



- Electrically or pneumatically actuated valves
- With internal or external pilot air
- Sturdy and reliable

Specified types in accordance with ATEX directive for potentially explosive atmospheres

→ www.festo.com/en/ex

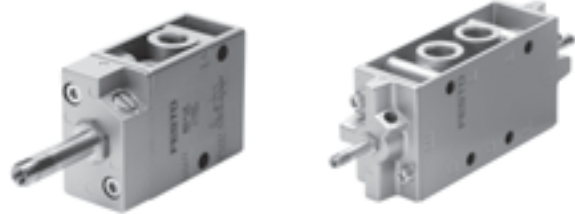
Solenoid/pneumatic valves, Tiger Classic

Key features



General information

- Highly durable poppet valve concept for all 3/2 and 5/2-way valves
- Pneumatic or electrical actuation with F solenoid coil
- With flow rates of up to 7,500 l/min
- Pipe thread in sizes G1/8, G1/4, G1/2 and G3/4
- Tried and tested assembly on PAL or PRS manifold strips with hollow bolts
- Optimised response times with patented U-ring and servo control



Solenoid coils

F solenoid coils

Voltage:

- 12 to 230 V DC
- 12 to 240 V AC (50 to 60 Hz)

Power consumption:

- 4.5 W

- Selected types acc. to ATEX directive for explosive atmospheres

- Easily interchangeable solenoid coils
- Solenoid coil not included in scope of delivery

Variants

VL/O-3-...

Depending upon selected connections:
Normally closed or normally open

MFH-3-..., MOFH-3-...

- MFH-3-...
Normally closed
- MOFH-3-...
Normally open

These valves can be converted from one function to the other by rotating the seal under the cover.

MFH-3-...-S

This valve type can be used within a range of 0 to 8 bar and also as MOFH (through flow when not actuated) with a separate pilot line.

MFH-5-...-S

The external pilot air connection means that these valves can also be used with low operating pressures.

Solenoid/pneumatic valves, Tiger Classic

Key features

Manifold mounting

With PAL manifold strip



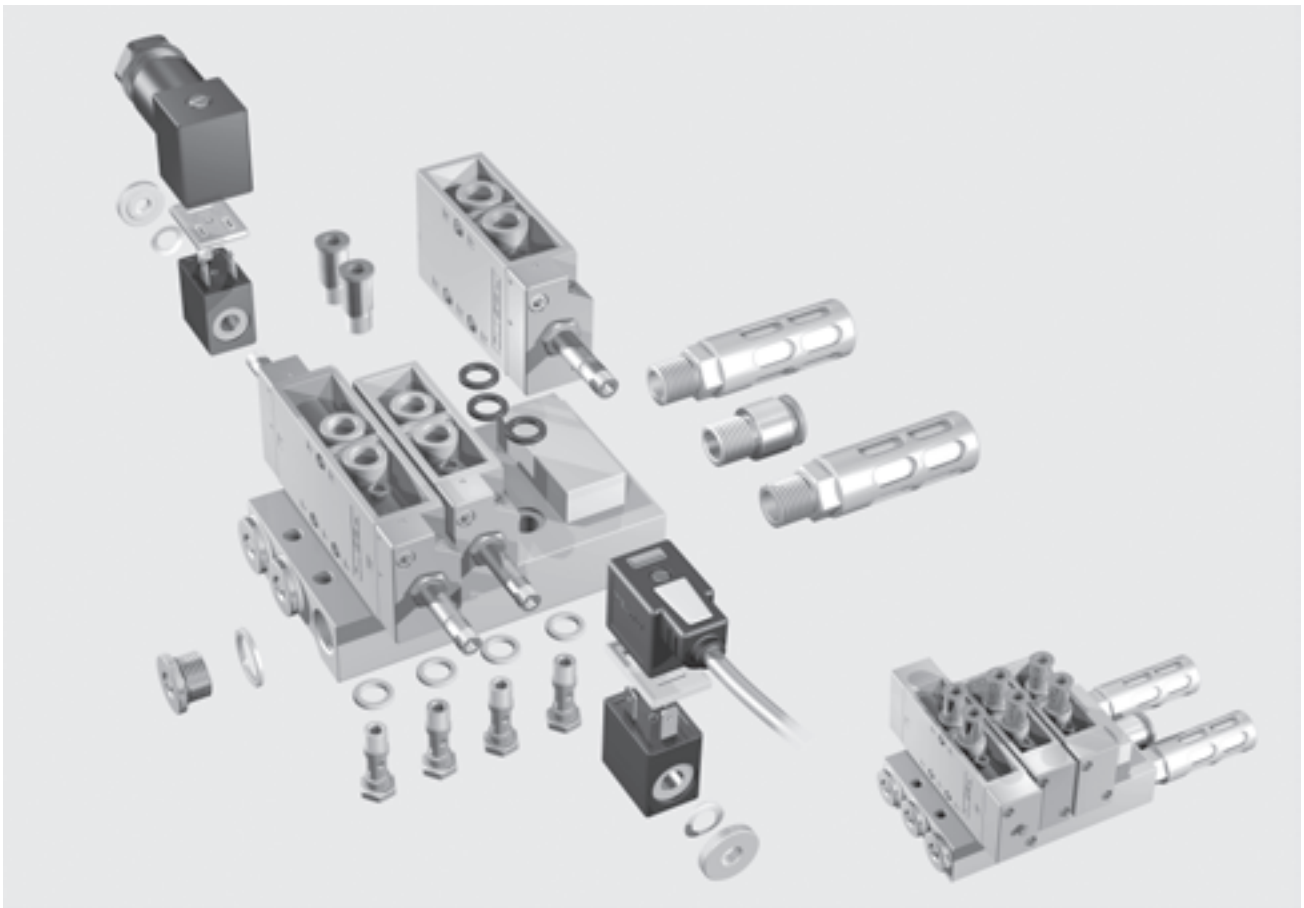
With PRS manifold block



The Tiger Classic valves can be mounted on PAL manifold strips with common supply port or on PRS manifold blocks with common supply port and common exhausts. The valves are mounted on the strips and blocks with hollow bolts. The manifold strip and manifold block have 2 to 6 valve positions.

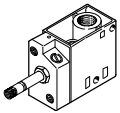
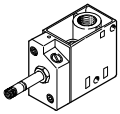
Vacant positions can be sealed on PAL manifold strips with blanking caps, or with blanking plates on PRS manifold blocks.

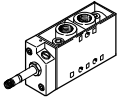
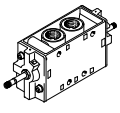
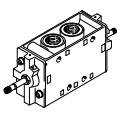
Separate pressure levels can be provided to individual valves by means of hollow bolts with threaded connection.



