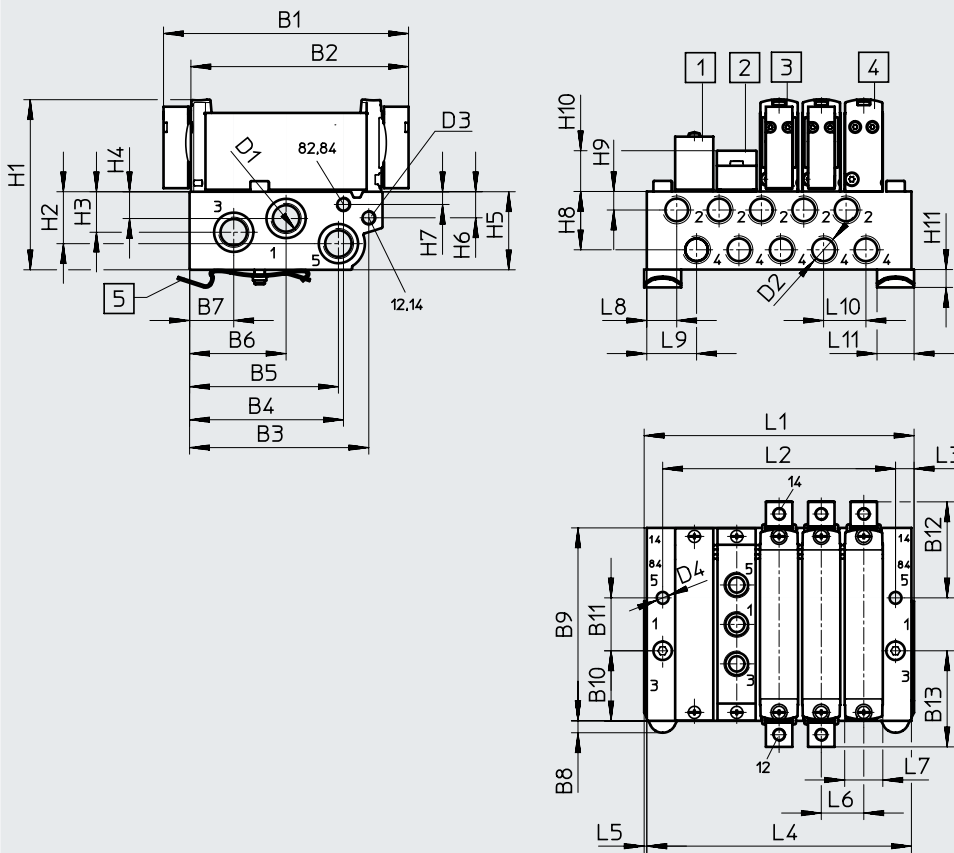
## Manifold assembly

Sub-base valve for manifold assembly  
Connection G1/8



### Dimensions

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



- [1] Cover plate VABB-L1-14
- [2] Supply plate VABF-L1-14-P3A4-G18
- [3] Pneumatic valve, bistable
- [4] Pneumatic valve, monostable
- [5] H-rail mounting (two M4x25 screws to DIN 912 are required)

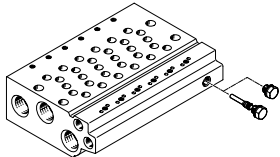
| Type                | B1   | B2   | B3   | B4   | B5   | B6   | B7   | B8  | B9   | B10  | B11 | B12  |
|---------------------|------|------|------|------|------|------|------|-----|------|------|-----|------|
| VUWG-B14 -...-F ... | 92.6 | 82.3 | 67.7 | 58.2 | 56.3 | 36.6 | 16.7 | 4.5 | 72.9 | 26.5 | 20  | 36.3 |

| Type                | B13  | D1   | D2   | D3 | D4    | H1   | H2   | H3   | H4   | H5   | H6  | H7  |
|---------------------|------|------|------|----|-------|------|------|------|------|------|-----|-----|
| VUWG-B14 -...-F ... | 36.3 | G1/4 | G1/8 | M5 | ∅ 4.5 | 64.3 | 19.6 | 15.3 | 10.1 | 29.5 | 9.8 | 4.8 |

