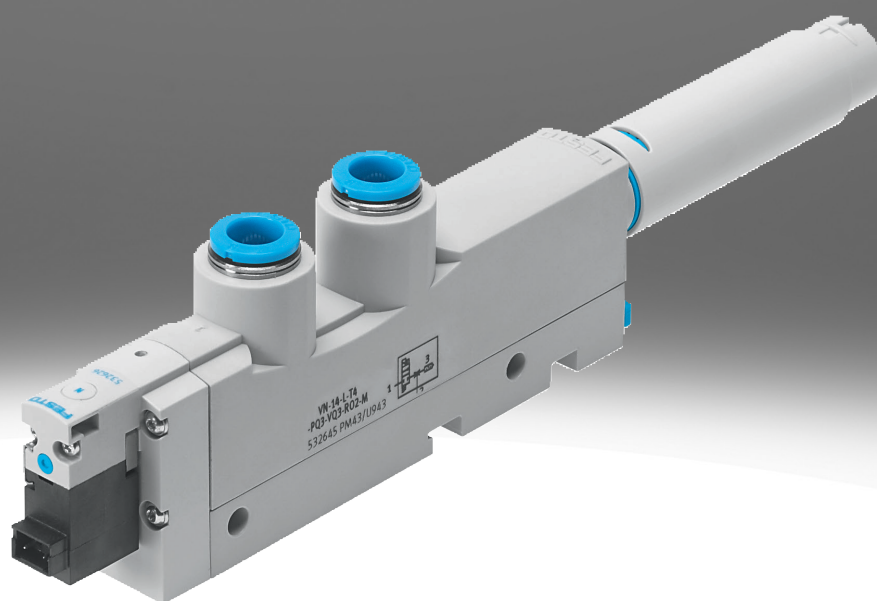


## Vacuum generator, electropneumatic VN

**FESTO**



## Characteristics

### At a glance

[Link](#) [vn](#)

All vacuum generators from Festo have a single-stage design and operate according to the Venturi principle.

- Minimal space requirement
- Compact and sturdy design
- Wear- and maintenance-free
- With solenoid valve vacuum on/off
- Especially effective as it can be used directly in the working area
- Polymer housing
- Versatile connection variants
- Easy to mount thanks to the double-sided latching function of the mounting plate

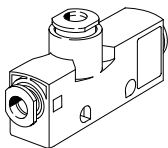
### Diagrams

[Link](#) [vn](#)


The diagrams shown in this document are also available online. These can be used to display precise values.

### Housing type

[T3] T-shape, pitch 14 mm



- Grid dimension: 14 mm (18 mm / 24 mm also available)
- Direct or indirect mounting with screws or mounting plate
- Possibility of connecting a silencer

### Ejector characteristics

[H] High vacuum/standard

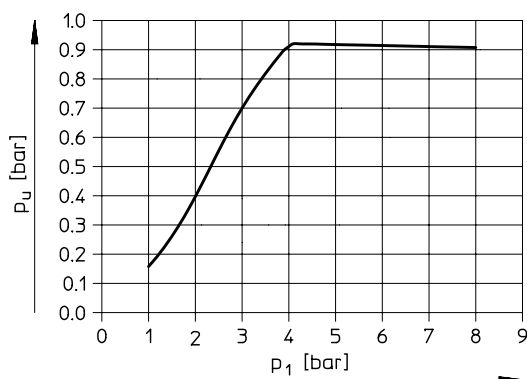
- Vacuum generators for high vacuum can achieve very short evacuation times because of the high suction volumetric flow rate at relatively low vacuum.
- Vacuum generators for high vacuum reach vacuums of up to 93%
- With the standard functional principle, the compressed air and vacuum ports are offset by 90°

[L] High suction rate/standard

- Vacuum generators for high suction volumetric flow rates up to 339 l/min are particularly suitable for short evacuation times
- Vacuum generators for high suction volumetric flow rates are optimised for generating a high vacuum at comparatively low suction volumetric flow rates.

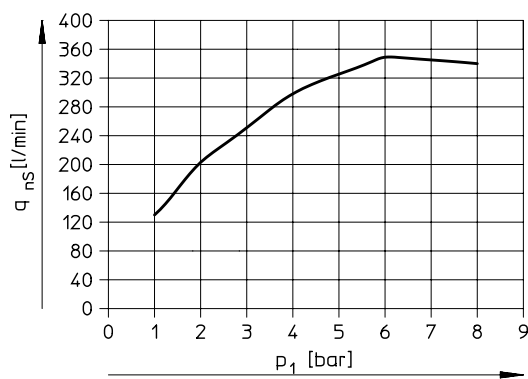
### Vacuum type

[H] High vacuum



Vacuum  $p_u$  as a function of operating pressure  $p_1$

[L] High suction rate



Suction volumetric flow rate  $q_{ns}$  as a function of operating pressure  $p_1$

## Type code

|     |                                                                                     |  |
|-----|-------------------------------------------------------------------------------------|--|
| 001 | Series                                                                              |  |
| VN  | Vacuum generator                                                                    |  |
| 002 | Nominal width of Laval nozzle                                                       |  |
| 05  | 0.45 mm                                                                             |  |
| 07  | 0.70 mm                                                                             |  |
| 10  | 0.95 mm                                                                             |  |
| 14  | 1.4 mm                                                                              |  |
| 20  | 2.0 mm                                                                              |  |
| 30  | 3.0 mm                                                                              |  |
| 003 | Ejector characteristics                                                             |  |
| H   | High vacuum/standard                                                                |  |
| L   | High suction rate/standard                                                          |  |
| 004 | Housing type                                                                        |  |
| T3  | T-shape, pitch 14 mm                                                                |  |
| T4  | T-shape, grid dimension 18 mm (with switching output PNP (P), grid dimension 16 mm) |  |
| T6  | T-shape, pitch 24 mm                                                                |  |

|     |                                                   |  |
|-----|---------------------------------------------------|--|
| 005 | Compressed air connection                         |  |
| PQ2 | Push-in connector 6 mm                            |  |
| PQ3 | Push-in connector 8 mm                            |  |
| PQ4 | Push-in connector 10 mm                           |  |
| 006 | Vacuum connection                                 |  |
| VQ2 | Push-in fitting QS-6                              |  |
| VQ3 | Push-in fitting QS-8                              |  |
| VQ5 | Push-in fitting QS-12                             |  |
| 007 | Exhaust port                                      |  |
| RO1 | Silencer UO                                       |  |
| RO2 | Silencer UOM                                      |  |
| 008 | Integrated function                               |  |
| B   | Electric on/off valve and pneumatic ejector pulse |  |
| M   | Electric on/off valve                             |  |

## Datasheet

## General technical data

|                                            |                                                  |       |                                     |
|--------------------------------------------|--------------------------------------------------|-------|-------------------------------------|
| Grid dimension                             | 14 mm                                            | 18 mm | 24 mm                               |
| Pneumatic connection, port 1 <sup>1)</sup> | QS-6                                             | QS-8  | QS-10                               |
| Pneumatic connection, port 3               | Open silencer                                    |       |                                     |
| Vacuum connection                          | QS-6                                             | QS-8  | QS-12                               |
| Type of mounting                           | With through-hole, With H-rail, With accessories |       | With through-hole, With accessories |
| Mounting position                          | optional                                         |       |                                     |

1) Note: This product complies with ISO 1179-1 and ISO 228-1.

## Operating and environmental conditions

|                                              |                                           |
|----------------------------------------------|-------------------------------------------|
| Operating pressure                           | 2 ... 8 bar                               |
| Nominal operating pressure                   | 6 bar                                     |
| Operating medium                             | Compressed air to ISO 8573-1:2010 [7:4:4] |
| Note on operating and pilot medium           | Lubricated operation not possible         |
| Ambient temperature                          | 0 ... 50°C                                |
| Media temperature                            | 0 ... 50°C                                |
| Corrosion resistance class CRC <sup>1)</sup> | 1 - Low corrosion stress                  |

1) Corrosion resistance class CRC 1 to Festo standard FN 940070. Low corrosion stress. Dry indoor application or transport and storage protection. Also applies to parts behind covers, in the non-visible interior area, or parts which are covered in the application (e.g. drive pins).