Solenoid valves, Tiger Classic

Product range overview

| Function | Design | Type | Pneumatic connection | Operating voltage | |
|----------------|---|------|----------------------|-------------------|---------------------------|
| | | | | [V DC] | [V AC] |
| 3/2-way valves | Solenoid valve | | | | |
| |  | MFH | G1/8 | 12, 24, 42, 48 | 24, 42, 48, 110, 230, 240 |
| | | | G1/4 | | |
| | | | G1/2 | | |
| | | | G3/4 | | |
| |  | MOFH | G1/8 | 12, 24, 42, 48 | 24, 42, 48, 110, 230, 240 |
| | | | G1/4 | | |
| | | | G1/2 | | |
| G3/4 | | | | | |

| Function | Design | Type | Pneumatic connection | Operating voltage | | |
|---|---|------|----------------------|---------------------------|---------------------------|--|
| | | | | [V DC] | [V AC] | |
| 5/2-way valves | Solenoid valve | | | | | |
| |  | MFH | G1/8 | 12, 24, 42, 48 | 24, 42, 48, 110, 230, 240 | |
| | | | G1/4 | | | |
| | | | G1/2 | | | |
| | | | | | | |
| | Double solenoid valve | | | | | |
| |  | JMFH | G1/8 | 12, 24, 42, 48 | 24, 42, 48, 110, 230, 240 | |
| | | | G1/4 | | | |
| | | | G1/2 | | | |
| | | | | | | |
| Double solenoid valve with dominant signal | | | | | | |
|  | JMFH | G1/8 | 12, 24, 42, 48 | 24, 42, 48, 110, 230, 240 | | |
| | | G1/4 | | | | |

Solenoid valves, Tiger Classic

Product range overview

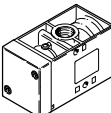
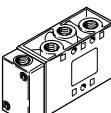
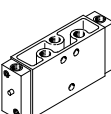
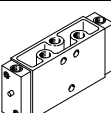
| Type | Normal position | | Pilot air supply | | Type of reset | | → Page/Internet |
|-----------------------|-----------------|------|------------------|----------|---------------|-------------------|-----------------|
| | Closed | Open | Internal | External | Air spring | Mechanical spring | |
| Solenoid valve | | | | | | | |
| MFH | ■ | - | ■ | ■ | - | ■ | 12 |
| | ■ | - | ■ | ■ | - | ■ | |
| | ■ | - | ■ | ■ | - | ■ | |
| | ■ | - | ■ | ■ | - | ■ | |
| MOFH | - | ■ | ■ | - | - | ■ | 12 |
| | - | ■ | ■ | - | - | ■ | |
| | - | ■ | ■ | - | - | ■ | |
| | - | ■ | ■ | - | - | ■ | |

| Type | Pilot air supply | | Type of reset | | → Page/Internet |
|---|------------------|----------|---------------|-------------------|-----------------|
| | Internal | External | Air spring | Mechanical spring | |
| Solenoid valve | | | | | |
| MFH | ■ | ■ | - | ■ | 17 |
| | ■ | ■ | - | ■ | |
| | ■ | ■ | - | ■ | |
| Double solenoid valve | | | | | |
| JMFH | ■ | ■ | - | - | 22 |
| | ■ | ■ | - | - | |
| | ■ | ■ | - | - | |
| Double solenoid valve with dominant signal | | | | | |
| JMFHDH | - | ■ | - | - | 22 |
| | - | ■ | - | - | |

Pneumatic valves, Tiger Classic

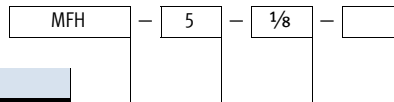
Product range overview



| Function | Design | Type | Pneumatic connection | Type of reset | | → Page/Internet | |
|----------------|---|------|----------------------|---------------|-------------------|-----------------|--|
| | | | | Air spring | Mechanical spring | | |
| 3/2-way valves |  | VL/O | G1/8 | - | ■ | 29 | |
| | | | G1/4 | - | ■ | | |
| | | | G1/2 | - | ■ | | |
| | | | G3/4 | - | ■ | | |
| 5/2-way valves |  | VL | G1/8 | - | ■ | 33 | |
| | | | G1/4 | - | ■ | | |
| | | | G1/2 | - | ■ | | |
| | Double pilot valve | | | | | | |
| |  | JH | G1/8 | - | - | 36 | |
| | | | G1/4 | - | - | | |
| | | | G1/2 | - | - | | |
| | Double pilot valve with dominant signal | | | | | | |
| |  | JDH | G1/8 | - | - | 36 | |
| | | | G1/4 | - | - | | |

Solenoid valves, Tiger Classic

Type codes



Type

| | |
|-------|--|
| MFH | Single solenoid, for F solenoid coil, normally closed |
| MOFH | Single solenoid, for F solenoid coil, normally open |
| JMFH | Double solenoid, for F solenoid coil |
| JMFDH | Double solenoid, for F solenoid coil, with dominant signal |

