

## Proportional pressure regulator VPPI

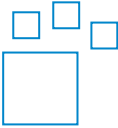
**FESTO**



Key features

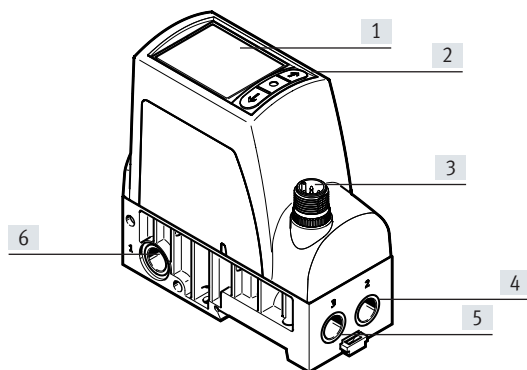
| Special characteristics                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"><li>• Three predefined regulator presets, as well as the option of a custom preset</li><li>• Low-noise</li><li>• Flexible</li><li>• Highly dynamic up to 30 Hz</li><li>• The max. frequency of 30 Hz protects the system</li></ul> | <ul style="list-style-type: none"><li>• Precise and stable: the powerful moving coil actuator also ensures that set-point value changes are quick, easy and precise</li><li>• Lots of pressure ranges</li><li>• Pressure regulation range: -0.1 ... 1.2 MPa</li><li>• PWM operation: the VPPI detects PWM signals generated by any machine controller and adjusts them automatically</li></ul> |

| Function                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>The valve VPPI is a directly actuated proportional pressure regulator that uses two proportional 2/2-way valves as a basis.</p> <p>The valve regulates a pneumatic pressure to an electronically defined value. This makes use of cascaded closed-loop control of pressure/motion and current.</p> | <p>Control is provided using an analogue current or voltage signal, or alternatively using a digital pattern (voltage version only) for adjustable setpoint values, or using a PWM signal (voltage version only).</p> |

| Ordering data – Product options                                                  |                                                                                 |                                                                                                                      |          |      |
|----------------------------------------------------------------------------------|---------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|----------|------|
|  | Configurable product                                                            | The configurator can be found at                                                                                     | Part no. | Type |
|                                                                                  | This product and all its product options can be ordered using the configurator. | → <a href="http://www.festo.com/catalogue/...">www.festo.com/catalogue/...</a><br>Enter the part number or the type. | 8074287  | VPPI |

## Key features

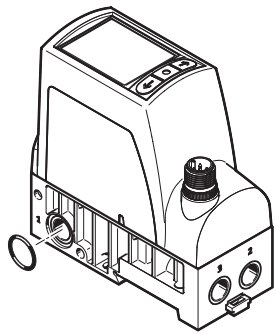
### Configuration



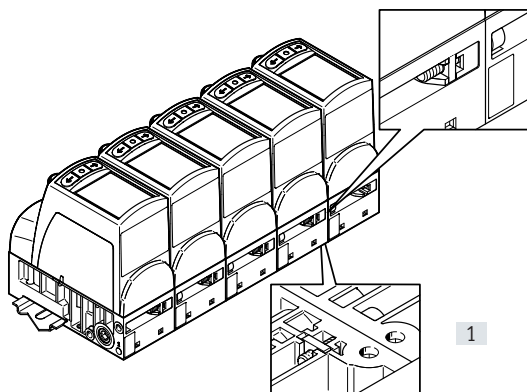
- [1] Display
- [2] Operating buttons display menu
- [3] Electrical connection, M12
- [4] Port 2, working air
- [5] Port 3, exhaust air
- [6] Port 1, compressed air

### Mounting

#### Linking of valves



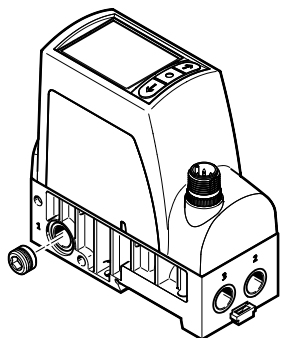
Up to five valves can be linked using connecting kit VAME-P18-K-P5. The connecting kit consists of two square nuts, two socket head screws and an O-ring.



- [1] The valves are connected on the underside using socket head screws and square nuts.
- [2] The valves are connected at the rear using socket head screws and square nuts.

## Key features

### Pressure zone separation

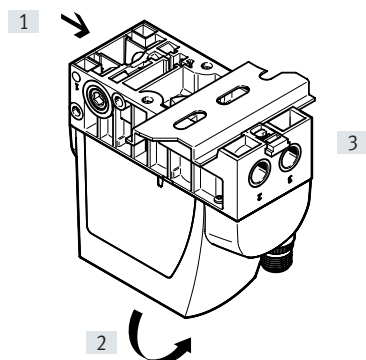


Linked valves can be divided into two pressure zones. To do this, duct 1 is closed on the corresponding side using a plug screw.

Plug screws for duct 1 can be ordered as accessories (VAME-P18-BP-G18-P5). In the case of pressure zone separation, the compressed air must be supplied from both sides.

### Mounting

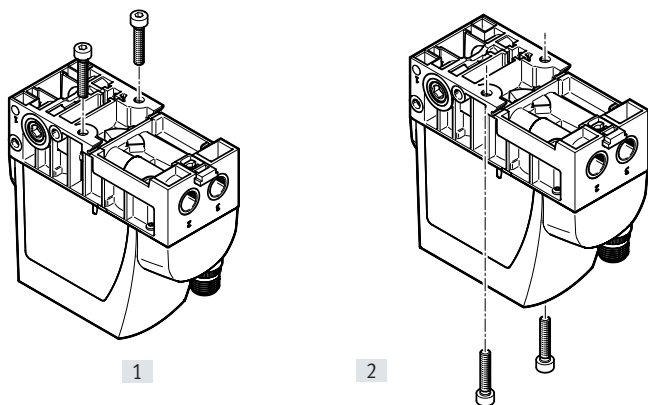
#### Via H-rail



The valve VPPI is hung onto the H-rail [1]. It is then swivelled onto the H-rail [2] and secured in place using the clamping piece [3].