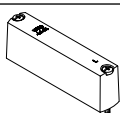

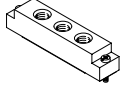

| Type                | H8   | H9 | H10  | H11 | L3 | L5 | L6 | L7   | L8   | L9   | L10 | L11 |
|---------------------|------|----|------|-----|----|----|----|------|------|------|-----|-----|
| VUWG-B14 -...-F ... | 22.1 | 7  | 15.4 | 6.8 | 6  | 1  | 16 | 14.4 | 11.3 | 18.5 | 16  | 14  |

| Valve positions | 2    | 3    | 4    | 5     | 6     | 7     | 8     | 9     | 10    | 12    | 14    | 16    |
|-----------------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| L1 [mm]         | 56.3 | 72.3 | 88.3 | 104.3 | 120.3 | 136.3 | 152.3 | 168.3 | 184.3 | 216.3 | 248.3 | 280.3 |
| L2 [mm]         | 40   | 56   | 72   | 88    | 104   | 120   | 136   | 152   | 168   | 200   | 232   | 264   |
| L4 [mm]         | 54.3 | 70.3 | 86.3 | 102.3 | 118.3 | 134.3 | 150.3 | 166.3 | 182.3 | 214.3 | 246.6 | 278.3 |

## Ordering data

| Technical data – Manifold rails <sup>1)</sup>                                    | Connection |         |              | CRC <sup>2)</sup> | Material <sup>3)</sup>  | Operating pressure [bar] | Max. tightening torque for assembly [Nm] |        |      |
|--|------------|---------|--------------|-------------------|-------------------------|--------------------------|--|--------|------|
|  | 2, 4       | 1, 3, 5 | 12/14, 82/84 |                   |                         |                          | Valve                                    | H-rail | Wall |
|  | G1/8       | G1/4    | M5           | 2                 | Wrought aluminium alloy | -0.9 ... 10              | 0.65                                     | 1.5    | 3    |

- 1) Blanking plugs are included with the manifold rail.
- 2) Corrosion resistance class CRC 2 to Festo standard FN 940070  
Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.
- 3) Information on materials: RoHS-compliant.

| Ordering data – Accessories  |  |  |               |                            |
|--|--|--|---------------|----------------------------|
|  | Description                            |  | Part no.      | Type                       |
| Data sheets → Internet: vabb   |  |  |               |                            |
| <b>Cover plate</b>   |  |  |               |                            |
|    | For manifold rail 14W, sub-base valves | Incl. screws and seal                                      | <b>569989</b> | <b>VABB-L1-14</b>          |
| Data sheets → Internet: vabd   |  |  |               |                            |
| <b>Separator</b>   |  |  |               |                            |
|   | For manifold rail 14W, sub-base valves | Separator for pressure zones                               | <b>569996</b> | <b>VABD-10-B</b>           |
| Data sheets → Internet: vabf   |  |  |               |                            |
| <b>Supply plate</b>  |  |  |               |                            |
|  | For manifold rail 14W                  | Incl. screws and seal                                      | <b>569993</b> | <b>VABF-L1-14-P3A4-G18</b> |
| Data sheets → Internet: vabd   |  |  |               |                            |
| <b>Seals</b>   |  |  |               |                            |
|  | For sub-base valves B14                | Delivery quantity: 10 sets (each with 2 screws and 1 seal) | <b>566676</b> | <b>VABD-L1-14B-S-G18</b>   |