Valve function

| | |
|---|---------------|
| 3 | 3/2-way valve |
| 5 | 5/2-way valve |

Pneumatic connection

| | |
|-----|------|
| 1/8 | G1/8 |
| 1/4 | G1/4 |
| 1/2 | G1/2 |
| 3/4 | G3/4 |

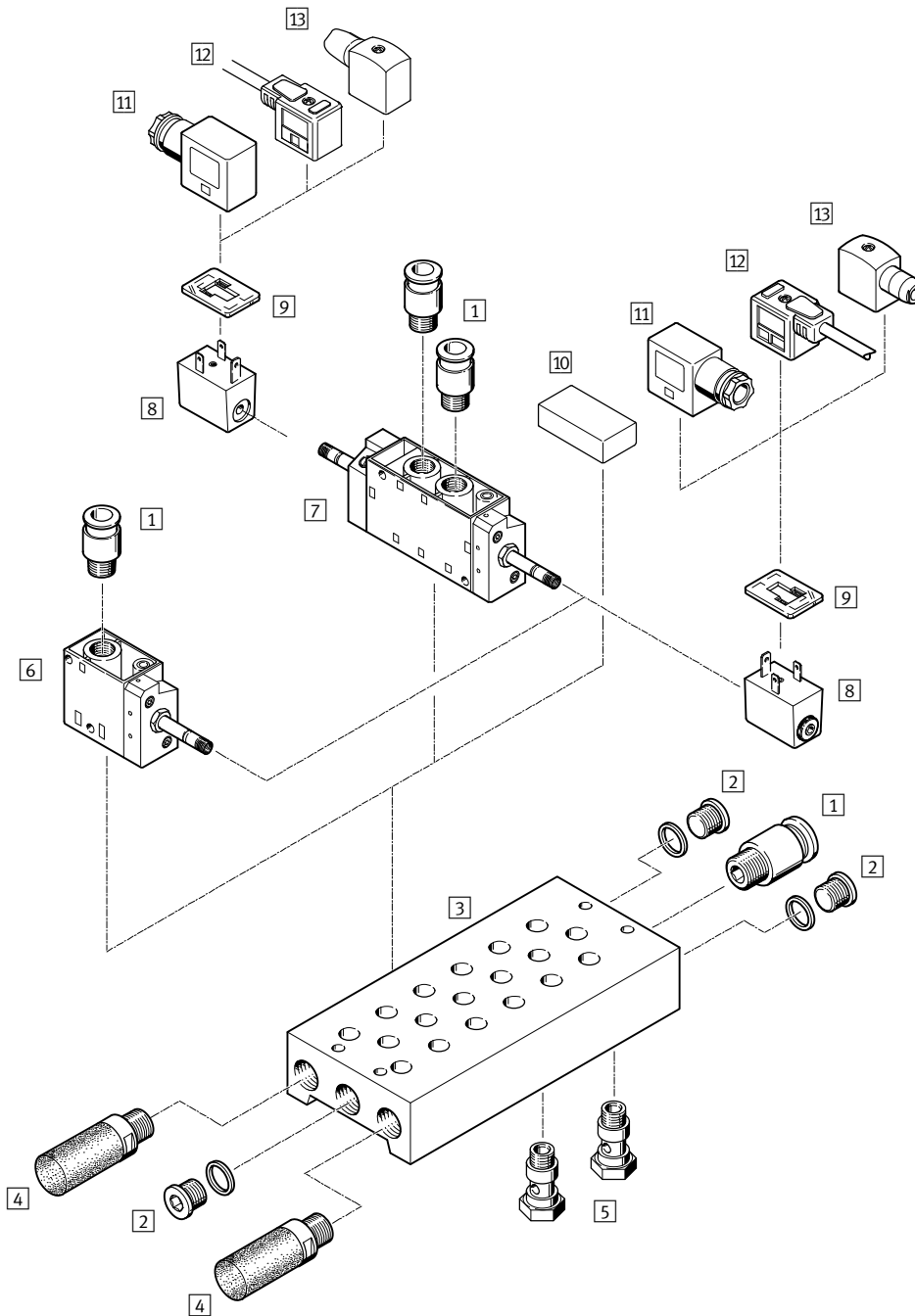
Pilot air supply

| | |
|---|----------|
| | Internal |
| S | External |

Solenoid valves, Tiger Classic

Peripherals overview

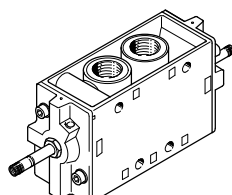
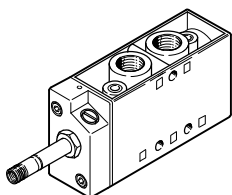
Mounting on manifold block



Variants

MFH-5-...

JMFH-5-...



Solenoid valves, Tiger Classic

Peripherals overview

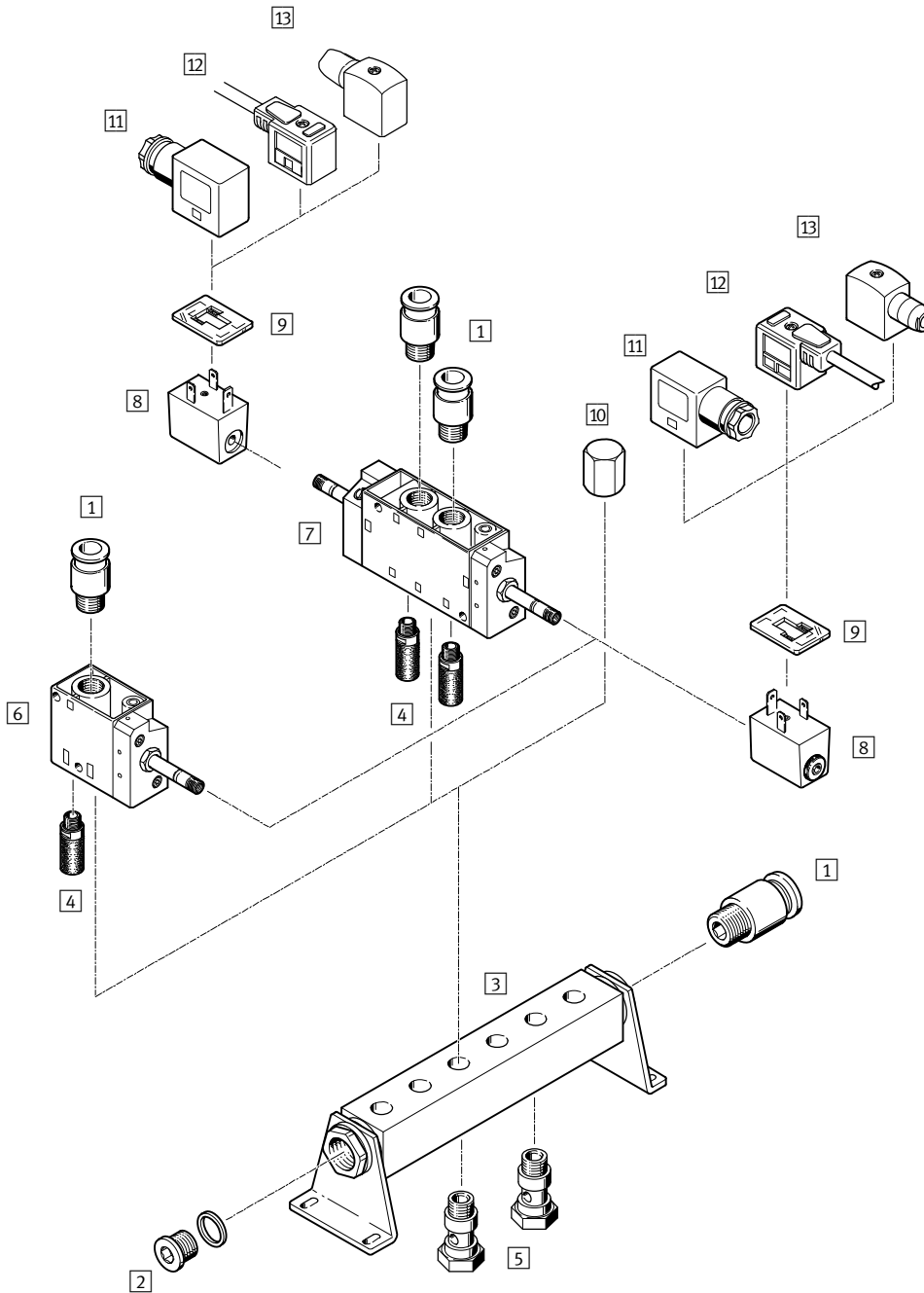
| Accessories | | |
|-------------|-------------------------------|--|
| | Brief description | → Page/Internet |
| 1 | Push-in fitting QS | For connecting standard O.D. tubing quick star |
| 2 | Blanking plug B | 3 included in the scope of delivery for PRS manifold block blanking plug |
| 3 | Manifold block PRS | 42 |
| 4 | Silencer | For fitting in exhaust ports u |
| 5 | Hollow bolt VT | For distribution of compressed air or for separate compressed air supply 41 |
| 6 | Solenoid valve MFH | For F solenoid coil 4 |
| 7 | Double solenoid valve JMFH | For F solenoid coil 4 |
| 8 | F solenoid coil MSFG, MSFW | msfg, msfw |
| 9 | Luminescent seal M...-LD | For displaying the switching status 44 |
| 10 | Blanking plate PRSB | For covering an unused valve position 43 |
| 11 | Plug socket MSSD-F | For valves MFH, JMFH 44 |
| 12 | Plug socket with cable KMF | For valves MFH, JMFH 44 |
| 13 | Plug socket MSSD-F-S | For valves MFH, JMFH 44 |

Solenoid valves, Tiger Classic

Peripherals overview

FESTO

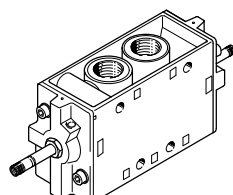
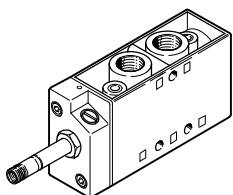
Mounting on manifold strip



Variants

MFH-5-...

JMFH-5-...