Linked valves are mounted on the H-rail in the same way. The clamping pieces of the outer valves can be used to secure them in place.

#### Underneath the valve

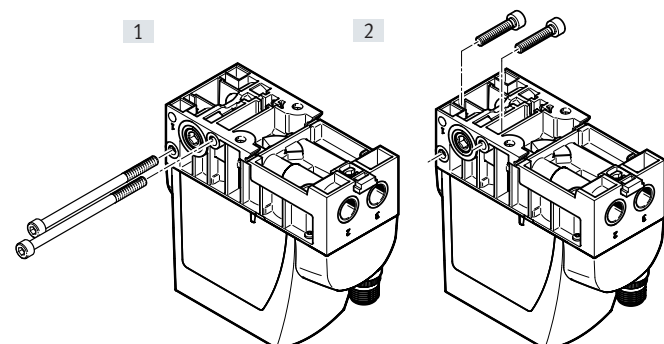


Individual mounting underneath:

- [1] Mounting using screws M4 and square nuts
- [2] Mounting using screws M4

Linked valves are mounted on the valve underside in the same way. Only the two outermost screws are used for mounting.

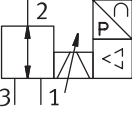
#### On the side



Individual mounting on the side:

- [1] Using through screws
- [2] Using internal screws

## Product range overview

| Function                        | Circuit symbol                                                                                                       | Type      | Valve function                                                                                                   | Pressure regulation range |          | Setpoint value input |              |
|---------------------------------|----------------------------------------------------------------------------------------------------------------------|-----------|------------------------------------------------------------------------------------------------------------------|---------------------------|----------|----------------------|--------------|
|                                 |                                                                                                                      |           |                                                                                                                  |                           |          | Voltage type         | Current type |
|                                 |                                                                                                                      |           |                                                                                                                  | [MPa]                     | [bar]    | 0 ... 10 V           | 4 ... 20 mA  |
| Proportional pressure regulator | Poppet valve with spring return<br> | VPPI-5L-3 | <ul style="list-style-type: none"> <li>3-way proportional pressure regulator</li> <li>Normally closed</li> </ul> | -0.1 ... 0                | -1 ... 0 | ■                    | ■            |
|                                 |                                                                                                                      |           |                                                                                                                  | -0.1 ... 0.1              | -1 ... 1 | ■                    | ■            |
|                                 |                                                                                                                      |           |                                                                                                                  | 0 ... 0.2                 | 0 ... 2  | ■                    | ■            |
|                                 |                                                                                                                      |           |                                                                                                                  | 0 ... 0.6                 | 0 ... 6  | ■                    | ■            |
|                                 |                                                                                                                      |           |                                                                                                                  | 0 ... 1                   | 0 ... 10 | ■                    | ■            |
|                                 |                                                                                                                      |           |                                                                                                                  | 0 ... 1.2                 | 0 ... 12 | ■                    | ■            |
|                                 |                                                                                                                      |           |                                                                                                                  |                           |          |                      |              |

## Type codes

|      |                                 |  |
|------|---------------------------------|--|
| 001  | Series                          |  |
| VPPI | Proportional-pressure regulator |  |

|     |                    |  |
|-----|--------------------|--|
| 002 | Nominal width [mm] |  |
| 5   | 5                  |  |

|     |                                |  |
|-----|--------------------------------|--|
| 003 | Directional control valve type |  |
| L   | In-line valve                  |  |

|     |                                |  |
|-----|--------------------------------|--|
| 004 | Valve function                 |  |
| 4   | 3/3-way valve, normally open   |  |
| 3   | 3/3-way valve, normally closed |  |

|     |                      |  |
|-----|----------------------|--|
| 005 | Pneumatic connection |  |
| G18 | G1/8                 |  |

|      |                                       |  |
|------|---------------------------------------|--|
| 006  | Lower pressure value of control range |  |
| 1V   | -1 bar                                |  |
| 0L   | 0 bar                                 |  |
| ...L | ... bar                               |  |

|      |                                       |  |
|------|---------------------------------------|--|
| 007  | Upper pressure value of control range |  |
| 0H   | 0 bar                                 |  |
| 1H   | 1 bar                                 |  |
| 2H   | 2 bar                                 |  |
| 6H   | 6 bar                                 |  |
| 10H  | 10 bar                                |  |
| 12H  | 12 bar                                |  |
| ...H | ... bar                               |  |

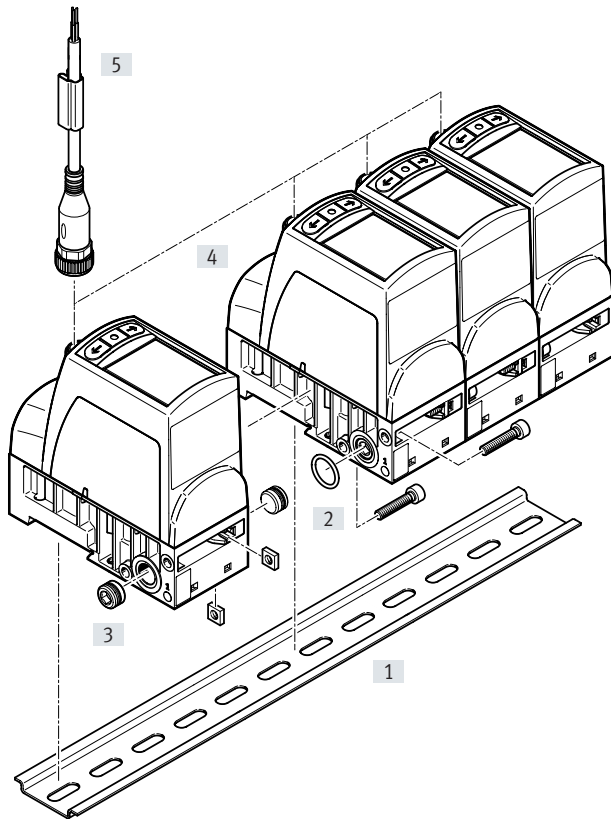
|     |                                      |  |
|-----|--------------------------------------|--|
| 008 | Setpoint input for individual valves |  |
| A4  | 4 ... 20 mA                          |  |
| V1  | 0 ... 10 V                           |  |