## Data sheet


## Function

2x3/2C, 2x3/2U, 2x3/2H

5/2-way, monostable

5/2-way, bistable

5/3C, 5/3U, 5/3E

-  - Width 18 mm-  - Flow rate  
900 ...1000 l/min

| General technical data                       |         | T32-A                 |                 |                 | T32-M           |                 |                 | M52-R             | B52 | M52-M | P53             |                 |                 |       |
|--|---------|-----------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-------------------|-----|-------|-----------------|-----------------|-----------------|-------|
| Valve function                               |         | C <sup>1)</sup>       | U <sup>2)</sup> | H <sup>4)</sup> | C <sup>1)</sup> | U <sup>2)</sup> | H <sup>4)</sup> | -                 | -   | -     | C <sup>1)</sup> | U <sup>2)</sup> | E <sup>3)</sup> |       |
| Normal position                              |         |                       |                 |                 |                 |                 |                 | -                 | -   | -     |                 |                 |                 |       |
| Pneumatic spring return                      |         | Yes                   |                 |                 | No              |                 |                 | Yes <sup>5)</sup> | -   | No    | No              |                 |                 |       |
| Mechanical spring return                     |         | No                    |                 |                 | Yes             |                 |                 | Yes <sup>5)</sup> | -   | Yes   | Yes             |                 |                 |       |
| Vacuum operation at port 1                   |         | No                    |                 |                 | Yes             |                 |                 | No                | Yes |       |                 |                 |                 |       |
| Vacuum operation at port 3/5                 |         | Yes                   |                 |                 |                 |                 |                 |                   |     |       |                 |                 |                 |       |
| Design                                       |         | Piston spool          |                 |                 |                 |                 |                 |                   |     |       |                 |                 |                 |       |
| Sealing principle                            |         | Soft                  |                 |                 |                 |                 |                 |                   |     |       |                 |                 |                 |       |
| Actuation type                               |         | Pneumatic             |                 |                 |                 |                 |                 |                   |     |       |                 |                 |                 |       |
| Type of control                              |         | Direct                |                 |                 |                 |                 |                 |                   |     |       |                 |                 |                 |       |
| Pneumatic spring supply                      |         | External              |                 |                 | -               |                 |                 | External          | -   | -     | -               |                 |                 |       |
| Exhaust air function                         |         | Can be throttled      |                 |                 |                 |                 |                 |                   |     |       |                 |                 |                 |       |
| Type of mounting                             |         | On manifold rail      |                 |                 |                 |                 |                 |                   |     |       |                 |                 |                 |       |
| Mounting position                            |         | Any                   |                 |                 |                 |                 |                 |                   |     |       |                 |                 |                 |       |
| Standard nominal flow rate                   | [l/min] | 900                   |                 |                 |                 |                 |                 | 1000              |     |       | 950             |                 |                 |       |
| Switching time on/off                        | [ms]    | 12/36                 |                 |                 | 17/25           |                 |                 | 16/40             |     |       | -               | 12/59           |                 | 17/69 |
| Changeover time                              | [ms]    | -                     |                 |                 |                 |                 |                 |                   |     |       | 12              | -               |                 | 34    |
| Width  | [mm]    | 18                    |                 |                 |                 |                 |                 |                   |     |       |                 |                 |                 |       |
| Connection                                   | 1, 3, 5 | G3/8 in manifold rail |                 |                 |                 |                 |                 |                   |     |       |                 |                 |                 |       |
|  | 2.4     | G1/4 in manifold rail |                 |                 |                 |                 |                 |                   |     |       |                 |                 |                 |       |
|  | 12, 14  | M5                    |                 |                 |                 |                 |                 |                   |     |       |                 |                 |                 |       |
| Product weight                               | [g]     | 83                    |                 |                 | 83              |                 |                 | 75                | 81  |       |                 |                 |                 |       |
| Corrosion resistance class CRC <sup>6)</sup> |         | 2                     |                 |                 |                 |                 |                 |                   |     |       |                 |                 |                 |       |

1) C = Normally closed

2) U = Normally open/mid-position pressurised

3) E = Normally exhausted

4) H = 2x 3/2-way valve in one housing with 1x normally closed and 1x normally open

5) Combined reset method

6) Corrosion resistance class CRC 2 to Festo standard FN 940070

Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.