Solenoid valves, Tiger Classic



Peripherals overview

| Accessories | | |
|-------------|-------------------------------|--|
| | Brief description | → Page/Internet |
| 1 | Push-in fitting QS | For connecting standard O.D. tubing quick star |
| 2 | Blanking plug B | 1 included in the scope of delivery for PAL manifold strip blanking plug |
| 3 | Manifold strip PAL | 40 |
| 4 | Silencer | For fitting in exhaust ports u |
| 5 | Hollow bolt VT | For distribution of compressed air or for separate compressed air supply 41 |
| 6 | Solenoid valve MFH | For F solenoid coil 4 |
| 7 | Double solenoid valve JMFH | For F solenoid coil 4 |
| 8 | F solenoid coil MSFG, MSFW | msfg, msfw |
| 9 | Luminescent seal M...-LD | For displaying the switching status 44 |
| 10 | Blanking cap VTM | For blanking an unused valve position 41 |
| 11 | Plug socket MSSD-F | For valves MFH, JMFH 44 |
| 12 | Plug socket with cable KMF | For valves MFH, JMFH 44 |
| 13 | Plug socket MSSD-F-S | For valves MFH, JMFH 44 |

Solenoid valves MFH, Tiger Classic

FESTO

Technical data – 3/2-way valves

-  - Flow rate
500 ... 7500 l/min
-  - Voltage
12, 24, 42, 48 V DC
24, 42, 48, 110, 230,
240 V AC

Wearing parts kits → 16



| General technical data | | | | | |
|----------------------------|---------|--------------------------|------|------|------|
| Pneumatic connection | | G1/8 | G1/4 | G1/2 | G3/4 |
| Valve function | | 3/2-way, single solenoid | | | |
| Constructional design | | Poppet valve | | | |
| Sealing principle | | Soft | | | |
| Actuation type | | Electrical | | | |
| Type of reset | | Mechanical spring | | | |
| Type of control | | Piloted | | | |
| Pilot air supply | | Internal or external | | | |
| Direction of flow | | Non reversible | | | |
| Exhaust function | | With flow control | | | |
| Manual override | | Detenting | | | |
| Type of mounting | | Via through holes | | | |
| Mounting position | | Any | | | |
| Nominal size | [mm] | 5 | 7 | 14 | 19 |
| Standard nominal flow rate | [l/min] | 500 | 800 | 3700 | 7500 |
| Product weight | [g] | 240 | 320 | 1100 | 1260 |

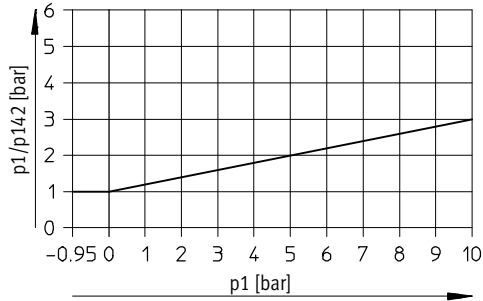
| Operating and environmental conditions | | | | | |
|--|---------------------------|--|---------------------------|------|---------|
| Pneumatic connection | | G1/8 | G1/4 | G1/2 | G3/4 |
| Operating medium | | Compressed air in accordance with ISO 8573-1:2010 [7:4:4] | | | |
| Note on operating/pilot medium | | Operation with lubricated medium possible (in which case lubricated operation will always be required) | | | |
| Operating pressure | Internal pilot air supply | [bar] | 1.5 ... 8 | | 2 ... 8 |
| | External pilot air supply | [bar] | -0.95 ... +10 | | |
| Pilot pressure | | [bar] | 1 ... 8 | | |
| Ambient temperature | | [°C] | -5 ... +40 | | |
| Temperature of medium | | [°C] | -10 ... +60 | | |
| Note on materials | | RoHS-compliant | | | |
| Certification | | | c CSA us (OL) | | - |
| | | | c UL us - Recognized (HL) | | - |

Solenoid valves MFH, Tiger Classic

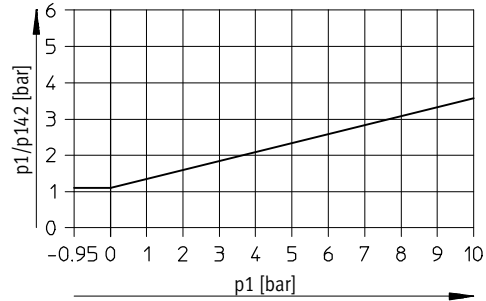
Technical data – 3/2-way valves

Minimal pilot pressure p_{12}/p_{14} as a function of operating pressure p_1 (external pilot air supply)

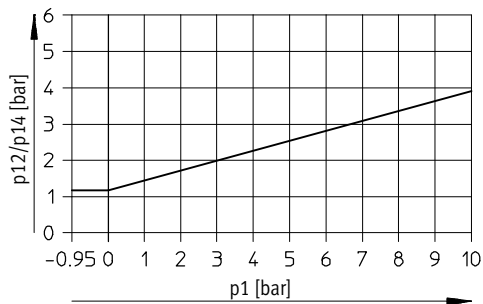
MFH-3-1/8-S



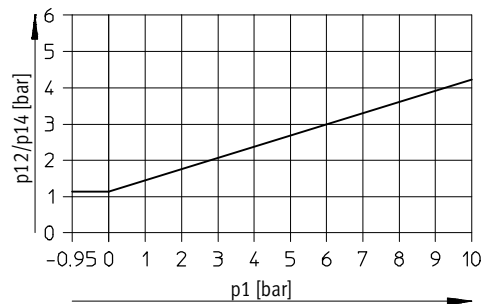
MFH-3-1/4-S



MFH-3-1/2-S



MFH-3-3/4-S



Valve response times [ms]

| Pneumatic connection | G1/8 | | G1/4 | | G1/2 | | G3/4 | |
|---------------------------|--------|------|--------|------|--------|------|--------|------|
| Normal position | Closed | Open | Closed | Open | Closed | Open | Closed | Open |
| Internal pilot air supply | | | | | | | | |
| On | 9 | 9 | 10 | 15 | 18 | 18 | 40 | 40 |
| Off | 29 | 29 | 29 | 45 | 90 | 90 | 29 | 29 |
| External pilot air supply | | | | | | | | |
| On | 9 | - | 10 | - | 18 | - | 40 | - |
| Off | 29 | - | 29 | - | 90 | - | 29 | - |

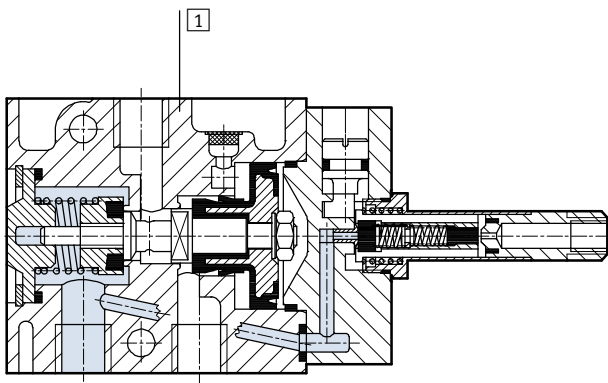
Solenoid valves MFH, Tiger Classic

Technical data – 3/2-way valves

| Electrical data | | | |
|-------------------------------|--------------|---|--|
| F solenoid coil | | | |
| Electrical connection | | Plug vanes for plug sockets MSSD-F, KMF | |
| Operating voltage | D.C. voltage | [V DC] | 12, 24, 42, 48 |
| | A.C. voltage | [V AC] | 24, 42, 48, 110, 230, 240 (50 ... 60 Hz) |
| Coil characteristics | D.C. voltage | [W] | 4.5 |
| | A.C. voltage | [VA] | Pull: 7.5 Hold: 6 |
| Protection class to EN 60 529 | | IP65 (in combination with plug socket) | |