## Performance data – High vacuum

|                                                             |           |            |            |            |          |           |       |
|-------------------------------------------------------------|-----------|------------|------------|------------|----------|-----------|-------|
| Grid dimension                                              | 14        |            |            | 18         |          | 24        |       |
| Max. vacuum                                                 | 92%       |            |            | 93%        |          | 92%       |       |
| Nominal size, Laval nozzle                                  | 0.45      | 0.7        | 0.95       | 1.4        | 2        | 3         |       |
| Operating pressure for max. vacuum                          | 4.9 bar   | 4.4 bar    | 3.5 bar    |            |          | 3.7 bar   |       |
| Max. suction flow rate against atmosphere                   | 7.2 l/min | 16.2 l/min | 21.8 l/min | 48.8 l/min | 98 l/min | 186 l/min |       |
| Operating pressure for max. suction flow rate               | 3 bar     |            |            | 4 bar      |          | 2 bar     | 3 bar |
| Air supply time at nominal operating pressure <sup>1)</sup> | 3.9 s     | 1.69 s     | 1.06 s     | 0.5 s      | 0.24 s   | 0.13 s    |       |
| Sound pressure level at nominal operating pressure          | 56 dB(A)  | 65 dB(A)   | 71 dB(A)   | 69 dB(A)   | 63 dB(A) | 78 dB(A)  |       |

1) Length of time for reducing the vacuum to a residual vacuum of -0.05 bar after switching off the operating pressure.

## Performance data – High suction volume flow

|                                                             |           |            |            |            |            |            |            |            |          |           |
|-------------------------------------------------------------|-----------|------------|------------|------------|------------|------------|------------|------------|----------|-----------|
| Grid dimension                                              | 14        |            |            |            |            |            | 18         |            | 24       |           |
| Max. suction flow rate against atmosphere                   | 7.2 l/min | 13.6 l/min | 16.2 l/min | 21.8 l/min | 30.9 l/min | 40.5 l/min | 48.8 l/min | 92.6 l/min | 98 l/min | 186 l/min |
| Nominal size, Laval nozzle                                  | 0.45      | 0.7        | 0.95       | 0.7        | 0.95       | 1.4        | 2          |            | 3        |           |
| Operating pressure for max. suction flow rate               | 3 bar     | 5 bar      | 3 bar      | 4 bar      | 5 bar      | 4 bar      | 5 bar      | 2 bar      | 3 bar    |           |
| Air supply time at nominal operating pressure <sup>1)</sup> | 3.9 s     | 1.97 s     | 1.69 s     | 1.06 s     | 0.83 s     | 0.67 s     | 0.5 s      | 0.32 s     | 0.24 s   | 0.13 s    |
| Sound pressure level at nominal operating pressure          | 56 dB(A)  | 52 dB(A)   | 65 dB(A)   | 71 dB(A)   | 64 dB(A)   | 72 dB(A)   | 69 dB(A)   | 63 dB(A)   | 78 dB(A) |           |

1) Time required to reduce the vacuum to a residual vacuum of -0.05 bar after switching off the operating pressure.

## Technical data on/off valve

|                              |                 |
|------------------------------|-----------------|
| Operational voltage range DC | 21.6 ... 26.4 V |
| Duty cycle                   | 100%            |
| Degree of protection         | IP40            |
| Valve function               | 2/2             |
| Manual override              | Non-detenting   |

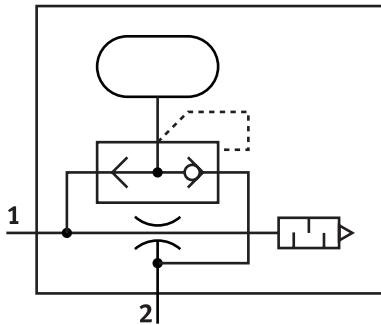
## Datasheet

### Materials

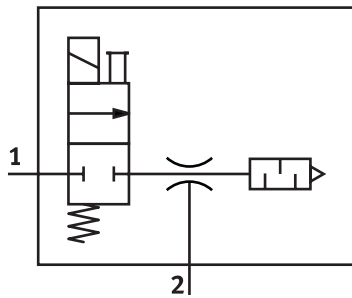
|                                      |                                           |
|--------------------------------------|-------------------------------------------|
| Material housing                     | PA-reinforced, POM-reinforced             |
| Material silencer                    | Wrought aluminium alloy, PE, POM, PU foam |
| Material fitting                     | Brass, Nickel-plated                      |
| Material connecting thread           | Anodised wrought aluminium alloy          |
| Material transmitter nozzle          | Wrought aluminium alloy                   |
| Material receiver nozzle             | POM                                       |
| Material screws                      | Steel                                     |
| Material seals                       | NBR                                       |
| Note on materials                    | RoHS-compliant                            |
| LABS (PWIS) conformity <sup>1)</sup> | VDMA24364-B1/B2-L<br>VDMA24364 zone III   |

1) RO2: VDMA24364 zone III

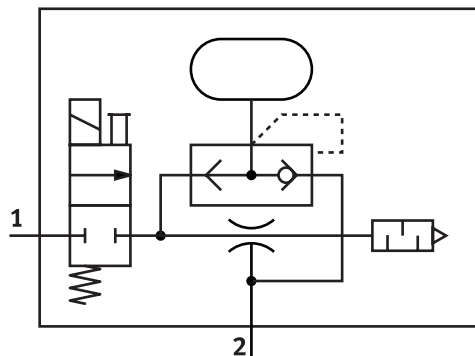
### Function - VN-A (Standard/Inline, pneumatic ejector impulse)



### Function - VN-M (standard, electric switch-on valve)

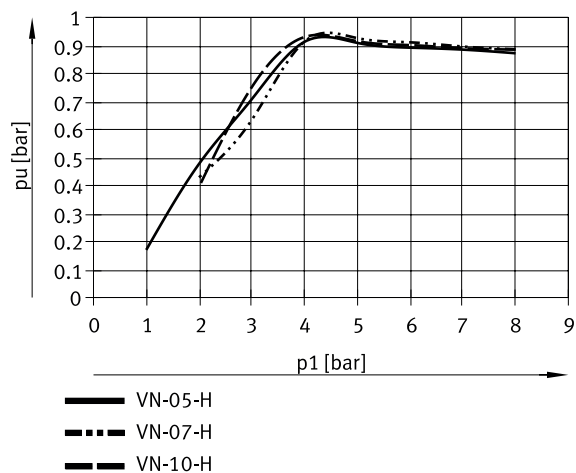


### Function - VN-B (standard, electric switch-on valve, pneumatic ejector pulse)

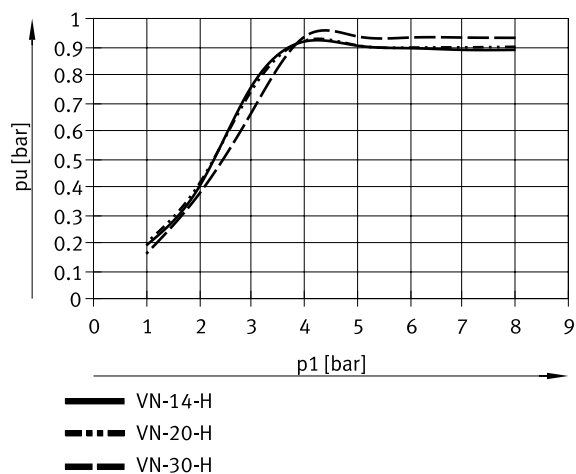


## Datasheet

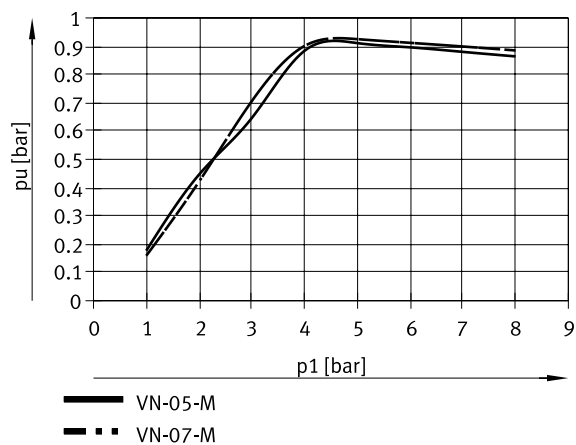
Vacuum  $p_u$  as a function of operating pressure  $p_1$  – high vacuum (standard, VN-05/07/10)