## Data sheet

| Operating and environmental conditions |  |                     |                     |                     |             |                           |
|--|--|---------------------|---------------------|---------------------|-------------|---------------------------|
| Valve function                         |  | T32-A <sup>2)</sup> | T32-M <sup>3)</sup> | M52-R <sup>4)</sup> | B52         | M52-M <sup>3)</sup>   P53 |
| Operating medium                       | Compressed air to ISO 8573-1:2010 [7:4:4]  |                     |                     |                     |             |                           |
| Note on the operating/pilot medium     | Lubricated operation possible (in which case lubricated operation will always be required) |                     |                     |                     |             |                           |
| Operating pressure                     | [bar]  | 1.5 ... 10          | -0.9 ... 10         | 2.5 ... 10          | -0.9 ... 10 | -0.9 ... 8   -0.9 ... 10  |
| Pilot pressure <sup>1)</sup>           | [bar]  | 1.5 ... 10          | 3 ... 10            | 2.5 ... 10          | 1.5 ... 10  | 3 ... 10                  |
| Ambient temperature                    | [°C]   | -5 ... +60          |                     |                     |             |                           |
| Temperature of medium                  | [°C]   | -5 ... +50          |                     |                     |             |                           |

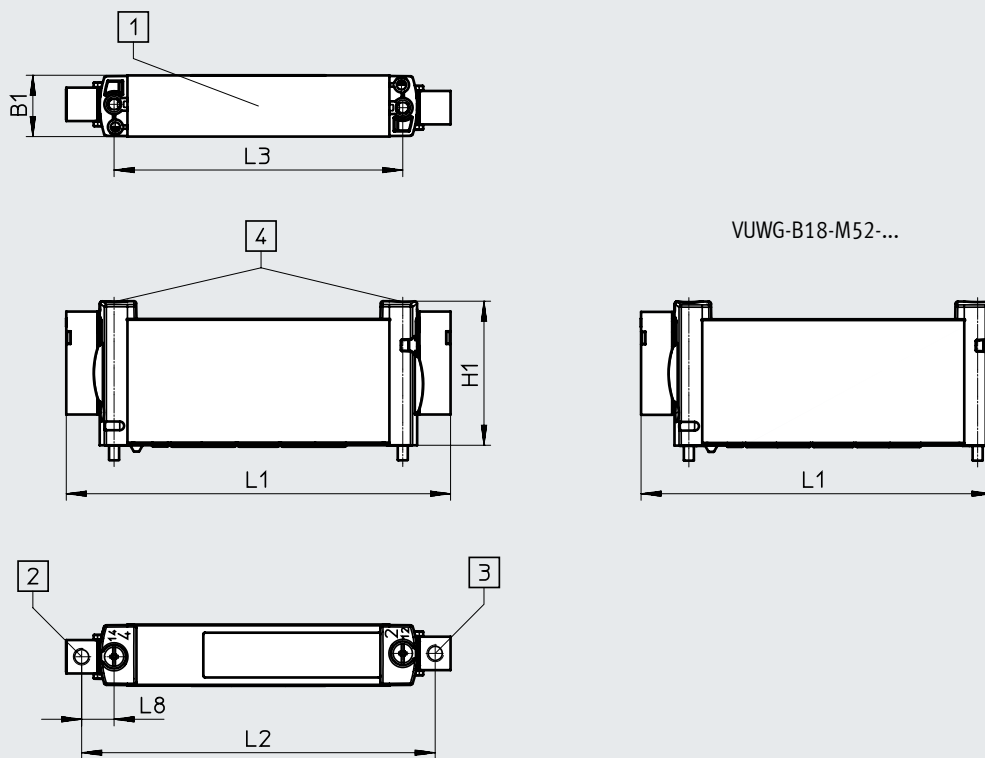
- 1) Note operating pressure/pilot pressure graph → page 4
- 2) Pneumatic spring
- 3) Mechanical spring
- 4) Mixed, pneumatic/mechanical spring

| Information on materials |                         |
|--------------------------|-------------------------|
| Housing                  | Wrought aluminium alloy |
| Seals                    | HNBR, NBR               |
| Note on materials        | RoHS-compliant          |