Materials

Sectional view



| | | |
|---|---------|------------------------------|
| 1 | Housing | Aluminium die-cast, anodised |
| - | Seals | Nitrile rubber |

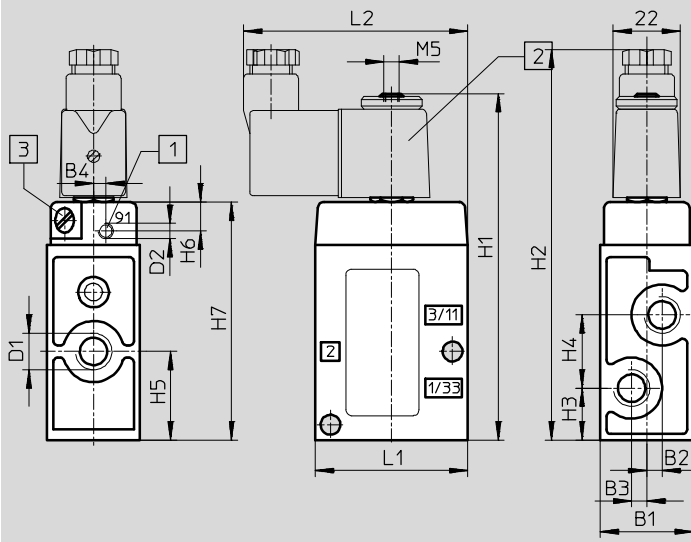
Solenoid valves MFH, Tiger Classic

Technical data – 3/2-way valves

Dimensions

Download CAD data → www.festo.com

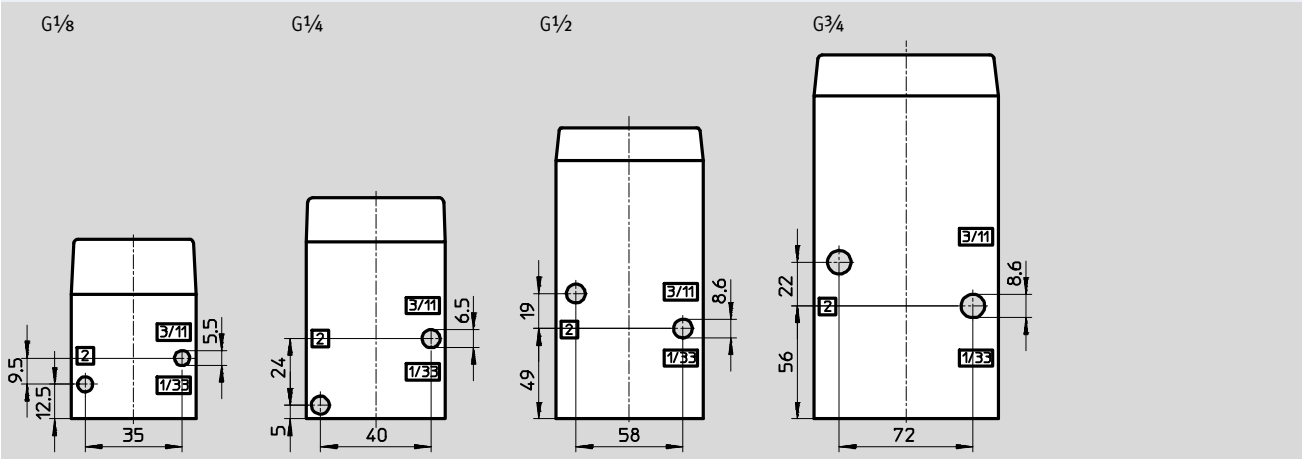
MFH, MOFH



- 1 Additional connection for external pilot air with MFH-3-...-S
- 2 Solenoid coil is 360° rotatable
- 3 Manual override can be repositioned by 180°

| Pneumatic connection | B1 | B2 | B3 | B4 | D1 | D2 | H1 | H2 | H3 | H4 | H5 | H6 | H7 | L1 | L2 |
|-------------------------------|------|-----|-----|-----|-------------------------------|-------------------------------|-----|-----|------|----|----|------|-----|----|----|
| G ¹ / ₈ | 26 | 3.5 | 3.5 | 2.7 | G ¹ / ₈ | M5 | 97 | 111 | 12.5 | 19 | 22 | 9.5 | 63 | 45 | 71 |
| G ¹ / ₄ | 30.4 | 5 | 5 | 4 | G ¹ / ₄ | M5 | 112 | 126 | 17 | 24 | 29 | 9.5 | 78 | 50 | 74 |
| G ¹ / ₂ | 52 | 8 | 8 | - | G ¹ / ₂ | G ¹ / ₈ | 151 | 165 | 30 | 38 | 49 | 10.5 | 117 | 80 | 89 |
| G ³ / ₄ | 68 | 8 | 8 | - | G ³ / ₄ | G ¹ / ₈ | 171 | 185 | 34 | 44 | 56 | 11 | 137 | 92 | 95 |

Attachment diagram



Solenoid valves MFH, Tiger Classic

Technical data – 3/2-way valves



| Ordering data | | | | |
|----------------|--|----------------------|--------------|--------------------|
| Circuit symbol | Description | Pneumatic connection | Part No. | Type |
| | Without F solenoid coil ¹⁾ , internal pilot air supply | G $\frac{1}{8}$ | 7802 | MFH-3-1/8 |
| | | G $\frac{1}{4}$ | 9964 | MFH-3-1/4 |
| | | G $\frac{1}{2}$ | 9857 | MFH-3-1/2 |
| | | G $\frac{3}{4}$ | 11967 | MFH-3-3/4 |
| | Without F solenoid coil ¹⁾ , internal pilot air supply | G $\frac{1}{8}$ | 7877 | MOFH-3-1/8 |
| | | G $\frac{1}{4}$ | 7876 | MOFH-3-1/4 |
| | | G $\frac{1}{2}$ | 7884 | MOFH-3-1/2 |
| | | G $\frac{3}{4}$ | 11969 | MOFH-3-3/4 |
| | Without F solenoid coil ¹⁾ , external pilot air supply | G $\frac{1}{8}$ | 7958 | MFH-3-1/8-S |
| | | G $\frac{1}{4}$ | 7959 | MFH-3-1/4-S |
| | | G $\frac{1}{2}$ | 7960 | MFH-3-1/2-S |
| | | G $\frac{3}{4}$ | 11968 | MFH-3-3/4-S |

1) F solenoid coils → 44

| Ordering data – Wearing parts kits | | |
|------------------------------------|---------------|------------------|
| Pneumatic connection | Part No. | Type |
| G $\frac{1}{8}$ | 104206 | MFH-3-1/8 |
| G $\frac{1}{4}$ | 104207 | MFH-3-1/4 |
| G $\frac{1}{2}$ | 104208 | MFH-3-1/2 |

