

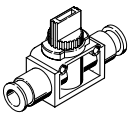
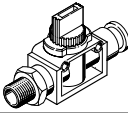
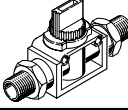
## Shut-off valves HE

**FESTO**



## Product range overview and type codes

## Product range overview

| Design   | Type | Pneumatic connection |       | Valve function |               | qnN     |
|--|------|----------------------|-------|----------------|---------------|---------|
|  |      | 1                    | 2     | 2/2-way valve  | 3/2-way valve | [l/min] |
| Push-in connector at both ends   |      |                      |       |                |               |         |
|  | HE   | QS-6                 | QS-6  | ■              | ■             | 256.5   |
|  |      | QS-8                 | QS-8  |                |               | 415.8   |
|  |      | QS-10                | QS-10 |                |               | 752.4   |
|  |      | QS-12                | QS-12 |                |               | 788.4   |
| Male thread/push-in connector  |      |                      |       |                |               |         |
|  | HE   | R1/8                 | QS-6  | ■              | ■             | 279.9   |
|  |      | R1/4                 | QS-8  |                |               | 423.9   |
|  |      | R3/8                 | QS-10 |                |               | 760.5   |
|  |      | R1/2                 | QS-12 |                |               | 834.3   |
| Male thread at both ends   |      |                      |       |                |               |         |
|  | HE   | R1/8                 | R1/8  | -              | ■             | 369.9   |
|  |      | R1/4                 | R1/4  |                |               | 625.5   |
|  |      | R3/8                 | R3/8  |                |               | 797.4   |

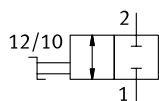
## Type codes

|            |                               |  |
|------------|-------------------------------|--|
| <b>001</b> | <b>Series</b>                 |  |
| HE         | Shut-off valve                |  |
| <b>002</b> | <b>Valve function</b>         |  |
| 2          | 2/2-way valve                 |  |
| 3          | 3/2-way valve                 |  |
| <b>003</b> | <b>Pneumatic connection 1</b> |  |
| 1/8        | Male thread R1/8              |  |
| 1/4        | Male thread R1/4              |  |
| 3/8        | Male thread R3/8              |  |
| 1/2        | Male thread R1/2              |  |
| QS-6       | Push-in connector 6 mm        |  |
| QS-8       | Push-in connector 8 mm        |  |
| QS-10      | Push-in connector 10 mm       |  |
| QS-12      | Push-in connector 12 mm       |  |

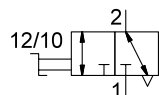
|            |   |  |
|------------|---|--|
| <b>004</b> | <b>Pneumatic connection 2</b>                         |  |
|            | Same size push-in connector as pneumatic connection 1 |  |
| 1/8        | Male thread R1/8                                      |  |
| 1/4        | Male thread R1/4                                      |  |
| 3/8        | Male thread R3/8                                      |  |
| QS-6       | Push-in connector 6 mm                                |  |
| QS-8       | Push-in connector 8 mm                                |  |
| QS-10      | Push-in connector 10 mm                               |  |
| QS-12      | Push-in connector 12 mm                               |  |

## Data sheet

HE-2



HE-3



- - Standard nominal flow rate  
256.5 ... 834.3 l/min
- - Temperature range  
0 ... +60°C
- - Operating pressure  
-0.095 ... 1 MPa

**General technical data – HE-2**

| General technical data – HE-2 |                                  |      |       |       |                            |      |       |       |
|-------------------------------|----------------------------------|------|-------|-------|----------------------------|------|-------|-------|
| Pneumatic connection 1        | QS-6                             | QS-8 | QS-10 | QS-12 | R1/8                       | R1/4 | R3/8  | R1/2  |
| Pneumatic connection 2        | QS-6                             | QS-8 | QS-10 | QS-12 | QS-6                       | QS-8 | QS-10 | QS-12 |
| Nominal width [mm]            | 3.0                              | 3.5  | 4.7   | 4.7   | 3.2                        | 3.5  | 4.6   | 7.7   |
| Design                        | Piston spool valve               |      |       |       |                            |      |       |       |
| Type of mounting              | In-line installation             |      |       |       | Direct mounting via thread |      |       |       |
|                               | Direct mounting via through-hole |      |       |       |                            |      |       |       |
| Mounting position             | Any                              |      |       |       |                            |      |       |       |
| Valve function                | 2/2-way, bistable                |      |       |       |                            |      |       |       |
| Actuation type                | Manual                           |      |       |       |                            |      |       |       |
| Type of control               | Direct                           |      |       |       |                            |      |       |       |
| Flow direction                | Non-reversible                   |      |       |       |                            |      |       |       |
| Sealing principle             | Soft                             |      |       |       |                            |      |       |       |