|     |                  |  |
|-----|------------------|--|
| 009 | Overall accuracy |  |
| S1  | 1 %              |  |

|     |                         |  |
|-----|-------------------------|--|
| 010 | Operator unit/interface |  |
|     | None                    |  |
| D   | Display                 |  |
| BT  | Bluetooth               |  |

|     |             |  |
|-----|-------------|--|
| 011 | Certificate |  |
|     | None        |  |
| T   | Test report |  |

## Peripherals overview



### Accessories

|     | Type/order code | Description                                                                                                        | → Page/Internet |
|-----|-----------------|--------------------------------------------------------------------------------------------------------------------|-----------------|
| [1] | NRH-35-2000     | DIN mounting rail, for a maximum of five proportional pressure regulators                                          | 17              |
| [2] | VAME-P18-K-P5   | Connecting kit, enables several proportional pressure regulators to be linked using a common compressed air supply | 16              |
| [3] | B               | Blanking plug                                                                                                      | 17              |
| [4] | VPPI            | Proportional pressure regulator                                                                                    | 16              |
| [5] | NEBU-M12W5      | Connecting cable                                                                                                   | 16              |

## Datasheet

|                                                                                  |                    |                                                                                   |                           |
|----------------------------------------------------------------------------------|--------------------|-----------------------------------------------------------------------------------|---------------------------|
|  | Flow rate          |  | Pressure regulation range |
|                                                                                  | 150 ... 1630 l/min |                                                                                   | –0.1 ... 0 MPa            |
|  | Voltage            |                                                                                   | –0.1 ... 0.1 MPa          |
|                                                                                  | 21.6 ... 27.6 V DC |                                                                                   | 0 ... 0.2 MPa             |
|                                                                                  |                    |                                                                                   | 0 ... 0.6 MPa             |
|                                                                                  |                    |                                                                                   | 0 ... 1 MPa               |
|                                                                                  |                    |                                                                                   | 0 ... 1.2 MPa             |



| General technical data                        |                          | –1 bar                                                                                                                                        | ±1 bar | 2 bar | 6 bar | 10 bar | 12 bar |
|-----------------------------------------------|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|--------|-------|-------|--------|--------|
| Valve function                                |                          | 3-way proportional pressure regulator                                                                                                         |        |       |       |        |        |
| Design                                        |                          | Poppet valve with spring return                                                                                                               |        |       |       |        |        |
| Reset method                                  |                          | Mechanical spring                                                                                                                             |        |       |       |        |        |
| Dimensions W x L x H                          |                          | 42.2 mm x 95.3 mm x 94.3 mm                                                                                                                   |        |       |       |        |        |
| Display type                                  |                          | LED                                                                                                                                           |        |       |       |        |        |
|                                               | With display (-...D-...) | TFT colour                                                                                                                                    |        |       |       |        |        |
| Safety instructions                           |                          | Safety position VPPI, normally closed                                                                                                         |        |       |       |        |        |
| Display size                                  | With display (-...D-...) | 1.77"                                                                                                                                         |        |       |       |        |        |
| Display resolution                            |                          | 128x160 pixels                                                                                                                                |        |       |       |        |        |
| Nominal size pressurisation/exhaust           | [mm]                     | 5                                                                                                                                             |        |       |       |        |        |
| Pneumatic connection 1                        |                          | G1/8                                                                                                                                          |        |       |       |        |        |
| Pneumatic connection 2                        |                          | G1/8                                                                                                                                          |        |       |       |        |        |
| Pneumatic connection 3                        |                          | G1/8                                                                                                                                          |        |       |       |        |        |
| Standard nominal flow rate q <sub>N</sub> 1-2 | [l/min]                  | –                                                                                                                                             | 150    | 375   | 900   | 1400   | 1630   |
| Standard nominal flow rate q <sub>N</sub> 2-3 | [l/min]                  | 20                                                                                                                                            | 20     | 210   | 480   | 750    | 850    |
| Sealing principle                             |                          | Soft                                                                                                                                          |        |       |       |        |        |
| Flow direction                                |                          | Not reversible                                                                                                                                |        |       |       |        |        |
| Actuation type                                |                          | Electrical                                                                                                                                    |        |       |       |        |        |
| Type of control                               |                          | Direct                                                                                                                                        |        |       |       |        |        |
| Type of mounting                              |                          | Via through-hole for M4 screw, via H-rail                                                                                                     |        |       |       |        |        |
| Mounting position                             |                          | Any                                                                                                                                           |        |       |       |        |        |
| Degree of protection                          |                          | IP65                                                                                                                                          |        |       |       |        |        |
| Corrosion resistance class <sup>1)</sup>      |                          | 2                                                                                                                                             |        |       |       |        |        |
| Product weight                                | [g]                      | 365                                                                                                                                           |        |       |       |        |        |
|                                               | With display (-...D-...) | 370                                                                                                                                           |        |       |       |        |        |
| Max. tightening torque of fitting             | [Nm]                     | 8.5                                                                                                                                           |        |       |       |        |        |
| Application note                              |                          | The product is suitable for industrial purposes only. In residential areas, measures for radio interference suppression may have to be taken. |        |       |       |        |        |

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 that are in direct contact with a normal industrial environment.