### Dimensions

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

2x3/2-way, 5/2-way and 5/3-way valve



[1] Ports 1, 2, 3, 4, 5

[2] Port 14: M5

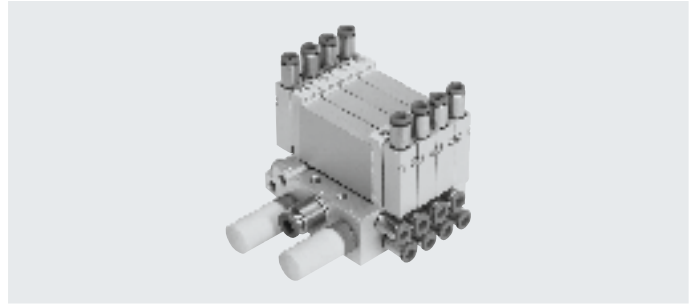
[4] Retaining screw M3

[3] Port 12: M5

| Type             | B1   | H1   | L1  | L2   | L3   | L8  |
|------------------|------|------|-----|------|------|-----|
| VUWG-B18-...     | 18.3 | 43.1 | 115 | 96.1 | 86.4 | 9.7 |
| VUWG-B18-M52-... |      |      | 105 |      |      |     |

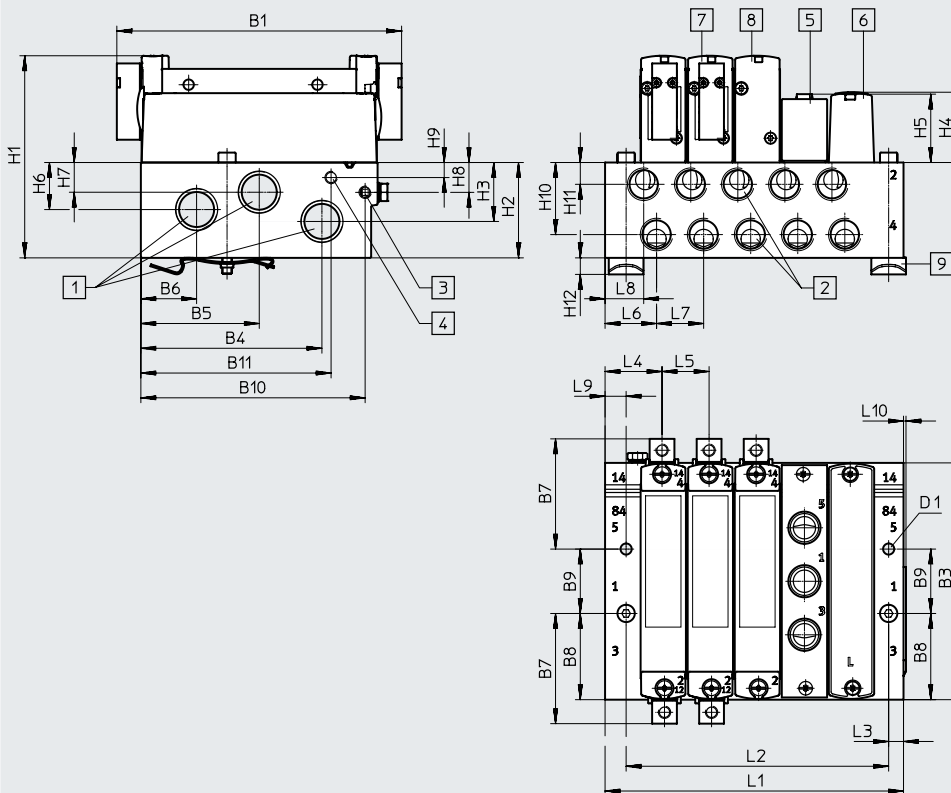
## Manifold assembly

Sub-base valve for manifold assembly  
Connection G1/8



### Dimensions

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



- [1] Ports 1, 3 and 5: G3/8 (at both ends)
- [2] Ports 2 and 4: G1/4
- [3] Port 12/14 for external pilot air: M5
- [4] Port 82/84 for external pilot air: M5
- [5] Supply plate VABF-L1-18-P3A4-G14
- [6] Cover plate VABB-L1-18
- [7] Pneumatic valve, bistable
- [8] Pneumatic valve, monostable
- [9] H-rail mounting (two M4x40 screws to DIN 912 are required for mounting)

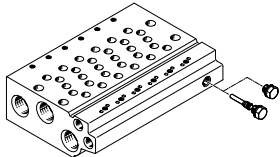
| Type                | B1  | B3   | B4   | B5   | B6   | B7   | B8   | B9 | B10  | B11  | D1  | H1   |
|---------------------|-----|------|------|------|------|------|------|----|------|------|-----|------|
| VUWG-B14 -...-F ... | 115 | 95.6 | 73.1 | 47.8 | 22.5 | 51.7 | 34.8 | 26 | 90.6 | 76.8 | 4.5 | 81.6 |

| Type                | H2   | H3   | H4   | H5   | H6 | H7 | H8   | H9  | H10  | H11 | H12 | L3 |
|---------------------|------|------|------|------|----|----|------|-----|------|-----|-----|----|
| VUWG-B14 -...-F ... | 38.5 | 23.8 | 28.4 | 27.6 | 19 | 12 | 12.1 | 6.1 | 29.1 | 8.8 | 6.5 | 6  |

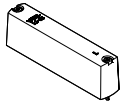