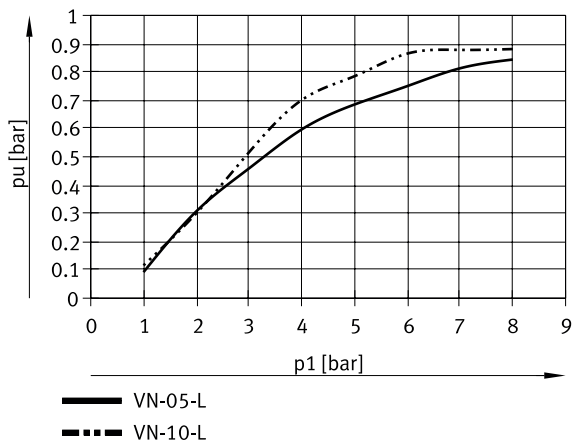
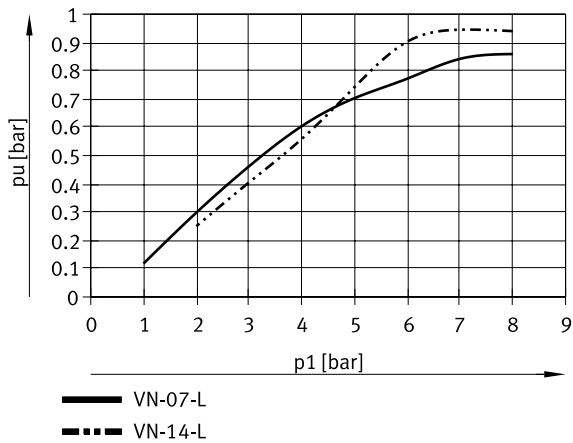
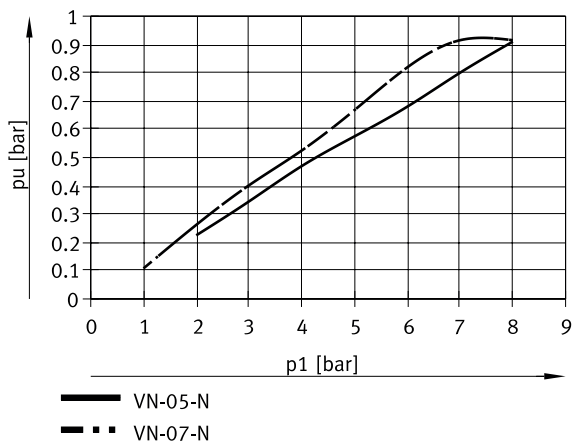
Vacuum  $p_u$  as a function of operating pressure  $p_1$  – high vacuum (standard, VN-14/20/30)



Vacuum  $p_u$  as a function of operating pressure  $p_1$  – high vacuum (inline; VN-05/07)

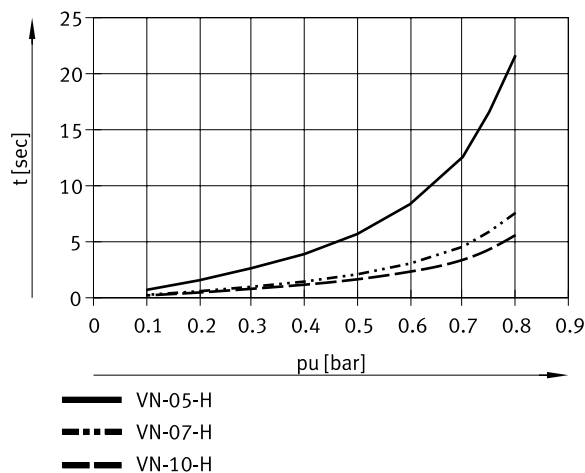


## Datasheet

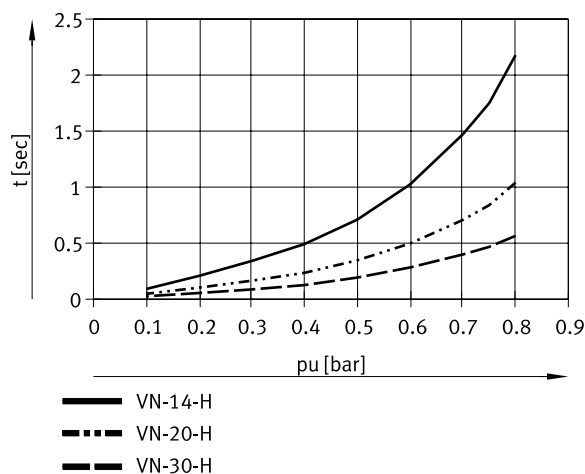
Vacuum  $p_u$  as a function of operating pressure  $p_1$  – high suction rate (standard; VN-05/10)Vacuum  $p_u$  as a function of operating pressure  $p_1$  – high suction rate (standard; VN-07/14)Vacuum  $p_u$  as a function of operating pressure  $p_1$  – high suction rate (inline; VN-05/07)

## Datasheet

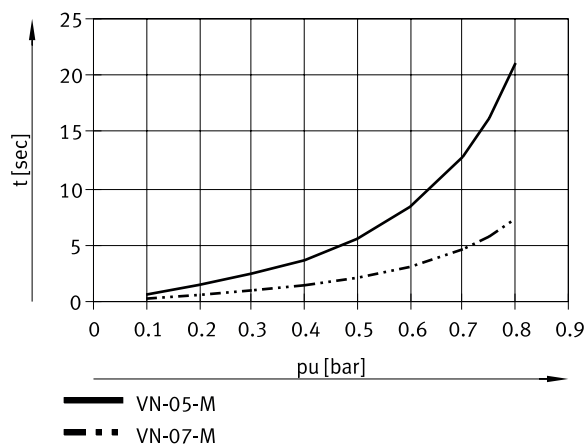
Evacuation time  $t$  as a function of vacuum  $p_u$  for 1 l volume at 6 bar operating pressure – high vacuum (standard; VN-05/07/10)



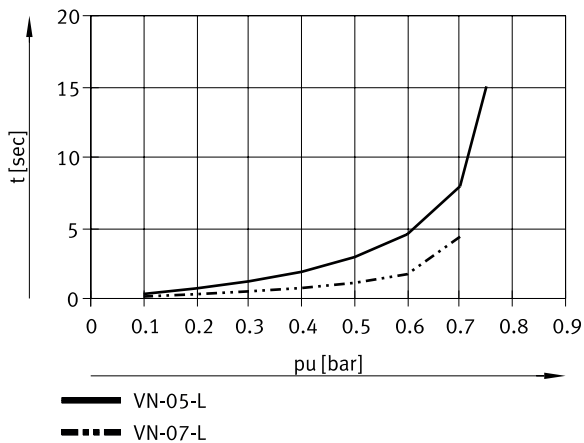
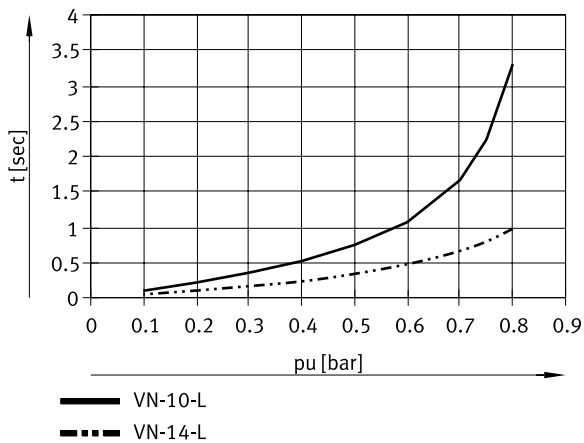
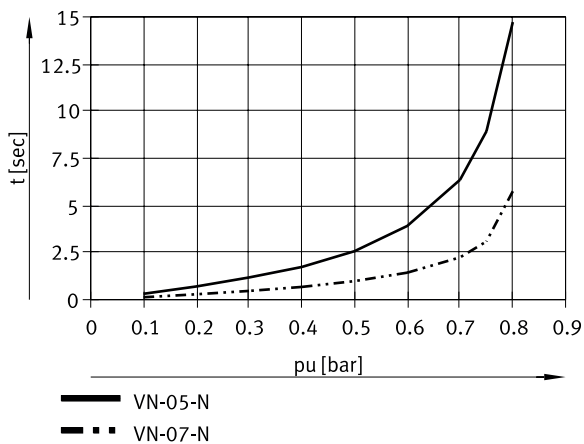
Evacuation time  $t$  as a function of vacuum  $p_u$  for 1 l volume at 6 bar operating pressure – high vacuum (standard; VN-14/20/30)