## Datasheet

| Electrical data                                      |                        |                                  |                                            |
|------------------------------------------------------|------------------------|----------------------------------|--------------------------------------------|
| Operating voltage range                              |                        | [V DC]                           | 21.6 ... 27.6                              |
| Nominal operating voltage                            |                        | [V DC]                           | 24                                         |
| Nominal current                                      |                        | [A]                              | 0.15                                       |
| Max. current consumption                             |                        | [mA]                             | 525                                        |
| Max. electrical power consumption                    |                        | [W]                              | 14.5                                       |
| Reverse polarity protection                          |                        |                                  | For all electrical connections             |
| Short circuit current rating                         |                        |                                  | For all electrical connections             |
| Max. cable length                                    |                        | [m]                              | 30                                         |
| Electrical connection 1                              |                        |                                  |                                            |
| Function                                             |                        | Actual value output              |                                            |
|                                                      |                        | Setpoint input                   |                                            |
|                                                      |                        | Power supply                     |                                            |
| Connection type                                      |                        | Plug                             |                                            |
| Connection technology                                |                        | M12x1, A-coded to EN 61076-2-101 |                                            |
| Number of pins/wires                                 |                        | 5                                |                                            |
| Tightening torque                                    |                        | [Nm]                             | 1.5                                        |
| Setpoint input                                       |                        |                                  |                                            |
| Setpoint value input                                 | Voltage type (-V1-...) | [V]                              | 0 ... 10/PMW signal/ digital <sup>1)</sup> |
|                                                      | Current type (-A4-...) | [mA]                             | 4 ... 20                                   |
| Input resistance                                     | Voltage type (-V1-...) | [kOhm]                           | 100                                        |
|                                                      | Current type (-A4-...) | [kOhm]                           | 0.3                                        |
| Actual value output                                  |                        |                                  |                                            |
| Switching output <sup>1)</sup>                       |                        | Push-pull                        |                                            |
| Max. output current (switching output) <sup>1)</sup> |                        | [mA]                             | 25                                         |
| Analogue output signal range                         | Voltage type (-V1-...) | [V]                              | 0 ... 10                                   |
|                                                      | Current type (-A4-...) | [mA]                             | 4 ... 20                                   |
| Max. load resistance of current output               | Current type (-A4-...) | [ohm]                            | 500                                        |
| Min. load resistance of voltage output               | Voltage type (-V1-...) | [ohm]                            | 2000                                       |
| Accuracy of analogue output in FS                    |                        | [%]                              | 1                                          |

1) Only in combination with display variant VPPI-...-V...-...D-...

## Datasheet

| Operating and environmental conditions       |                     |                                                                                  |
|----------------------------------------------|---------------------|----------------------------------------------------------------------------------|
| Medium                                       |                     | Compressed air to ISO 8573-1:2010 [7:4:4]<br>Inert gases                         |
| Note on the medium                           |                     | Lubricated operation not possible                                                |
| Temperature of medium                        | [°C]                | 0 ... 50                                                                         |
| Ambient temperature                          | [°C]                | 0 ... 50                                                                         |
| Storage temperature                          | [°C]                | - 20 ... 70                                                                      |
| Climatic category                            |                     | 3K3 to EN 60721                                                                  |
| Nominal operating altitude                   | [m above sea level] | < 3000                                                                           |
| Sound power level LwA                        | [dB(A)]             | 62.5                                                                             |
| Sound power level at a distance of 1 m       | [dB(A)]             | 51.9                                                                             |
| Linearity full scale                         | [%]                 | 0.9                                                                              |
| Hysteresis full scale                        | [%]                 | 0.4                                                                              |
| Reproducibility full scale                   | [%]                 | 0.4                                                                              |
| Overall accuracy full scale                  | [%]                 | 1.1                                                                              |
| Temperature coefficient K                    | [%]                 | 0.02                                                                             |
| Total leakage                                | [l/h]               | 5                                                                                |
| Certification                                |                     | RCM                                                                              |
| KC marking                                   |                     | KC EMC                                                                           |
| CE marking (see declaration of conformity)   |                     | To EU EMC Directive <sup>1)</sup>                                                |
|                                              |                     | To EU RoHS Directive <sup>1)</sup>                                               |
| UKCA marking (see declaration of conformity) |                     | To UK EMC regulations <sup>1)</sup>                                              |
|                                              |                     | To UK RoHS regulations <sup>1)</sup>                                             |
| Food-safe                                    |                     | See further information on materials <sup>2)</sup>                               |
| Vibration resistant                          |                     | Transport application test with severity level 2 to FN 942017-4 and EN 60068-2-6 |
|                                              |                     | Shock test with severity level 2 to FN 942017-5 and EN 60068-2-27                |

1) For information about the area of use, see the EC declaration of conformity at: [www.festo.com/catalogue/...](http://www.festo.com/catalogue/...) → Support/Downloads.

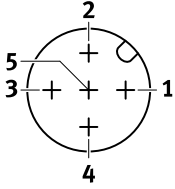
If the devices are subject to usage restrictions in residential, commercial or light-industrial environments, further measures for the reduction of the emitted interference may be necessary.

2) Further information [www.festo.com/catalogue/...](http://www.festo.com/catalogue/...) → Support/Downloads.