**General technical data – HE-3**

| General technical data – HE-5 |                                  |      |       |       |                            |      |      |      |       |      |       |  |
|-------------------------------|----------------------------------|------|-------|-------|----------------------------|------|------|------|-------|------|-------|--|
| Pneumatic connection 1        | QS-6                             | QS-8 | QS-10 | QS-12 | R1/8                       |      | R1/4 |      | R3/8  |      | R1/2  |  |
| Pneumatic connection 2        | QS-6                             | QS-8 | QS-10 | QS-12 | QS-6                       | R1/8 | QS-8 | R1/4 | QS-10 | R3/8 | QS-12 |  |
| Pneumatic connection 3        | Not ducted                       |      |       |       |                            |      |      |      |       |      |       |  |
| Nominal width [mm]            | 3.0                              | 3.5  | 4.6   | 4.7   | 3.2                        | 3.2  | 3.5  | 4.1  | 4.6   | 4.7  | 4.7   |  |
| Design                        | Piston spool valve               |      |       |       |                            |      |      |      |       |      |       |  |
| Type of mounting              | In-line installation             |      |       |       | Direct mounting via thread |      |      |      |       |      |       |  |
|                               | Direct mounting via through-hole |      |       |       |                            |      |      |      |       |      |       |  |
| Mounting position             | Any                              |      |       |       |                            |      |      |      |       |      |       |  |
| Valve function                | 3/2-way, bistable                |      |       |       |                            |      |      |      |       |      |       |  |
| Actuation type                | Manual                           |      |       |       |                            |      |      |      |       |      |       |  |
| Exhaust function              | Cannot be throttled              |      |       |       |                            |      |      |      |       |      |       |  |
| Type of control               | Direct                           |      |       |       |                            |      |      |      |       |      |       |  |
| Flow direction                | Non-reversible                   |      |       |       |                            |      |      |      |       |      |       |  |
| Sealing principle             | Soft                             |      |       |       |                            |      |      |      |       |      |       |  |

**Operating and environmental conditions**

|  |  |              |
|--|--|--------------|
| Operating pressure                           | [MPa]  | -0.095 ... 1 |
|  | [bar]  | -0.95 ... 10 |
| Operating medium                             | Compressed air to ISO 8573-1:2010 [7:-:-]  |              |
| Note on operating/<br>pilot medium           | Lubricated operation possible (in which case lubricated operation will always be required) |              |
| Ambient temperature                          | [°C]   | 0 ... +60    |
| Temperature of medium                        | [°C]   | 0 ... +60    |
| Corrosion resistance class CRC <sup>1)</sup> | 2  |              |

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

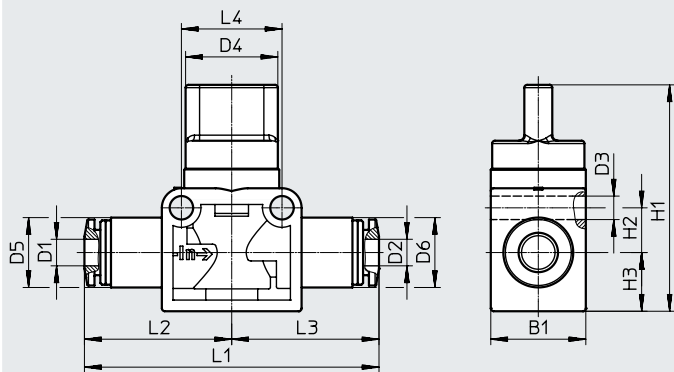
Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.