Solenoid valves MFH, Tiger Classic

Technical data – 5/2-way valves

-  - Flow rate
500 ... 3700 l/min
-  - Voltage
12, 24, 42, 48 V DC
24, 42, 48, 110, 230,
240 V AC

Wearing parts kits → 21



| General technical data | | | | |
|----------------------------|---------|--------------------------|------|------|
| Pneumatic connection | | G1/8 | G1/4 | G1/2 |
| Valve function | | 5/2-way, single solenoid | | |
| Constructional design | | Poppet valve | | |
| Sealing principle | | Soft | | |
| Actuation type | | Electrical | | |
| Type of reset | | Mechanical spring | | |
| Type of control | | Piloted | | |
| Direction of flow | | Non reversible | | |
| Pilot air supply | | Internal or external | | |
| Exhaust function | | With flow control | | |
| Manual override | | Detenting | | |
| Type of mounting | | Via through holes | | |
| Mounting position | | Any | | |
| Nominal size | [mm] | 5 | 7 | 14 |
| Standard nominal flow rate | [l/min] | 500 | 1000 | 3700 |
| Product weight | [g] | 270 | 290 | 1135 |

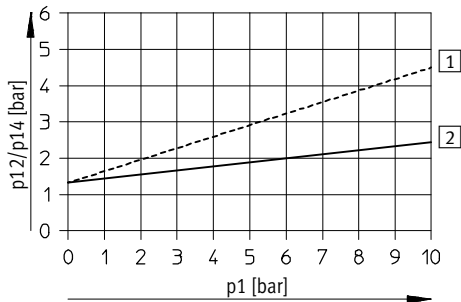
| Operating and environmental conditions | | | | | |
|--|---------------------------|--|----------------|-----------|-----------|
| Pneumatic connection | | G1/8 | G1/4 | G1/2 | |
| Operating medium | | Compressed air in accordance with ISO 8573-1:2010 [7:4:4] | | | |
| Note on operating/pilot medium | | Operation with lubricated medium possible (in which case lubricated operation will always be required) | | | |
| Operating pressure | Internal pilot air supply | [bar] | 1.8 ... 8 | 2.2 ... 8 | 2 ... 8 |
| | External pilot air supply | [bar] | 0 ... 10 | 0 ... 8 | 0 ... 8 |
| Pilot pressure | | [bar] | 1 ... 8 | 1.5 ... 8 | 1.5 ... 8 |
| Ambient temperature | | [°C] | -5 ... +40 | | |
| Temperature of medium | | [°C] | -10 ... +60 | | |
| Note on materials | | | RoHS-compliant | | |

Solenoid valves MFH, Tiger Classic

Technical data – 5/2-way valves

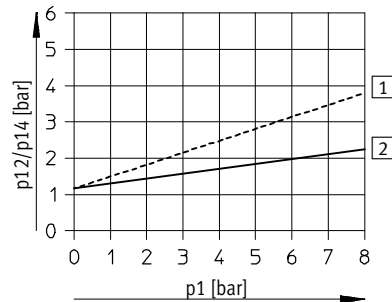
Minimal pilot pressure p_{12} , p_{14} as a function of operating pressure p_1 (external pilot air supply)

MFH-5-1/8-S



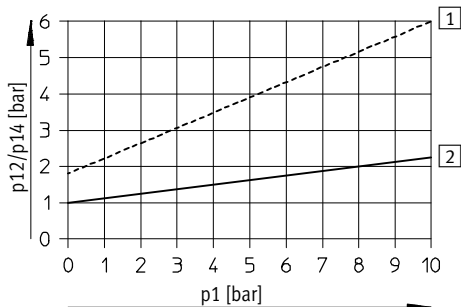
----- Exhaust throttled
 ——— Exhaust unthrottled

MFH-5-1/4-S



----- Exhaust throttled
 ——— Exhaust unthrottled

MFH-5-1/2-S



----- Exhaust throttled
 ——— Exhaust unthrottled

| Valve response times [ms] | | | | | | |
|---------------------------|-----------------|----------|-----------------|----------|-----------------|----------|
| Pneumatic connection | G $\frac{1}{8}$ | | G $\frac{1}{4}$ | | G $\frac{1}{2}$ | |
| Pilot air supply | Internal | External | Internal | External | Internal | External |
| On | 8 | 8 | 9 | 9 | 15 | 21 |
| Off | 36 | 36 | 29 | 29 | 154 | 150 |

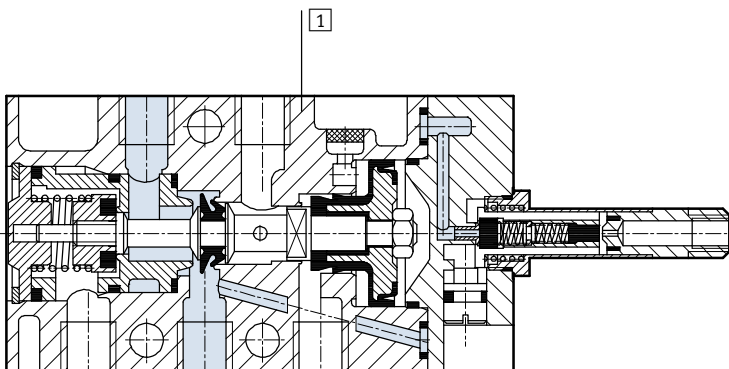
Solenoid valves MFH, Tiger Classic

Technical data – 5/2-way valves

| Electrical data | | | |
|-------------------------------|--------------|---|--|
| F solenoid coil | | | |
| Electrical connection | | Plug vanes for plug sockets MSSD-F, KMF | |
| Operating voltage | D.C. voltage | [V DC] | 12, 24, 42, 48 |
| | A.C. voltage | [V AC] | 24, 42, 48, 110, 230, 240 (50 ... 60 Hz) |
| Coil characteristics | D.C. voltage | [W] | 4.5 |
| | A.C. voltage | [VA] | Pull: 7.5 Hold: 6 |
| Protection class to EN 60 529 | | IP65 (in combination with plug socket) | |

Materials

Sectional view



| | | |
|---|---------|------------------------------|
| 1 | Housing | Aluminium die-cast, anodised |
| - | Seals | Nitrile rubber |