## Datasheet

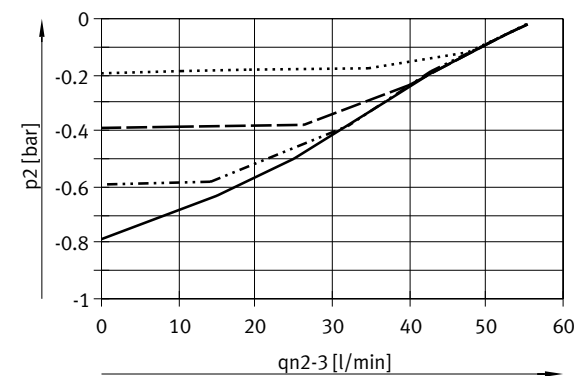
| Operating and environmental conditions |       | -1 bar     | ±1 bar       | 2 bar     | 6 bar     | 10 bar    | 12 bar    |
|----------------------------------------|-------|------------|--------------|-----------|-----------|-----------|-----------|
| Operating pressure                     | [bar] | 0 ... 2    | 1 ... 2      | 2 ... 4   | 6 ... 8   | 10 ... 12 | 12 ... 13 |
| Pressure regulation range              | [MPa] | -0.1 ... 0 | -0.1 ... 0.1 | 0 ... 0.2 | 0 ... 0.6 | 0 ... 1   | 0 ... 1.2 |
| Input pressure 1                       | [bar] | -1 ... 0   | -1 ... 1     | 0 ... 2   | 0 ... 6   | 0 ... 10  | 0 ... 12  |
|                                        | [MPa] | 0 ... 0.6  | 0 ... 0.6    | 0 ... 0.6 | 0 ... 1.3 | 0 ... 1.3 | 0 ... 1.3 |
| Input pressure 3                       | [bar] | 0 ... 6    | 0 ... 6      | 0 ... 6   | 0 ... 13  | 0 ... 13  | 0 ... 13  |
|                                        | [MPa] | -0.1       | -0.1         | –         | –         | –         | –         |
| Burst pressure                         | [bar] | -1         | -1           | –         | –         | –         | –         |
|                                        | [bar] | 40         | 40           | 40        | 40        | 40        | 40        |

| Information on materials |                |
|--------------------------|----------------|
| Note on materials        | RoHS-compliant |
| Housing material         | Reinforced PA  |
| Sealing material         | HNBR           |
|                          | PTFE           |

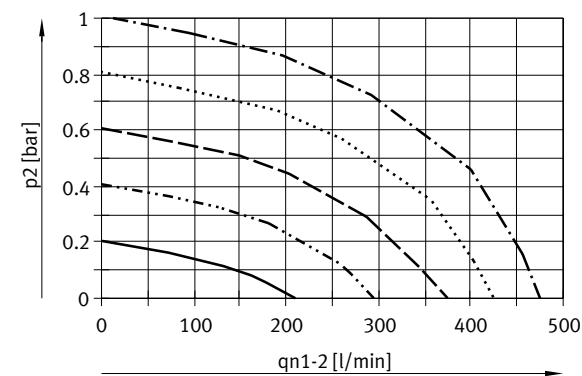
| Pin allocation, electrical connection                                              |     |                                                                                                                                          |                             |
|------------------------------------------------------------------------------------|-----|------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|
|                                                                                    | Pin | Allocation                                                                                                                               |                             |
|                                                                                    |     | Analogue                                                                                                                                 | Alternative (digital input) |
|  | 1   | + 24 V DC                                                                                                                                | + 24 V DC                   |
|                                                                                    | 2   | Setpoint value (-)                                                                                                                       | DI1                         |
|                                                                                    | 3   | GND                                                                                                                                      | GND                         |
|                                                                                    | 4   | Setpoint value (+)/PWM                                                                                                                   | DI0                         |
|                                                                                    | 5   | Actual value output<br>• Related to pin 2 "Setpoint value (-)" for type VPPI- ... -V1-<br>• Related to pin 3 "GND" for VPPI- ... -A4-... | DI2                         |

Datasheet

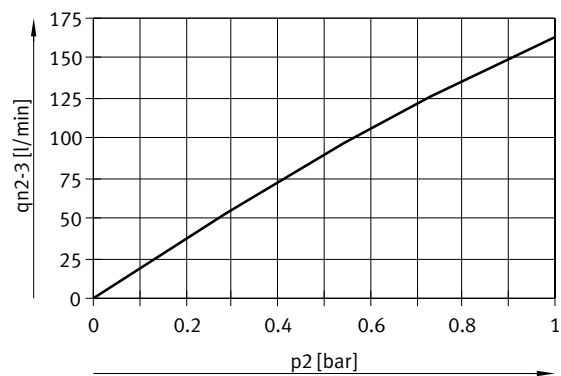
**Flow rate  $q_n$  for valves with pressure regulation range  $-1 \dots 0$  bar and for valves with pressure regulation range  $-1 \dots +1$  bar**  
Flow rate  $2 > 3$ ; as a function of output pressure  $p_2$



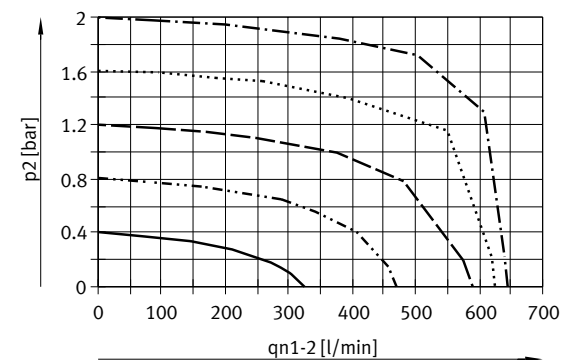
**Flow rate  $q_n$  for valves with pressure regulation range  $-1 \dots +1$  bar**  
Flow rate  $1 > 2$ ; as a function of output pressure  $p_2$



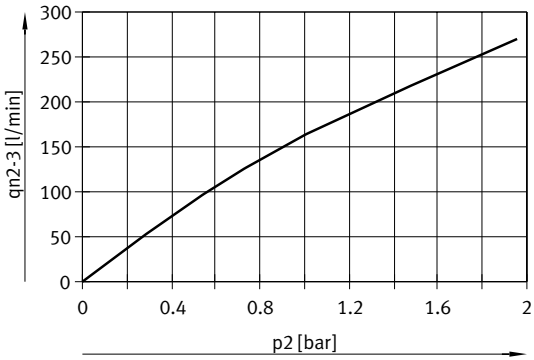
Flow rate  $2 > 3$ ; as a function of output pressure  $p_2$