Evacuation time  $t$  as a function of vacuum  $p_u$  for 1 l volume at 6 bar operating pressure – high vacuum (inline; VN-05/07)

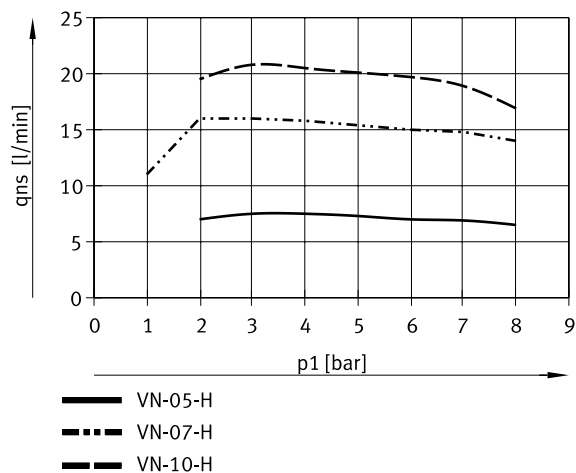


## Datasheet

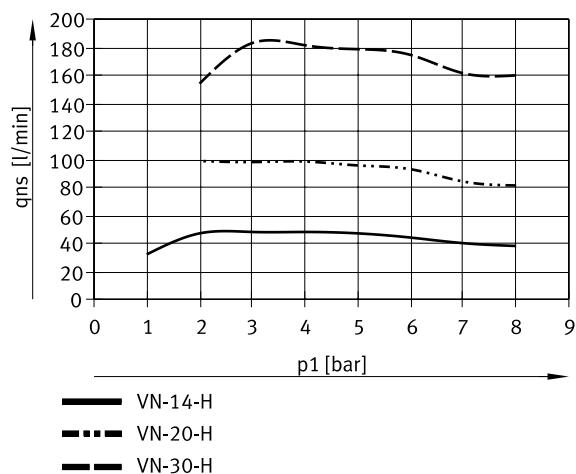
Evacuation time  $t$  as a function of vacuum  $p_u$  for 1 l volume at 6 bar operating pressure – high suction rate (standard; VN-05/07)Evacuation time  $t$  as a function of vacuum  $p_u$  for 1 l volume at 6 bar operating pressure – high suction rate (standard; VN-10/14)Evacuation time  $t$  as a function of vacuum  $p_u$  for 1 l volume at 6 bar operating pressure – high suction rate (inline; VN-05/07)

## Datasheet

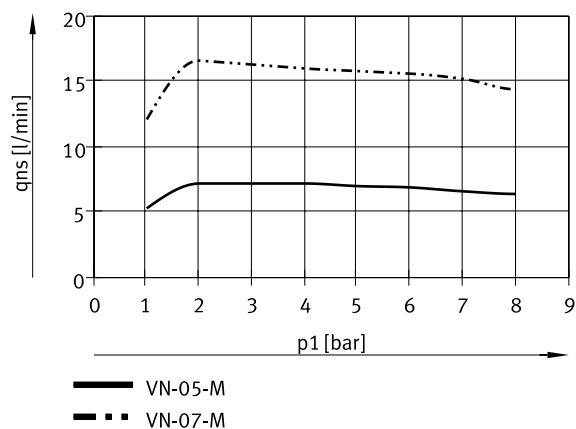
Suction rate  $q_{ns}$  (against atmosphere) as a function of operating pressure  $p_1$  – high vacuum (standard; VN-05/07/10)



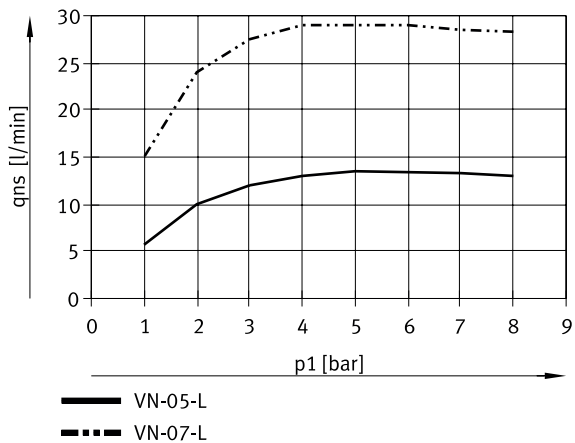
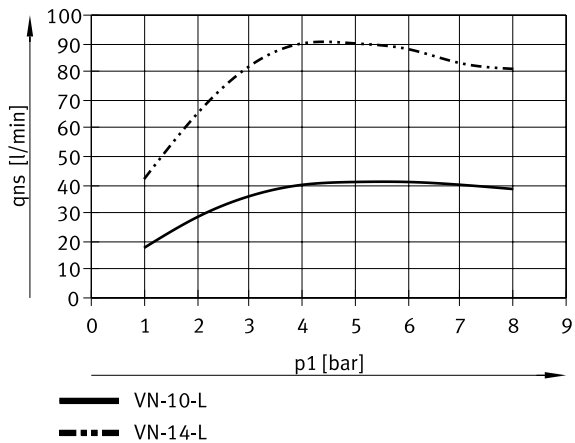
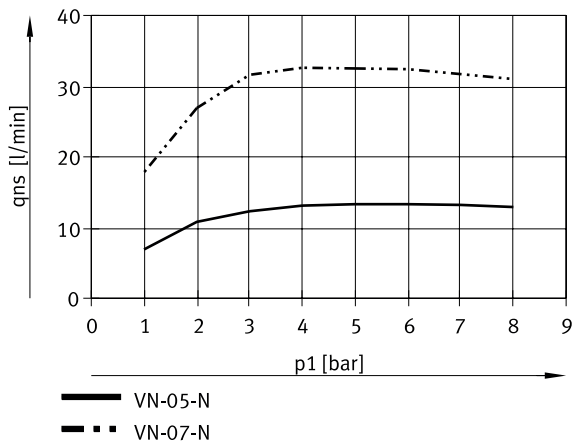
Suction rate  $q_{ns}$  (against atmosphere) as a function of operating pressure  $p_1$  – high vacuum (standard; VN-14/20/30)



Suction rate  $q_{ns}$  (against atmosphere) as a function of operating pressure  $p_1$  – high vacuum (inline; VN-05/07)

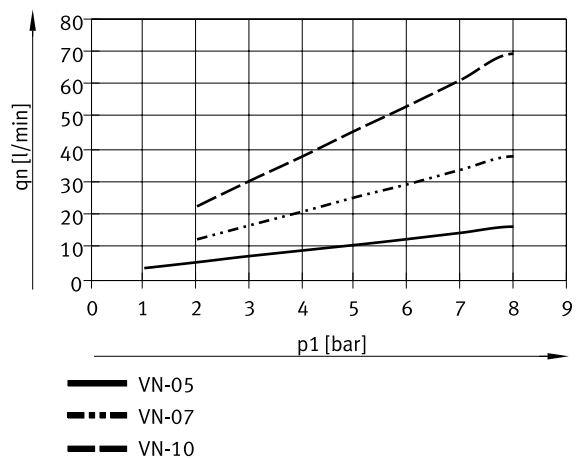


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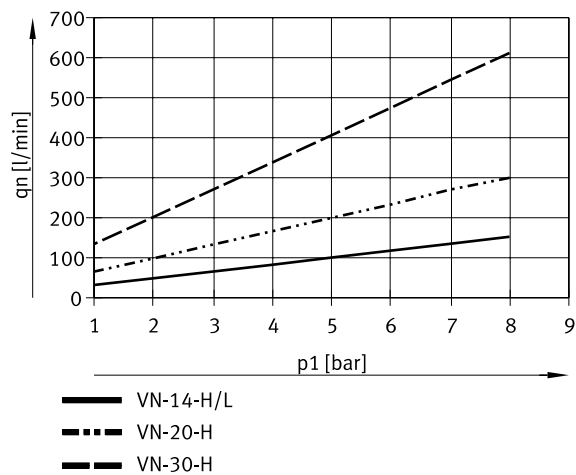
Suction rate  $q_{ns}$  (against atmosphere) as a function of operating pressure  $p_1$  – high suction rate (standard; VN-05/07)Suction rate  $q_{ns}$  (against atmosphere) as a function of operating pressure  $p_1$  – high suction rate (standard; VN-10/14)Suction rate  $q_{ns}$  (against atmosphere) as a function of operating pressure  $p_1$  – high suction rate (inline; VN-05/07)