Solenoid valves MFH, Tiger Classic

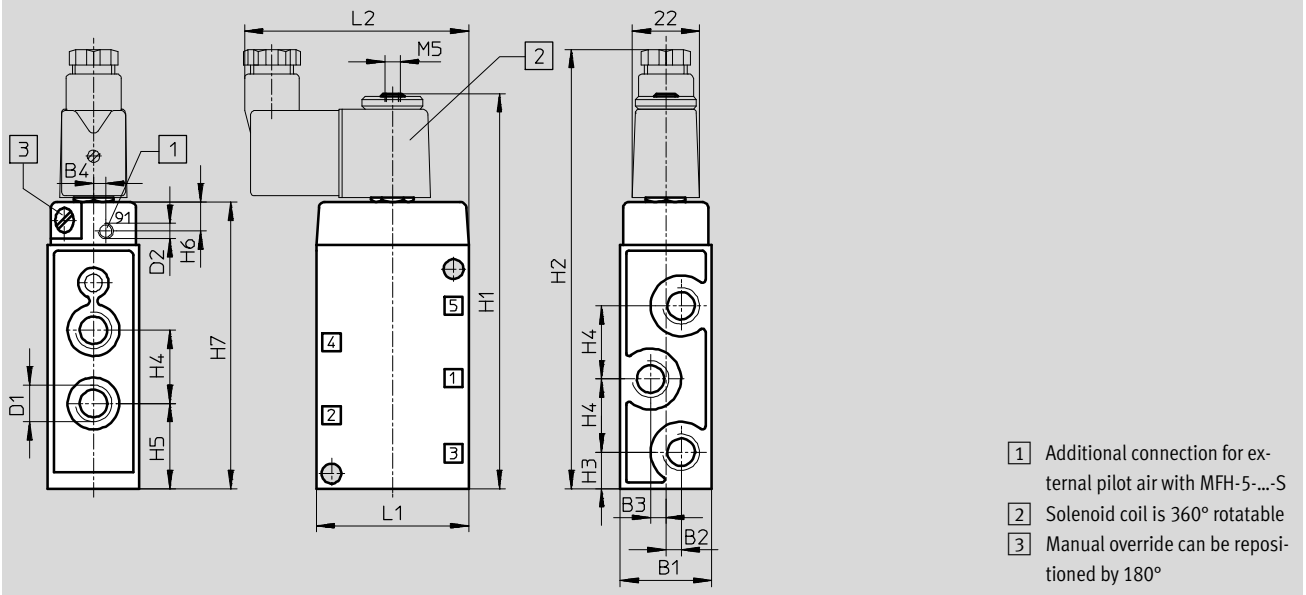
Technical data – 5/2-way valves



Dimensions

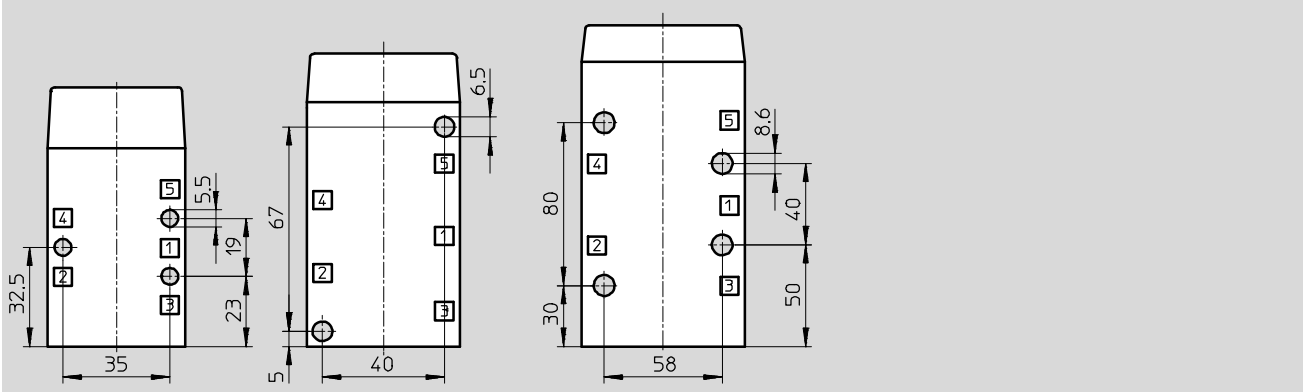
Download CAD data → www.festo.com

MFH



| Pneumatic connection | B1 | B2 | B3 | B4 | D1 | D2 | H1 | H2 | H3 | H4 | H5 | H6 | H7 | L1 | L2 |
|----------------------|------|-----|-----|-----|-----------------|-----------------|-----|-----|------|----|----|------|-----|----|----|
| G $\frac{1}{8}$ | 26 | 3.5 | 3.5 | 2.7 | G $\frac{1}{8}$ | M5 | 117 | 131 | 13.5 | 19 | 23 | 9.5 | 83 | 45 | 71 |
| G $\frac{1}{4}$ | 30.4 | - | 5 | 4 | G $\frac{1}{4}$ | M5 | 128 | 143 | 12 | 24 | 28 | 9.5 | 128 | 50 | 74 |
| G $\frac{1}{2}$ | 52 | - | 8 | - | G $\frac{1}{2}$ | G $\frac{1}{8}$ | 192 | 209 | 32 | 38 | 51 | 10.5 | 158 | 80 | 89 |

Attachment diagram



Solenoid valves MFH, Tiger Classic

Technical data – 5/2-way valves

| Ordering data | | | | |
|----------------|--|-------------------------------|--------------|--------------------|
| Circuit symbol | Description | Pneumatic connection | Part No. | Type |
| | Without F solenoid coil ¹⁾ , internal pilot air supply | G ¹ / ₈ | 9982 | MFH-5-1/8 |
| | | G ¹ / ₄ | 6211 | MFH-5-1/4 |
| | | G ¹ / ₂ | 6420 | MFH-5-1/2 |
| | Without F solenoid coil ¹⁾ , external pilot air supply | G ¹ / ₈ | 10348 | MFH-5-1/8-S |
| | | G ¹ / ₄ | 10349 | MFH-5-1/4-S |
| | | G ¹ / ₂ | 35547 | MFH-5-1/2-S |

1) F solenoid coils → 44



| Ordering data – Wearing parts kits | | |
|------------------------------------|---------------|---------------------------------|
| Pneumatic connection | Part No. | Type |
| G ¹ / ₈ | 104209 | MFH-5-1/8¹⁾²⁾ |
| G ¹ / ₄ | 104211 | MFH-5-1/4³⁾⁴⁾ |

- 1) Order mounting sleeves 228 389 separately
- 2) Use up to E602 series
- 3) Order mounting sleeves 229 363 separately
- 4) Use from 1/81 series

Double solenoid valves JMFH, Tiger Classic

FESTO

Technical data – 5/2-way double solenoid valves

-  - Flow rate
600 ... 4500 l/min
-  - Voltage
12, 24, 42, 48 V DC
24, 42, 48, 110, 230,
240 V AC

Wearing parts kits → 26



| General technical data | | | | | |
|----------------------------|---------------------------|--------------------------|-----------------|-----------------|------|
| Pneumatic connection | | G $\frac{1}{8}$ | G $\frac{1}{4}$ | G $\frac{1}{2}$ | |
| Valve function | | 5/2-way, double solenoid | | | |
| Constructional design | | Poppet valve | | | |
| Sealing principle | | Soft | | | |
| Actuation type | | Electrical | | | |
| Type of control | | Piloted | | | |
| Pilot air supply | | Internal or external | | | |
| Direction of flow | | Non reversible | | | |
| Exhaust function | | With flow control | | | |
| Manual override | | Detenting | | | |
| Type of mounting | | Via through holes | | | |
| Mounting position | | Any | | | |
| Nominal size | | [mm] | 5 | 7 | 14 |
| Standard nominal flow rate | Internal pilot air supply | [l/min] | 600 | 1100 | 4500 |
| | External pilot air supply | [l/min] | 600 | 1100 | 4000 |
| Product weight | | [g] | 425 | 530 | 1210 |