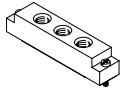
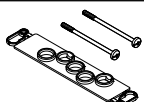
| Type                | L4 | L5 | L6   | L7 | L8   | L9  | L10 |
|---------------------|----|----|------|----|------|-----|-----|
| VUWG-B14 -...-F ... | 23 | 19 | 20.8 | 19 | 15.6 | 8.5 | 1   |

| Valve positions | 2    | 3    | 4     | 5     | 6     | 7     | 8     | 9     | 10    | 12    | 14    | 16    |
|-----------------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| L1 [mm]         | 63.5 | 82.5 | 101.5 | 120.5 | 139.5 | 158.5 | 177.5 | 196.5 | 215.5 | 253.5 | 291.5 | 329.5 |
| L2 [mm]         | 49   | 68   | 87    | 106   | 125   | 144   | 163   | 182   | 201   | 239   | 277   | 315   |





## Ordering data

| Technical data – Manifold rails <sup>1)</sup>                                    | Connection |         |              | CRC <sup>2)</sup> | Material <sup>3)</sup>  | Operating pressure [bar] | Max. tightening torque for assembly [Nm] |        |      |
|--|------------|---------|--------------|-------------------|-------------------------|--------------------------|--|--------|------|
|  | 2, 4       | 1, 3, 5 | 12/14, 82/84 |                   |                         |                          | Valve                                    | H-rail | Wall |
|  | G1/4       | G3/8    | M5           | 2                 | Wrought aluminium alloy | -0.9 ... 10              | 0.65                                     | 1.5    | 3    |

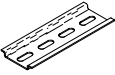
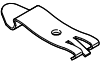

- 1) Blanking plugs are included with the manifold rail.
- 2) Corrosion resistance class CRC 2 to Festo standard FN 940070  
Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.
- 3) Information on materials: RoHS-compliant.