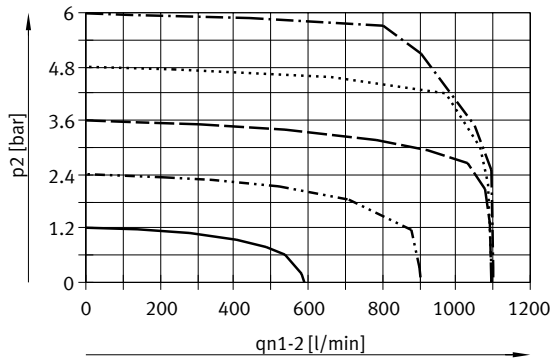
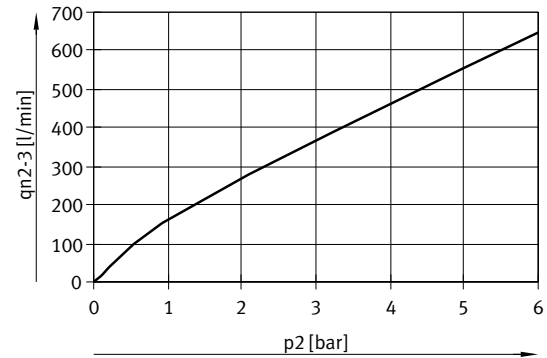
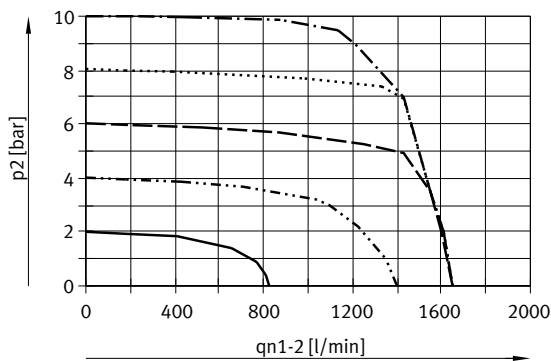
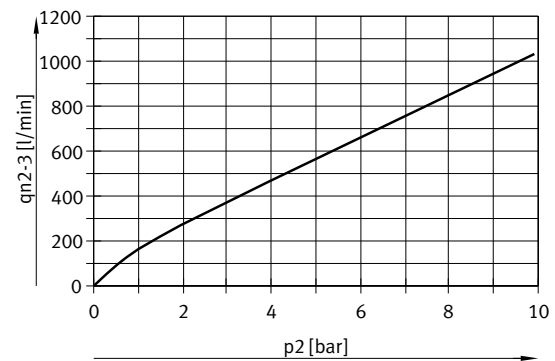
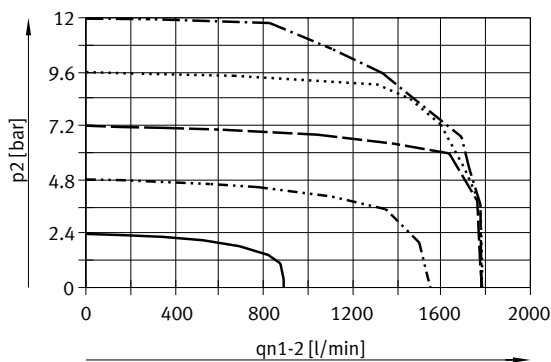
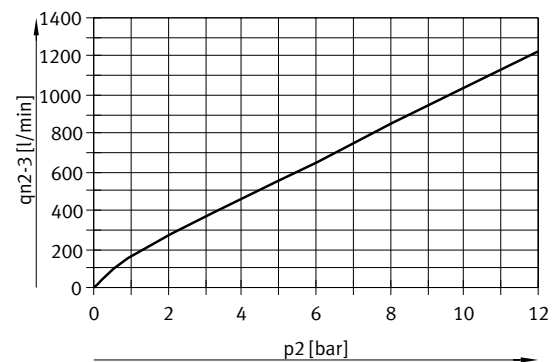
**Flow rate  $q_n$  for valves with pressure regulation range  $0 \dots 2$  bar**  
Flow rate  $1 > 2$ ; as a function of output pressure  $p_2$