## Datasheet

Air consumption  $q_n$  as a function of operating pressure  $p_1$  – high vacuum / high suction rate (05/07/10)



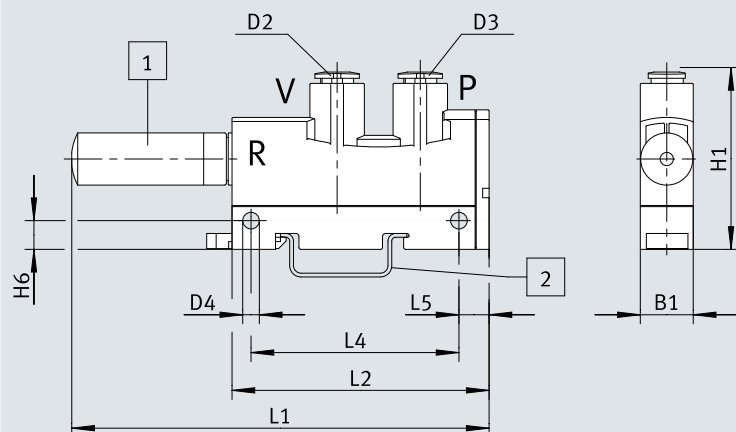
Air consumption  $q_n$  as a function of operating pressure  $p_1$  – high vacuum / high suction rate (14/20/30)



## Dimensions

Dimensions – T-shape/standard, VN-...-T...-PQ...-VQ...-R0...-A

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- [1] Silencer  
[2] Mounting surface

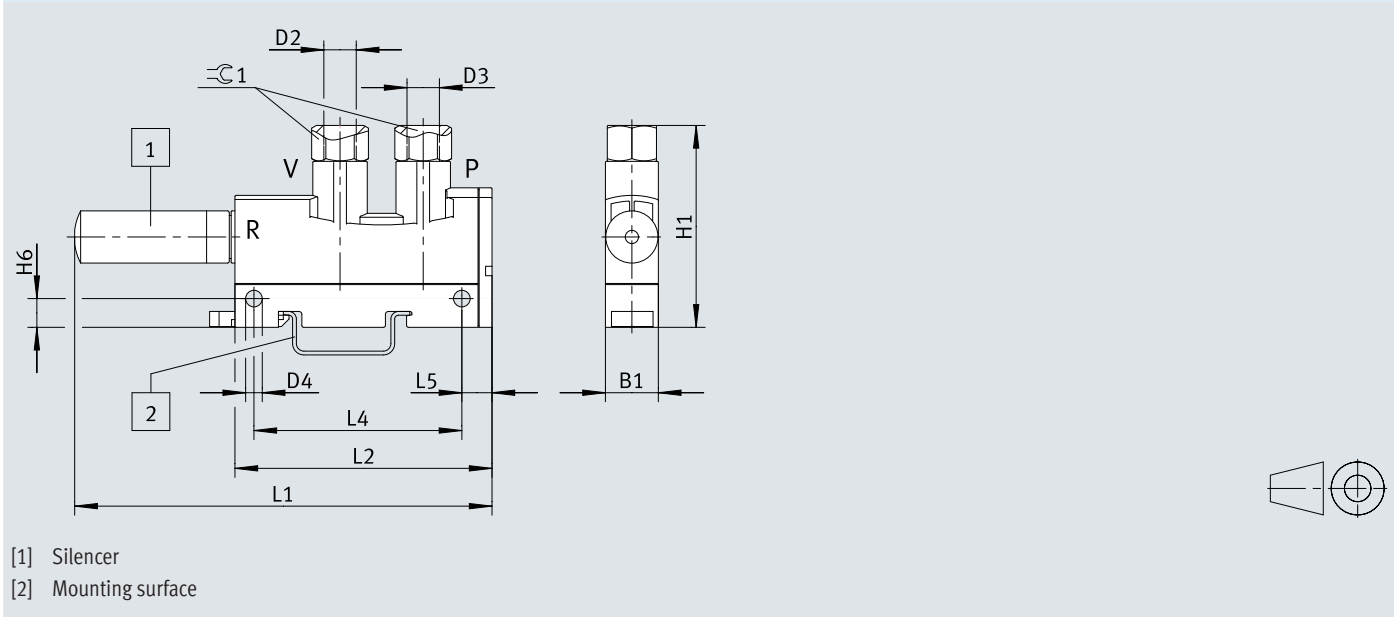
|                          | B1 | 1)         |            | D4<br>Ø | H1 | H6  | L1  | L2 | L4 | L5 |
|--------------------------|----|------------|------------|---------|----|-----|-----|----|----|----|
|                          |    | V<br>D2    | P<br>D3    |         |    |     |     |    |    |    |
| VN-05-H-T3-PQ2-VQ2-R01-A | 14 | BMS-TQ-6-B | BMS-TQ-6-B | 4,4     | 47 | 7,6 | 110 | 68 | 55 | 8  |
| VN-05-L-T3-PQ2-VQ2-R01-A |    |            |            |         |    |     |     |    |    |    |
| VN-07-H-T3-PQ2-VQ2-R01-A |    |            |            |         |    |     |     |    |    |    |
| VN-07-L-T3-PQ2-VQ2-R01-A |    |            |            |         |    |     |     |    |    |    |
| VN-10-H-T3-PQ2-VQ2-R01-A |    |            |            |         |    |     | 119 |    |    |    |
| VN-10-L-T3-PQ2-VQ2-R01-A |    |            |            |         |    |     |     |    |    |    |

|                          | B1 | 1)         |            | D4<br>Ø | H1 | H6  | L1  | L2 | L4 | L5  |
|--------------------------|----|------------|------------|---------|----|-----|-----|----|----|-----|
|                          |    | V<br>D2    | P<br>D3    |         |    |     |     |    |    |     |
| VN-14-H-T4-PQ3-VQ3-R02-A | 18 | BMS-TQ-8-B | BMS-TQ-8-B | 4,4     | 47 | 7,5 | 166 | 98 | 63 | 8,7 |
| VN-14-L-T4-PQ3-VQ3-R02-A |    |            |            |         |    |     |     |    |    |     |

1) Connections

Dimensions

Dimensions – T-shape/standard, VN-...-T...-PI...-VI...-RO...-A Download CAD data [www.festo.com](http://www.festo.com)