| Ordering data – Accessories  |  |  |               |                            |
|--|--|--|---------------|----------------------------|
|  | Description                            |  | Part no.      | Type                       |
| Data sheets → Internet: vabb   |  |  |               |                            |
| <b>Cover plate</b>   |  |  |               |                            |
|    | For manifold rail 18W, sub-base valves | Incl. screws and seal                                      | <b>574482</b> | <b>VABB-L1-18</b>          |
| Data sheets → Internet: vabd   |  |  |               |                            |
| <b>Separator</b>   |  |  |               |                            |
|   | For manifold rail 18W, sub-base valves | Separator for pressure zones                               | <b>574483</b> | <b>VABD-14-B</b>           |
| Data sheets → Internet: vabf   |  |  |               |                            |
| <b>Supply plate</b>  |  |  |               |                            |
|  | For manifold rail 18W                  | Incl. screws and seal                                      | <b>574481</b> | <b>VABF-L1-18-P3A4-G14</b> |
| Data sheets → Internet: vabd   |  |  |               |                            |
| <b>Seals</b>   |  |  |               |                            |
|  | For sub-base valves B18                | Delivery quantity: 10 sets (each with 2 screws and 1 seal) | <b>574480</b> | <b>VABD-L1-18B-S-G14</b>   |

## Accessories

| Ordering data   |   | Description                         | Part no.   | Type                       |
|---|---|-------------------------------------|------------|----------------------------|
| <b>Silencer</b>   |   |                                     |            | Data sheets → Internet: u  |
|    | For thread M5   | 1 piece                             | 165003     | UC-M5                      |
|   | For thread M7   |                                     | 161418     | UC-M7                      |
|   | For thread G1/8   | 50 pieces                           | 534222     | U-1/8-50                   |
|   |   | 1 piece                             | 161419     | UC-1/8                     |
|   | For thread G1/4   | 20 pieces                           | 534220     | UC-1/4-20                  |
|   |   |                                     | 534223     | U-1/4-20                   |
| <b>Fittings</b>   |   |                                     |            | Data sheets → Internet: qs |
|    | For tubing Ø 3 mm   | 10 pieces                           | 133003     | QSM-M5-3-I-R               |
|   | For tubing Ø 4 mm   |                                     | 133004     | QSM-M5-4-I-R               |
|   | For tubing Ø 6 mm   |                                     | 133005     | QSM-M5-6-I-R               |
|   | For tubing Ø 6 mm   |                                     | 133007     | QSM-M7-6-I-R               |
|   | For tubing Ø 3 mm   |                                     | 153313     | QSM-M5-3-I                 |
|   | For tubing Ø 4 mm   |                                     | 153315     | QSM-M5-4-I                 |
|   | For tubing Ø 4 mm   |                                     | 153319     | QSM-M7-4-I                 |
|   | For tubing Ø 4 mm   | 10 pieces                           | 186106     | QS-G1/8-4-I                |
|   | For tubing Ø 6 mm   |                                     | 186107     | QS-G1/8-6-I                |
|   | For tubing Ø 8 mm   |                                     | 186109     | QS-G1/8-8-I                |
|   | For tubing Ø 8 mm   | 20 pieces                           | 130995     | QS-B-1/4-8-I-20            |
|   | For tubing Ø 10 mm  |                                     | 132152     | QS-B-1/4-10-I-20           |
|   | For tubing Ø 12 mm  |                                     | 132153     | QS-B-1/4-12-I-20           |
|   | For tubing Ø 10 mm  |                                     | 132151     | QS-B-1/8-10-I-20           |
|   | For tubing Ø 6 mm   | 10 pieces                           | 186117     | QSL-G1/8-6                 |
|   | For tubing Ø 8 mm   |                                     | 186119     | QSL-G1/8-8                 |
|   | For tubing Ø 8 mm   | 20 pieces                           | 130931     | QSL-B-1/4-8-20             |
|   | For tubing Ø 10 mm  |                                     | 132127     | QSL-B-1/4-10-20            |
|   | For tubing Ø 12 mm  |                                     | 132128     | QSL-B-1/4-12-20            |
|   | For tubing Ø 10 mm  |                                     | 132126     | QSL-B-1/8-10-20            |
|   | For tubing Ø 6 mm   | 10 pieces                           | 186128     | QSL-G1/8-6                 |
|   | For tubing Ø 8 mm   |                                     | 186130     | QSL-G1/8-8                 |
|   | For tubing Ø 3 mm   | 10 pieces                           | 153331     | QSML-M5-3                  |
|   | For tubing Ø 4 mm   |                                     | 153333     | QSML-M5-4                  |
|   | For tubing Ø 4 mm   |                                     | 186352     | QSML-M7-4                  |
| For tubing Ø 3 mm   |   | 130838                              | QSMLL-M5-3 |                            |
| For tubing Ø 4 mm   |   | 153339                              | QSMLL-M5-4 |                            |
| For tubing Ø 4 mm   |   | 186354                              | QSMLL-M7-4 |                            |
| <b>Blanking plug</b>  |   |                                     |            | Data sheets → Internet: b  |
|  | For thread M5   | 10 pieces                           | 174308     | B-M5-B                     |
|   | For thread M7   |                                     | 174309     | B-M7                       |
|   | For thread G1/8   |                                     | 3568       | B-1/8                      |
|   | For thread G1/4   |                                     | 3569       | B-1/4                      |
| <b>Compact blanking plug, for valve</b>   |   |                                     |            | Data sheets → Internet: b  |
|  | For sealing a connection (valve requires a blanking plug with a low screw-in depth) | For valve size 14 (G1/8), 10 pieces | 578406     | NPQH-BK-G18-P10            |
|   |   | For valve size 18 (G1/4), 10 pieces | 578407     | NPQH-BK-G14-P10            |