Flow rate  $2 > 3$ ; as a function of output pressure  $p_2$

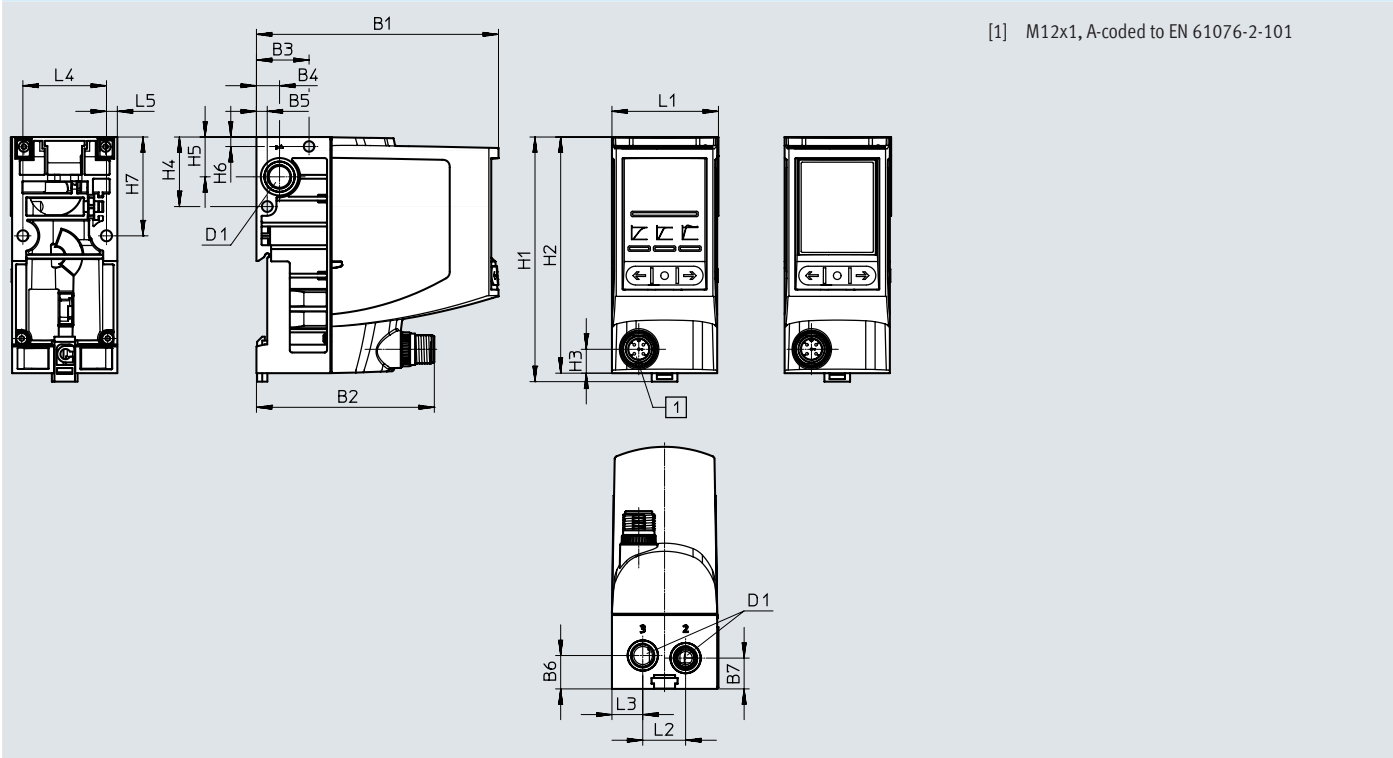


## Datasheet

Flow rate  $q_n$  for valves with pressure regulation range 0 ... 6 barFlow rate 1 > 2; as a function of output pressure  $p_2$ Flow rate 2 > 3; as a function of output pressure  $p_2$ Flow rate  $q_n$  for valves with pressure regulation range 0 ... 10 barFlow rate 1 > 2; as a function of output pressure  $p_2$ Flow rate 2 > 3; as a function of output pressure  $p_2$ Flow rate  $q_n$  for valves with pressure regulation range 0 ... 12 barFlow rate 1 > 2; as a function of output pressure  $p_2$ Flow rate 2 > 3; as a function of output pressure  $p_2$ 

Datasheet

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



| Type | B1   | B2   | B3   | B4 | B5  | B6 | B7 | D1   | H1   | H2 | H3  | H4   | H5   | H6  | H7   |
|------|------|------|------|----|-----|----|----|------|------|----|-----|------|------|-----|------|
| VPPI | 94.3 | 69.3 | 20.5 | 9  | 4.2 | 13 | 12 | G1/8 | 95.3 | 92 | 9.3 | 27.1 | 15.5 | 3.7 | 38.5 |

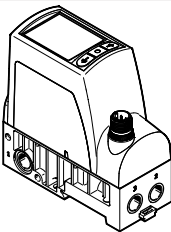
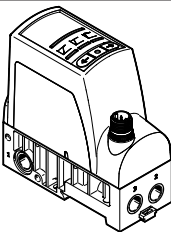
| Type | L1   | L2   | L3 | L4   | L5  |
|------|------|------|----|------|-----|
| VPPI | 41.2 | 16.7 | 12 | 32.6 | 4.2 |

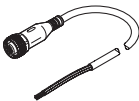
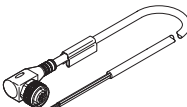
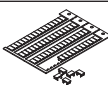
## Ordering data – Modular product system

| Ordering table                             |                                 | Conditions | Code         | Enter code |
|--------------------------------------------|---------------------------------|------------|--------------|------------|
| Module no.                                 | <b>8074287</b>                  |            |              |            |
| Design                                     | Proportional pressure regulator |            | <b>VPPI</b>  | VPPI       |
| Nominal size                               | 5 mm                            |            | <b>-5</b>    | -5         |
| Valve type                                 | In-line valve                   |            | <b>L</b>     | L          |
| Valve function                             | 3/3-way valve, normally open    |            | <b>-4</b>    |            |
|                                            | 3/3-way valve, normally closed  |            | <b>-3</b>    |            |
| Pneumatic connection                       | G1/8                            |            | <b>-G18</b>  | -G18       |
| Lower pressure value of control range      | ... bar                         | [1]        | <b>-...L</b> |            |
|                                            | 0 bar                           | [1]        | <b>-0L</b>   |            |
|                                            | -1 bar                          | [2]        | <b>-1V</b>   |            |
| Upper pressure value of control range      | ...H                            | [1]        | <b>...H</b>  |            |
|                                            | 0 bar                           | [1]        | <b>0H</b>    |            |
|                                            | 1 bar                           | [1]        | <b>1H</b>    |            |
|                                            | 2 bar                           | [1]        | <b>2H</b>    |            |
|                                            | 6 bar                           | [1]        | <b>6H</b>    |            |
|                                            | 10 bar                          | [1]        | <b>10H</b>   |            |
|                                            | 12 bar                          | [1]        | <b>12H</b>   |            |
| Setpoint value input for individual valves | 4 ... 20 mA                     |            | <b>-A4</b>   |            |
|                                            | 0 ... 10 V                      |            | <b>-V1</b>   |            |
| Overall accuracy                           | 1%                              |            | <b>-S1</b>   | -S1        |
| Operator unit/interface                    | Display                         |            | <b>D</b>     |            |
|                                            | Bluetooth                       |            | <b>BT</b>    |            |
|                                            | None                            |            |              |            |
| Certificates                               | With digital test report        |            | <b>-T</b>    |            |
|                                            | None                            |            |              |            |

- 1) The upper control range pressure value must always be greater than the lower control range pressure value  
 With an upper control range pressure value of less than 10 bar and greater than 6 bar, the difference with respect to the lower control range pressure value must be at least 1 bar  
 With an upper control range pressure value of less than 6 bar and greater than 2 bar, the difference with respect to the lower control range pressure value must be at least 0.6 bar  
 With an upper control range pressure value of less than 2 bar, the difference with respect to the lower control range pressure value must be at least 0.5 bar
- 2) 1V Only with upper control range pressure value of 0H and 1H (0 bar and 1 bar)