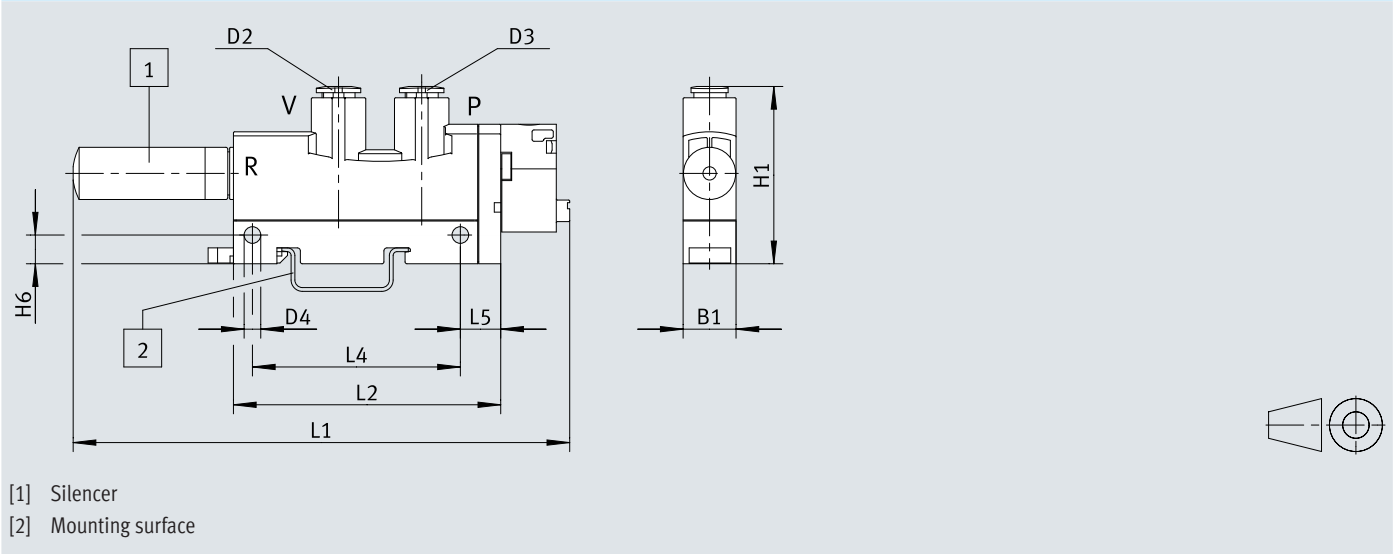
|                               | B1 | 1)      |         | D4<br>Ø | H1 | H6  | L1  | L2 | L4 | L5  | ≅ 1 |
|-------------------------------|----|---------|---------|---------|----|-----|-----|----|----|-----|-----|
|                               |    | V<br>D2 | P<br>D3 |         |    |     |     |    |    |     |     |
| VN-05-H/L-T3-P14-V14-R01-A    | 14 | G1/8    | G1/8    | 4,4     | 53 | 7,6 | 110 | 68 | 55 | 8   | 13  |
| VN-07/10-H/L-T3-P14-V14-R01-A |    |         |         |         |    |     | 119 |    |    |     |     |
| VN-14-H/L-T3-P14-V14-R01-A    | 18 | G1/4    | G1/4    |         | 62 | 7,5 | 166 | 98 | 63 | 8,7 | 17  |

1) Connections

Dimensions

Dimensions – T-shape/standard, VN-...-T...-PQ...-VQ...-RO...-M/B

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

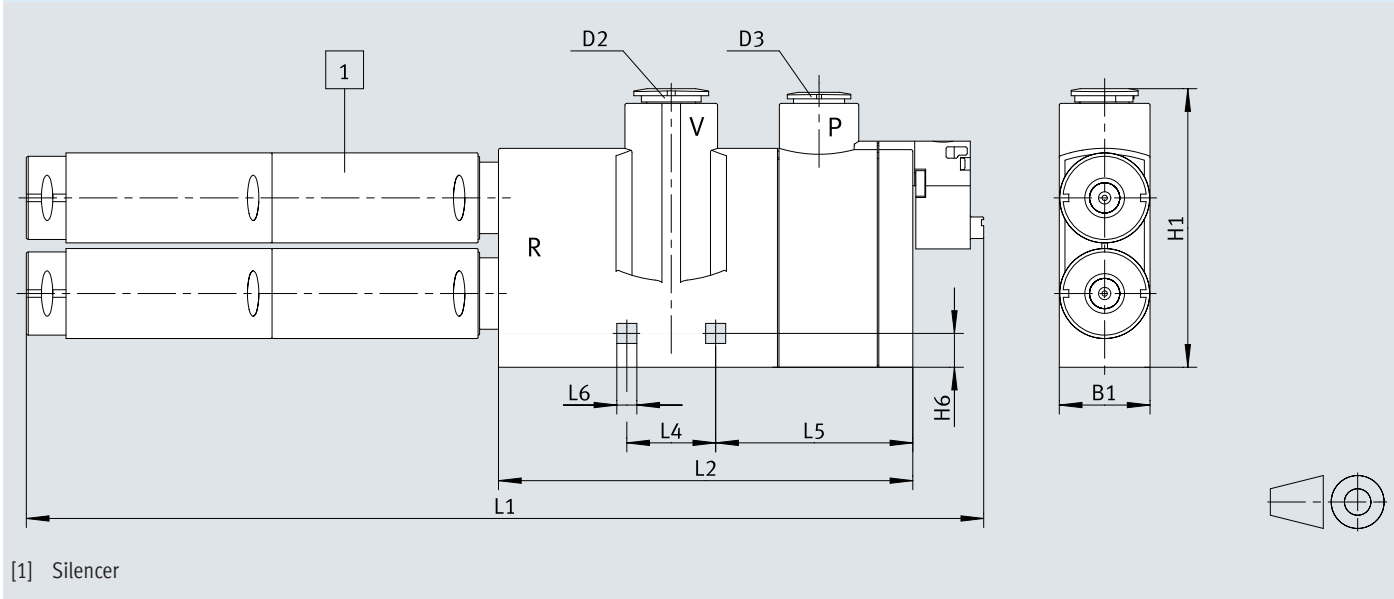


|                                 | B1 | 1)         |            | D4<br>Ø | H1 | H6  | L1  | L2  | L4 | L5   |
|---------------------------------|----|------------|------------|---------|----|-----|-----|-----|----|------|
|                                 |    | V<br>D2    | P<br>D3    |         |    |     |     |     |    |      |
| VN-05-H/L-T3-PQ2-VQ2-RO1-B/M    | 14 | BMS-TQ-6-B | BMS-TQ-6-B | 4,4     | 47 | 7,6 | 132 | 71  | 55 | 10,7 |
| VN-07/10-H/L-T3-PQ2-VQ2-RO1-B/M |    |            |            |         |    |     | 141 |     |    |      |
| VN-14-H/L-T3-PQ2-VQ2-RO1-B/M    | 18 | BMS-TQ-8-B | BMS-TQ-8-B |         |    | 7,5 | 193 | 106 | 63 | 16,4 |

1) Connections

Dimensions

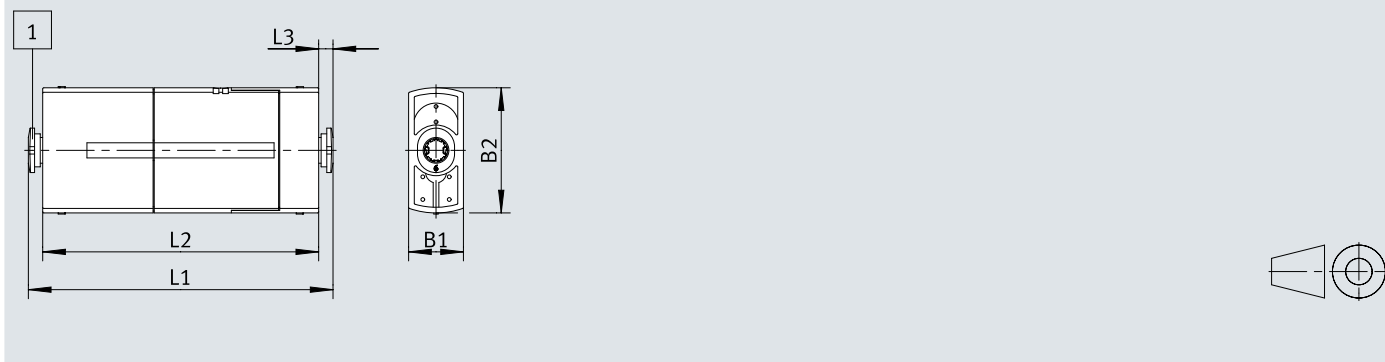
Dimensions – T-shape/standard, VN-20/30 Download CAD data [www.festo.com](http://www.festo.com)



|                          | B1 | V<br>D2     | R<br>D3     | H1 | H6 | L1  | L2  | L4   | L5 | L6  |
|--------------------------|----|-------------|-------------|----|----|-----|-----|------|----|-----|
| VN-20-H-T6-PQ4-VQ5-RO2-M | 24 | BMS-TQ-12-B | BMS-TQ-10-B | 74 | 9  | 253 | 110 | 23,5 | 52 | 5,3 |
| VN-30-H-T6-PQ4-VQ5-RO2-M |    |             |             |    |    |     |     |      |    |     |