**Materials**

| Materials              |                |      |       |       |                     |      |      |      |
|------------------------|----------------|------|-------|-------|---------------------|------|------|------|
| Pneumatic connection 1 | QS-6           | QS-8 | QS-10 | QS-12 | R1/8                | R1/4 | R3/8 | R1/2 |
| Housing                | Reinforced PBT |      |       |       |                     |      |      |      |
| Screwed trunnion       | –              |      |       |       | Nickel-plated brass |      |      |      |
| Seals                  | NBR            |      |       |       |                     |      |      |      |
| Note on materials      | RoHS-compliant |      |       |       |                     |      |      |      |

## Data sheet

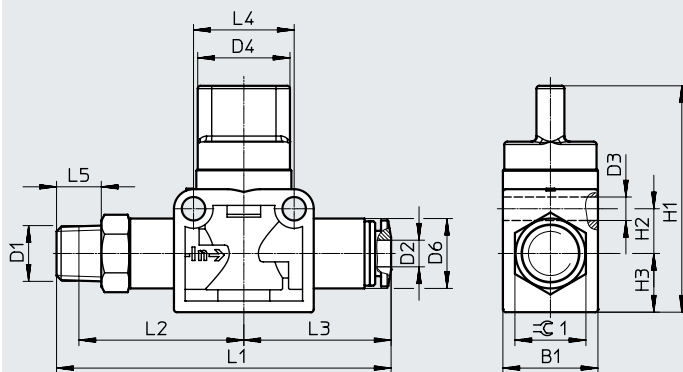
## Dimensions – Push-in connector, both ends

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

→ Flow direction (indicated by the arrow)

| Type         | B1   | D1<br>Ø | D2<br>Ø | D3<br>Ø | D4<br>Ø | D5<br>Ø | D6<br>Ø | H1   | H2 | H3   | L1   | L2   | L3   | L4 |
|--------------|------|---------|---------|---------|---------|---------|---------|------|----|------|------|------|------|----|
| HE-...-QS-6  | 17   | 6       | 6       | 4.2     | 16.5    | 12.5    | 12.5    | 40.5 | 8  | 10.5 | 52.7 | 26.4 | 26.4 | 18 |
| HE-...-QS-8  | 17   | 8       | 8       | 4.2     | 16.5    | 15      | 15      | 40.5 | 8  | 10.5 | 55.4 | 27.7 | 27.7 | 18 |
| HE-...-QS-10 | 21.7 | 10      | 10      | 4.2     | 19.5    | 17.5    | 17.5    | 41   | 11 | 10.5 | 64.4 | 32.2 | 32.2 | 24 |
| HE-...-QS-12 | 21.7 | 12      | 12      | 4.2     | 19.5    | 21      | 21      | 41   | 11 | 10.5 | 69.8 | 34.9 | 34.9 | 24 |

## Dimensions – Male thread/push-in connector

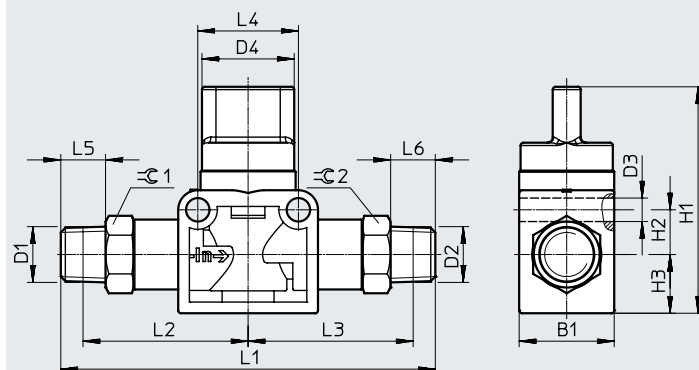
Download CAD data → [www.festo.com](http://www.festo.com)

→ Flow direction (indicated by the arrow)

| Type             | B1   | D1   | D2<br>Ø | D3<br>Ø | D4<br>Ø | D6<br>Ø | H1   | H2 | H3   | L1   | L2   | L3   | L4 | L5 | ≅ 1 |
|------------------|------|------|---------|---------|---------|---------|------|----|------|------|------|------|----|----|-----|
| HE-...-1/8-QS-6  | 17   | R1/8 | 6       | 4.2     | 16.5    | 12.5    | 40.5 | 8  | 10.5 | 59.9 | 29.5 | 26.4 | 18 | 8  | 12  |
| HE-...-1/4-QS-8  | 17   | R1/4 | 8       | 4.2     | 16.5    | 15      | 40.5 | 8  | 10.5 | 64.2 | 30.5 | 27.7 | 18 | 11 | 14  |
| HE-...-3/8-QS-10 | 21.7 | R3/8 | 10      | 4.2     | 19.5    | 17.5    | 41   | 11 | 10.5 | 75.7 | 37   | 32.2 | 24 | 12 | 17  |
| HE-...-1/2-QS-12 | 21.7 | R1/2 | 12      | 4.2     | 19.5    | 21      | 41   | 11 | 10.5 | 81.4 | 38.5 | 34.9 | 24 | 15 | 21  |