## Accessories

| Ordering data  |   | Description                  | Part no.      | Type               |                |                     |
|--|---|------------------------------|---------------|--------------------|----------------|---------------------|
| <b>H-rail</b>  |   | Data sheets → Internet: nrh  |               |                    |                |                     |
|  | To EN 60715, 35 x 7.5 (WxH)   | 2 m                          | <b>35430</b>  | <b>NRH-35-2000</b> |                |                     |
| <b>H-rail mounting</b>   |   | Data sheets → Internet: vame |               |                    |                |                     |
|  | –   | 2 pieces                     | <b>569998</b> | <b>VAME-T-M4</b>   |                |                     |
| <b>Flow control valve</b>  |   |                              |               |                    |                |                     |
|  | For M5 valves, for setting the flow rate during pressurisation and exhausting (10 pieces) | Flow rate: 9.6 l/min         | b value: 0.5  | C value: 0.04      | <b>8025709</b> | <b>VFFG-T-M5-5</b>  |
|  |   | Flow rate: 14.6 l/min        | b value: 0.5  | C value: 0.05      | <b>8025710</b> | <b>VFFG-T-M5-6</b>  |
|  |   | Flow rate: 19.1 l/min        | b value: 0.5  | C value: 0.07      | <b>8025711</b> | <b>VFFG-T-M5-7</b>  |
|  |   | Flow rate: 26.1 l/min        | b value: 0.5  | C value: 0.10      | <b>8025712</b> | <b>VFFG-T-M5-8</b>  |
|  |   | Flow rate: 40.8 l/min        | b value: 0.5  | C value: 0.14      | <b>8025713</b> | <b>VFFG-T-M5-10</b> |
|  |   | Flow rate: 45.4 l/min        | b value: 0.5  | C value: 0.16      | <b>8025714</b> | <b>VFFG-T-M5-12</b> |
|  |   | Flow rate: 67.4 l/min        | b value: 0.5  | C value: 0.25      | <b>8025715</b> | <b>VFFG-T-M5-15</b> |