## Dimensions

### Dimensions – Straight shape/in-line, VN-05/07

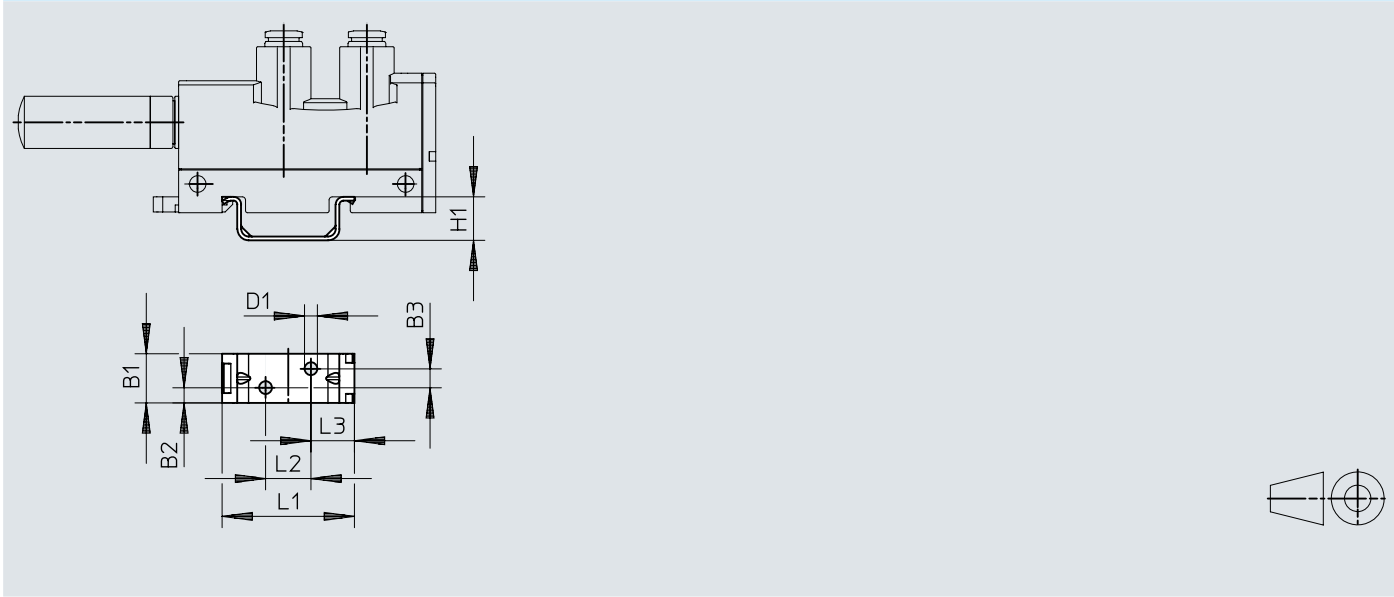
[Download CAD data](#) [www.festo.com](http://www.festo.com)


|                      | 1)         |            | B1   | B2   | L1   | L2   | L3  |
|----------------------|------------|------------|------|------|------|------|-----|
|                      | P          | V          |      |      |      |      |     |
| VN-05-M-I3-PQ2-VQ2-A | BMS-TQ-6-B | BMS-TQ-6-B | 14,5 | 33,1 | 79   | 73   | 3   |
| VN-05-N-I3-PQ2-VQ2-A |            |            |      |      | 95   | 89   |     |
| VN-07-M-I3-PQ2-VQ2-A |            |            |      |      | 95   | 89   |     |
| VN-07-N-I3-PQ2-VQ2-A |            |            |      |      | 95   | 89   |     |
| VN-10-M-I3-PQ2-VQ2   | QS-6       | QS-6       | 13   | 22   | 66,1 | 57,7 | 4,2 |

1) Connections

Dimensions

Dimensions – Mounting plate VN-...-BP [Download CAD data](#) [www.festo.com](http://www.festo.com)



|          | B1 | B2 | B3 | D1<br>Ø | H1   | L1 | L2 | L3   |
|----------|----|----|----|---------|------|----|----|------|
| VN-T3-BP | 13 | 4  | 5  | 3,4     | 11,5 | 35 | 12 | 11,5 |
| VN-T4-BP | 17 | 6  | 5  | 3,4     | 11,5 | 35 | 12 | 11,5 |

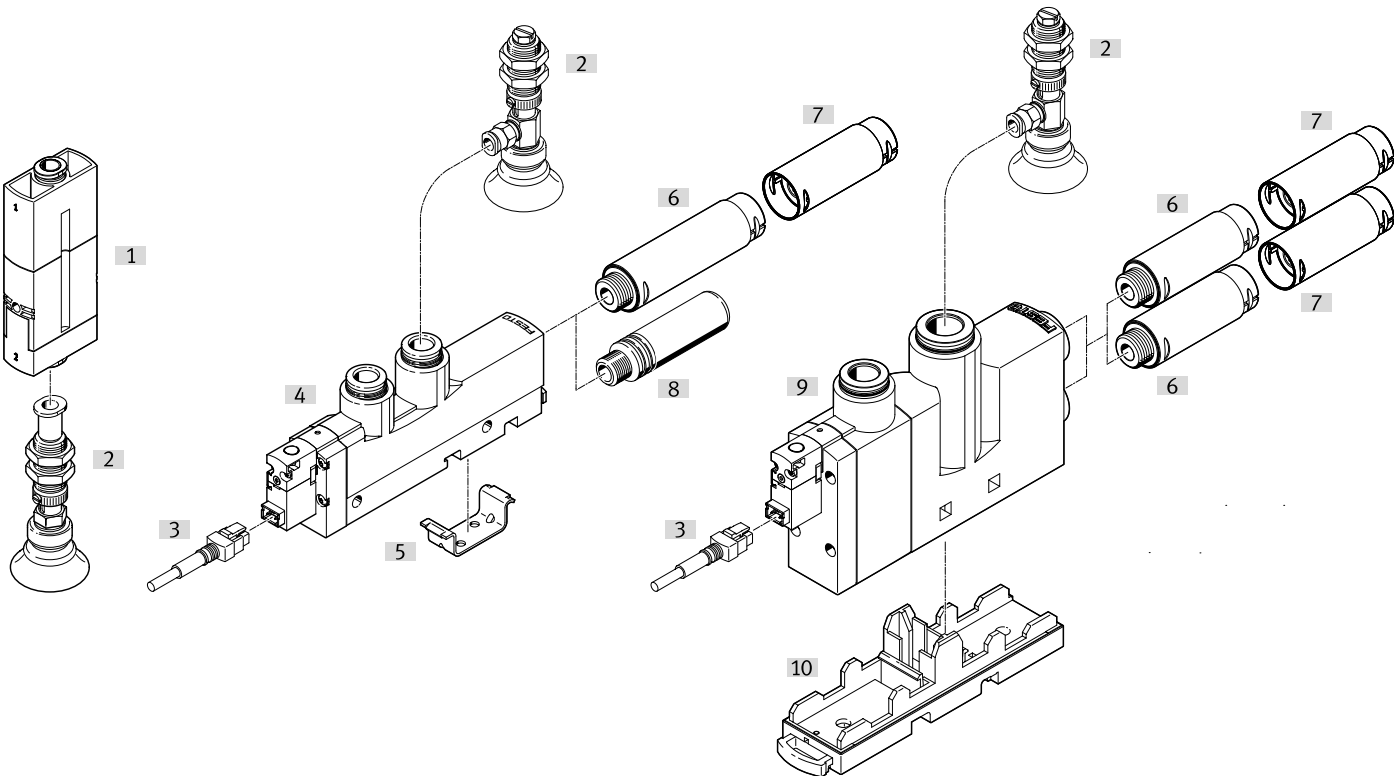
## Ordering data

| Standard, high vacuum H |         |                            |                                                   |                |                          |                          |
|-------------------------|---------|----------------------------|---------------------------------------------------|----------------|--------------------------|--------------------------|
| Grid dimension          | Design  | Nominal size, Laval nozzle | Integrated function                               | Product weight | Part no.                 | Type                     |
| 14 mm                   | T-shape | 0.45 mm                    | Electric on/off valve and pneumatic ejector pulse | 62 g           | 532622                   | VN-05-H-T3-PQ2-VQ2-R01-B |
|                         |         |                            | Electric on/off valve                             | 60 g           | 532618                   | VN-05-H-T3-PQ2-VQ2-R01-M |
|                         |         | 0.7 mm                     | Electric on/off valve and pneumatic ejector pulse | 63 g           | 532630                   | VN-07-H-T3-PQ2-VQ2-R01-B |
|                         |         |                            | Electric on/off valve                             | 61 g           | 532626                   | VN-07-H-T3-PQ2-VQ2-R01-M |
|                         |         | 0.95 mm                    | Electric on/off valve and pneumatic ejector pulse | 63 g           | 532640                   | VN-10-H-T3-PQ2-VQ2-R01-B |
|                         |         |                            | Electric on/off valve                             | 61 g           | 532636                   | VN-10-H-T3-PQ2-VQ2-R01-M |
| 18 mm                   |         | 1.4 mm                     | Electric on/off valve and pneumatic ejector pulse | 100 g          | 532648                   | VN-14-H-T4-PQ3-VQ3-R02-B |
| Electric on/off valve   |         |                            | 98 g                                              | 532644         | VN-14-H-T4-PQ3-VQ3-R02-M |                          |
| 24 mm                   |         | 2 mm                       |                                                   | 215 g          | 532656                   | VN-20-H-T6-PQ4-VQ5-R02-M |
|                         |         | 3 mm                       |                                                   |                | 532662                   | VN-30-H-T6-PQ4-VQ5-R02-M |