## Data sheet

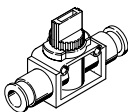
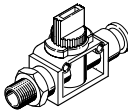
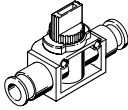
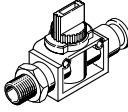
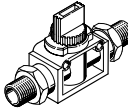
## Dimensions – Male thread at both ends

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

→ Flow direction (indicated by the arrow)

| Type         | B1   | D1   | D2   | D3<br>ø | D4<br>ø | H1   | H2 | H3   | L1 | L2   | L3   | L4 | L5 | L6 | ≈G 1 | ≈G 2 |
|--------------|------|------|------|---------|---------|------|----|------|----|------|------|----|----|----|------|------|
| HE-3-1/8-1/8 | 17   | R1/8 | R1/8 | 4.2     | 16.5    | 40.5 | 8  | 10.5 | 67 | 29.5 | 29.5 | 18 | 8  | 8  | 12   | 12   |
| HE-3-1/4-1/4 | 21.7 | R1/4 | R1/4 | 4.2     | 19.5    | 41   | 11 | 10.5 | 85 | 36.5 | 36.5 | 24 | 11 | 11 | 14   | 14   |
| HE-3-3/8-3/8 | 21.7 | R3/8 | R3/8 | 4.2     | 19.5    | 41   | 11 | 10.5 | 87 | 37.2 | 37.2 | 24 | 12 | 12 | 17   | 17   |

## Ordering data

| Design  |                                | Pneumatic connection |       | Standard nominal flow rate q <sub>nN</sub><br>[l/min] | Weight<br>[g] | Part no. | Type           |
|---|--------------------------------|----------------------|-------|---|---------------|----------|----------------|
|   |                                | 1                    | 2     |   |               |          |                |
| 2/2-way valve   |                                |                      |       |   |               |          |                |
|  | Push-in connector at both ends | QS-6                 | QS-6  | 256.5   | 23            | 153467   | HE-2-QS-6      |
|   |                                | QS-8                 | QS-8  | 415.8   | 26            | 153468   | HE-2-QS-8      |
|   |                                | QS-10                | QS-10 | 752.4   | 41            | 153469   | HE-2-QS-10     |
|   |                                | QS-12                | QS-12 | 788.4   | 47            | 153470   | HE-2-QS-12     |
|  | Male thread/push-in connector  | R1/8                 | QS-6  | 279.9   | 29            | 153471   | HE-2-1/8-QS-6  |
|   |                                | R1/4                 | QS-8  | 423.9   | 36            | 153472   | HE-2-1/4-QS-8  |
|   |                                | R3/8                 | QS-10 | 760.5   | 60            | 153473   | HE-2-3/8-QS-10 |
|   |                                | R1/2                 | QS-12 | 834.3   | 86            | 153474   | HE-2-1/2-QS-12 |
| 3/2-way valve   |                                |                      |       |   |               |          |                |
|  | Push-in connector at both ends | QS-6                 | QS-6  | 256.5   | 23            | 153475   | HE-3-QS-6      |
|   |                                | QS-8                 | QS-8  | 415.8   | 26            | 153476   | HE-3-QS-8      |
|   |                                | QS-10                | QS-10 | 752.4   | 41            | 153477   | HE-3-QS-10     |
|   |                                | QS-12                | QS-12 | 788.4   | 47            | 153478   | HE-3-QS-12     |
|  | Male thread/push-in connector  | R1/8                 | QS-6  | 279.9   | 29            | 153479   | HE-3-1/8-QS-6  |
|   |                                | R1/4                 | QS-8  | 423.9   | 36            | 153480   | HE-3-1/4-QS-8  |
|   |                                | R3/8                 | QS-10 | 760.5   | 60            | 153481   | HE-3-3/8-QS-10 |
|   |                                | R1/2                 | QS-12 | 834.3   | 86            | 153482   | HE-3-1/2-QS-12 |
|  | Male thread at both ends       | R1/8                 | R1/8  | 369.9   | 35            | 153296   | HE-3-1/8-1/8   |
|   |                                | R1/4                 | R1/4  | 625.5   | 58            | 153297   | HE-3-1/4-1/4   |
|   |                                | R3/8                 | R3/8  | 797.4   | 79            | 153298   | HE-3-3/8-3/8   |