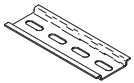
## Accessories

| Ordering data                                                                    |              | Pressure regulation range |                 | Description              | Part no. | Type                       |
|----------------------------------------------------------------------------------|--------------|---------------------------|-----------------|--------------------------|----------|----------------------------|
|                                                                                  |              | [MPa]                     | [bar]           |                          |          |                            |
| Proportional pressure regulator                                                  |              |                           |                 |                          |          |                            |
| With display                                                                     |              |                           |                 |                          |          |                            |
|  | 0 ... 0.6    | 0 ... 6                   | Normally closed | Voltage type 0 ... 10 V  | 8104666  | VPPI-5L-4-G18-0L6H-V1-S1D  |
|                                                                                  | 0 ... 1      | 0 ... 10                  |                 | Voltage type 0 ... 10 V  | 8104671  | VPPI-5L-4-G18-0L10H-V1-S1D |
|                                                                                  | -0.1 ... 0.1 | -1 ... 1                  |                 | Voltage type 0 ... 10 V  | 8104673  | VPPI-5L-3-G18-1V1H-V1-S1D  |
|                                                                                  | 0 ... 0.6    | 0 ... 6                   |                 | Voltage type 0 ... 10 V  | 8104665  | VPPI-5L-3-G18-0L6H-V1-S1D  |
|                                                                                  | 0 ... 0.6    | 0 ... 6                   |                 | Current type 4 ... 20 mA | 8104667  | VPPI-5L-3-G18-0L6H-A4-S1D  |
|                                                                                  | 0 ... 1      | 0 ... 10                  |                 | Voltage type 0 ... 10 V  | 8104669  | VPPI-5L-3-G18-0L10H-V1-S1D |
|                                                                                  | 0 ... 1      | 0 ... 10                  |                 | Current type 4 ... 20 mA | 8104670  | VPPI-5L-3-G18-0L10H-A4-S1D |
|                                                                                  | 0 ... 1.2    | 0 ... 12                  |                 | Voltage type 0 ... 10 V  | 8104672  | VPPI-5L-3-G18-0L12H-V1-S1D |
| Without display                                                                  |              |                           |                 |                          |          |                            |
|  | 0 ... 0.6    | 0 ... 6                   | Normally closed | Voltage type 0 ... 10 V  | 8104664  | VPPI-5L-3-G18-0L6H-V1-S1   |
|                                                                                  | 0 ... 1      | 0 ... 10                  |                 |                          | 8104668  | VPPI-5L-3-G18-0L10H-V1-S1  |

| Ordering data                                                                      |                                                                                                           | Description | Part no.       | Type                 |
|------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|-------------|----------------|----------------------|
| Connecting cable <span>Datasheets → Internet: nebu</span>                          |                                                                                                           |             |                |                      |
|  | Straight socket, M12x1, A-coded                                                                           | 2.5 m       | 541330         | NEBU-M12G5-K-2.5-LE5 |
|                                                                                    |                                                                                                           | 5 m         | 541331         | NEBU-M12G5-K-5-LE5   |
|  | Angled socket, M12x1, A-coded                                                                             | 2.5 m       | 567843         | NEBU-M12W5-K-2.5-LE5 |
|                                                                                    |                                                                                                           | 5 m         | 567844         | NEBU-M12W5-K-5-LE5   |
| Inscription label holder <span>Datasheets → Internet: vmpal</span>                 |                                                                                                           |             |                |                      |
|  | 10 pieces                                                                                                 | 561115      | VMPAL-ST-AP-20 |                      |
| Inscription label <span>Datasheets → Internet: vmpal</span>                        |                                                                                                           |             |                |                      |
|  | 64 inscription labels                                                                                     | 18576       | IBS-6X10       |                      |
| Connecting kit <span>Datasheets → Internet: nebu</span>                            |                                                                                                           |             |                |                      |
|  | Connecting kit, for linking several proportional pressure regulators using a common compressed air supply | 8108270     | VAME-P18-K-P5  |                      |



## Accessories

| Ordering data                                                                     |                                                      |                 |                     |                  |    |
|-----------------------------------------------------------------------------------|------------------------------------------------------|-----------------|---------------------|------------------|----|
| Description                                                                       |                                                      | Part no.        | Type                | PU <sup>1)</sup> |    |
| Blanking plug <span style="float:right">Datasheets → Internet: b</span>           |                                                      |                 |                     |                  |    |
|  | For G1/8 thread                                      | 3568            | B-1/8-10            | 10               |    |
|                                                                                   |                                                      | 534213          | B-1/8-100           | 100              |    |
| Plug screw <span style="float:right">Datasheets → Internet: vame</span>           |                                                      |                 |                     |                  |    |
|  | For duct 1 of the valve for pressure zone separation | 8108292         | VAME-P18-BP-G18-P5  | 5                |    |
|                                                                                   |                                                      | 8108271         | VAME-P18-BP-G18-P10 | 10               |    |
| Silencer <span style="float:right">Datasheets → Internet: uc</span>               |                                                      |                 |                     |                  |    |
|  | For reducing noise at exhaust ports                  | For G1/8 thread | 2307                | U-1/8            | 1  |
|                                                                                   |                                                      |                 | 534222              | U-1/8-50         | 50 |
|                                                                                   |                                                      |                 | 161419              | UC-1/8           | 1  |
|                                                                                   |                                                      |                 | 534219              | UC-1/8-50        | 50 |
| DIN mounting rail <span style="float:right">Datasheets → Internet: nrh</span>     |                                                      |                 |                     |                  |    |
|  | H-rail to EN 60715                                   | 2 m             | 35430               | NRH-35-2000      | 1  |

1) Packaging unit.

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