| Standard, high suction rate L |         |                            |                                                   |                |          |                          |
|-------------------------------|---------|----------------------------|---------------------------------------------------|----------------|----------|--------------------------|
| Grid dimension                | Design  | Nominal size, Laval nozzle | Integrated function                               | Product weight | Part no. | Type                     |
| 14 mm                         | T-shape | 0.45 mm                    | Electric on/off valve and pneumatic ejector pulse | 62 g           | 532623   | VN-05-L-T3-PQ2-VQ2-R01-B |
|                               |         |                            | Electric on/off valve                             | 60 g           | 532619   | VN-05-L-T3-PQ2-VQ2-R01-M |
|                               |         | 0.7 mm                     | Electric on/off valve and pneumatic ejector pulse | 63 g           | 532631   | VN-07-L-T3-PQ2-VQ2-R01-B |
|                               |         |                            | Electric on/off valve                             | 61 g           | 532627   | VN-07-L-T3-PQ2-VQ2-R01-M |
|                               |         | 0.95 mm                    | Electric on/off valve and pneumatic ejector pulse | 63 g           | 532641   | VN-10-L-T3-PQ2-VQ2-R01-B |
|                               |         |                            | Electric on/off valve                             | 61 g           | 532637   | VN-10-L-T3-PQ2-VQ2-R01-M |
| 18 mm                         | T-shape | 1.4 mm                     | Electric on/off valve and pneumatic ejector pulse | 100 g          | 532649   | VN-14-L-T4-PQ3-VQ3-R02-B |
|                               |         |                            | Electric on/off valve                             | 98 g           | 532645   | VN-14-L-T4-PQ3-VQ3-R02-M |

Peripherals

Peripherals overview



| Accessories                             |                                   | → Link              |
|-----------------------------------------|-----------------------------------|---------------------|
| Type/order code                         | Description                       |                     |
| [1] Vacuum generator                    | VN-05/07-...-A; straight shape    | <a href="#">vn</a>  |
| [2] Suction gripper ESG                 |                                   | <a href="#">ESG</a> |
| [3] Plug socket with cable, 2-pin, NEBV |                                   | <a href="#">22</a>  |
| [4] Vacuum generator                    | VN-05/07/10/14-...-A/M/B; T-shape | <a href="#">vn</a>  |
| [5] Mounting plate VN-T3/T4-BP          |                                   | <a href="#">21</a>  |
| [6] Silencer UOM                        |                                   | <a href="#">21</a>  |
| [7] Silencer extension UOMS             |                                   | <a href="#">21</a>  |
| [8] Silencer UO                         |                                   | <a href="#">21</a>  |
| [9] Vacuum generator                    | VN-20/30-...-M; T-shape           | <a href="#">vn</a>  |
| [10] Mounting plate VN-T6-BP-NRH        |                                   | <a href="#">21</a>  |

## Accessories

| Silencer UO                                                                       |                      |               |                                |                |          |        |
|-----------------------------------------------------------------------------------|----------------------|---------------|--------------------------------|----------------|----------|--------|
|                                                                                   | Pneumatic connection | Design        | Material shock absorber insert | Product weight | Part no. | Type   |
|  | M7                   | Open silencer | PE                             | 2.5 g          | 197582   | UO-M7  |
|                                                                                   | G1/8                 |               |                                | 5 g            | 197583   | UO-1/8 |
|                                                                                   | G1/4                 |               |                                | 8 g            | 197584   | UO-1/4 |

| Silencer UOM                                                                      |                      |               |                                |                |          |         |
|-----------------------------------------------------------------------------------|----------------------|---------------|--------------------------------|----------------|----------|---------|
|                                                                                   | Pneumatic connection | Design        | Material shock absorber insert | Product weight | Part no. | Type    |
|  | G1/4                 | Open silencer | PU foam                        | 11.1 g         | 538432   | UOM-1/4 |
|                                                                                   | G3/8                 |               |                                | 22.7 g         | 538433   | UOM-3/8 |

| Silencer extension UOMS                                                            |               |                  |                                |                |          |          |
|------------------------------------------------------------------------------------|---------------|------------------|--------------------------------|----------------|----------|----------|
|                                                                                    | Design        | Type of mounting | Material shock absorber insert | Product weight | Part no. | Type     |
|  | Open silencer | Snapping in      | PU foam                        | 8.6 g          | 538436   | UOMS-1/4 |
|                                                                                    |               |                  |                                | 17.5 g         | 538437   | UOMS-3/8 |

| Mounting plate VN-...-BP-NRH                                                        |                                |                        |                |          |              |
|-------------------------------------------------------------------------------------|--------------------------------|------------------------|----------------|----------|--------------|
|                                                                                     | Type of mounting               | LABS (PWIS) conformity | Product weight | Part no. | Type         |
|  | With through-hole, With H-rail | VDMA24364-B1/B2-L      | 3.5 g          | 193641   | VN-T3-BP-NRH |
|                                                                                     |                                |                        | 4.5 g          | 195279   | VN-T4-BP-NRH |
|                                                                                     |                                |                        | 5.5 g          | 196951   | VN-T2-BP-NRH |
|                                                                                     |                                |                        | 12.4 g         | 196956   | VN-T6-BP-NRH |

| Mounting plate VN-...-BP                                                            |                   |                        |                |          |          |
|-------------------------------------------------------------------------------------|-------------------|------------------------|----------------|----------|----------|
|                                                                                     | Type of mounting  | LABS (PWIS) conformity | Product weight | Part no. | Type     |
|  | With through-hole | VDMA24364-B1/B2-L      | 4.8 g          | 547436   | VN-T3-BP |
|                                                                                     |                   |                        | 6.4 g          | 547437   | VN-T4-BP |

| Plug socket with cable NEBV (2 single cables)                                       |                                          |                                           |              |                |          |                        |
|-------------------------------------------------------------------------------------|------------------------------------------|-------------------------------------------|--------------|----------------|----------|------------------------|
|                                                                                     | Electrical connection 2, connection type | Electrical connection 2, connector system | Cable length | Product weight | Part no. | Type                   |
|  | 2x single wires                          | Open end                                  | 0.5 m        | 4 g            | 566654   | NEBV-H1G2-KN-0.5-N-LE2 |
|                                                                                     |                                          |                                           | 1 m          | 7 g            | 566655   | NEBV-H1G2-KN-1-N-LE2   |
|                                                                                     |                                          |                                           | 5 m          | 31 g           | 566657   | NEBV-H1G2-KN-5-N-LE2   |

Accessories

| Plug socket with cable NEBV (cable 2-core)                                       |                                          |                                           |              |                |          |                       |
|----------------------------------------------------------------------------------|------------------------------------------|-------------------------------------------|--------------|----------------|----------|-----------------------|
|                                                                                  | Electrical connection 2, connection type | Electrical connection 2, connector system | Cable length | Product weight | Part no. | Type                  |
|  | Cable                                    | Open end                                  | 0.5 m        | 8 g            | 566658   | NEBV-H1G2-P-0.5-N-LE2 |
|                                                                                  |                                          |                                           | 1 m          | 16 g           | 566659   | NEBV-H1G2-P-1-N-LE2   |
|                                                                                  |                                          |                                           | 2.5 m        | 35 g           | 566660   | NEBV-H1G2-P-2.5-N-LE2 |
|                                                                                  |                                          |                                           | 5 m          | 70 g           | 566661   | NEBV-H1G2-P-5-N-LE2   |