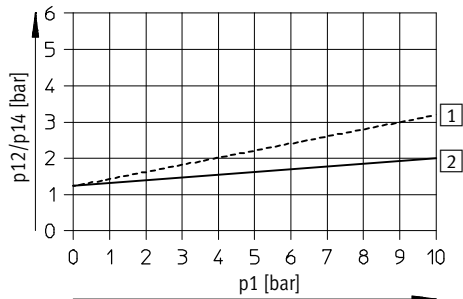
| Operating and environmental conditions | | | | | |
|--|---------------------------|--|-----------------|-----------------|-----------|
| Pneumatic connection | | G $\frac{1}{8}$ | G $\frac{1}{4}$ | G $\frac{1}{2}$ | |
| Operating medium | | Compressed air in accordance with ISO 8573-1:2010 [7:4:4] | | | |
| Note on operating/pilot medium | | Operation with lubricated medium possible (in which case lubricated operation will always be required) | | | |
| Operating pressure | Internal pilot air supply | [bar] | 1.5 ... 8 | 1.5 ... 8 | 2 ... 8 |
| | External pilot air supply | [bar] | 0 ... 8 | 0 ... 8 | 0 ... 8 |
| | With dominant signal | [bar] | 2.5 ... 8 | 2.5 ... 8 | – |
| Pilot pressure | | [bar] | 1.2 ... 8 | 1.2 ... 8 | 0.5 ... 8 |
| Ambient temperature | | [°C] | –5 ... +40 | | |
| Temperature of medium | | [°C] | –10 ... +60 | | |
| Note on materials | | RoHS-compliant | | | |

Double solenoid valves JMFH, Tiger Classic

Technical data – 5/2-way double solenoid valves

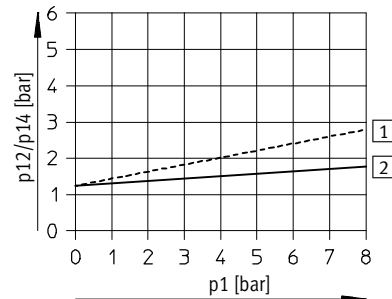
Minimal pilot pressure p_{12} , p_{14} as a function of operating pressure p_1 (external pilot air supply)

JMFH-5-1/8-S



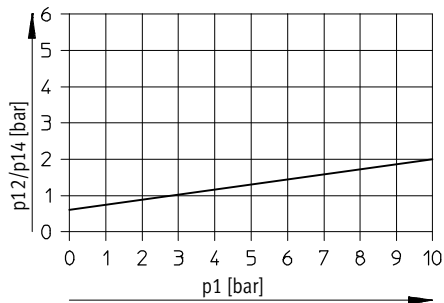
----- Exhaust throttled
 ———— Exhaust unthrottled

JMFH-5-1/4-S



----- Exhaust throttled
 ———— Exhaust unthrottled

JMFH-5-1/2-S



Valve response times [ms]

| Pneumatic connection | G ¹ / ₈ | Dominating signal at 14 | | G ¹ / ₄ | Dominating signal at 14 | | G ¹ / ₂ |
|---------------------------|-------------------------------|-------------------------|----|-------------------------------|-------------------------|---|-------------------------------|
| Internal pilot air supply | | | | | | | |
| On/changeover | – | 16 | – | 24 | – | – | – |
| Off/changeover | 18 | 24 | 11 | 32 | 20 | – | – |
| External pilot air supply | | | | | | | |
| On/changeover | – | – | – | – | – | – | – |
| Off/changeover | 18 | – | 11 | – | 20 | – | – |

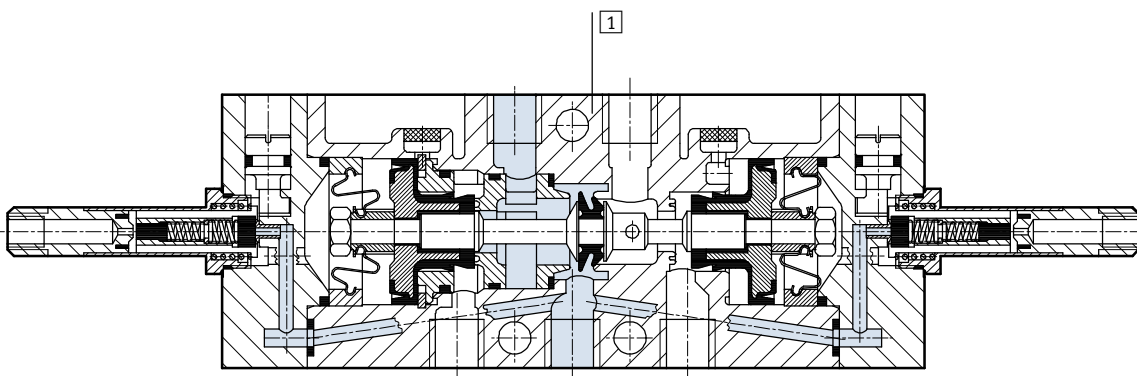
Double solenoid valves JMFH, Tiger Classic

Technical data – 5/2-way double solenoid valves

| Electrical data | | | |
|-------------------------------|---|--------|--|
| F solenoid coil | | | |
| Electrical connection | Plug vanes for plug sockets MSSD-F, KMF | | |
| Operating voltage | D.C. voltage | [V DC] | 12, 24, 42, 48 |
| | A.C. voltage | [V AC] | 24, 42, 48, 110, 230, 240 (50 ... 60 Hz) |
| Coil characteristics | D.C. voltage | [W] | 4.5 |
| | A.C. voltage | [VA] | Pull: 7.5 Hold: 6 |
| Protection class to EN 60 529 | IP65 (in combination with plug socket) | | |

Materials

Sectional view



| | | |
|---|---------|------------------------------|
| 1 | Housing | Aluminium die-cast, anodised |
| - | Seals | Nitrile rubber |

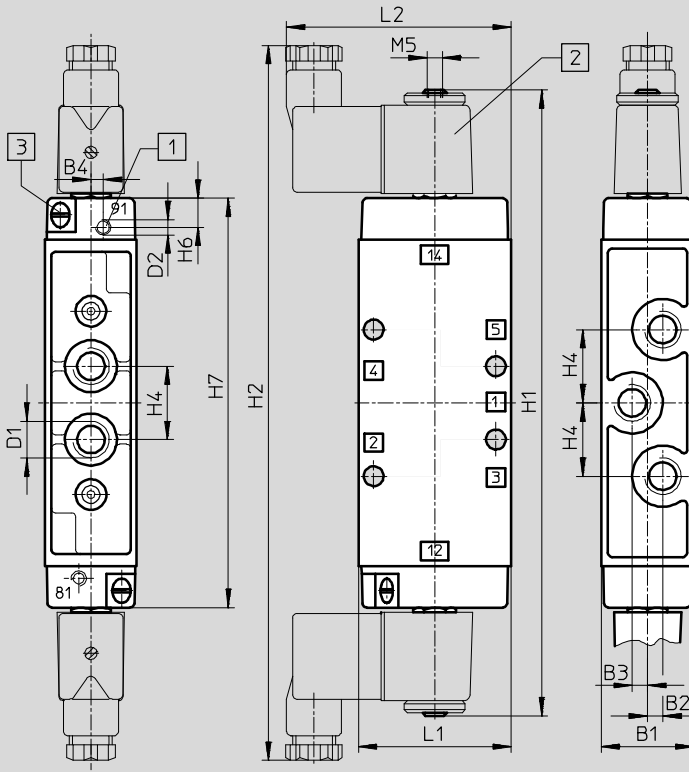
Double solenoid valves JMFH, Tiger Classic

Technical data – 5/2-way double solenoid valves

Dimensions

Download CAD data → www.festo.com

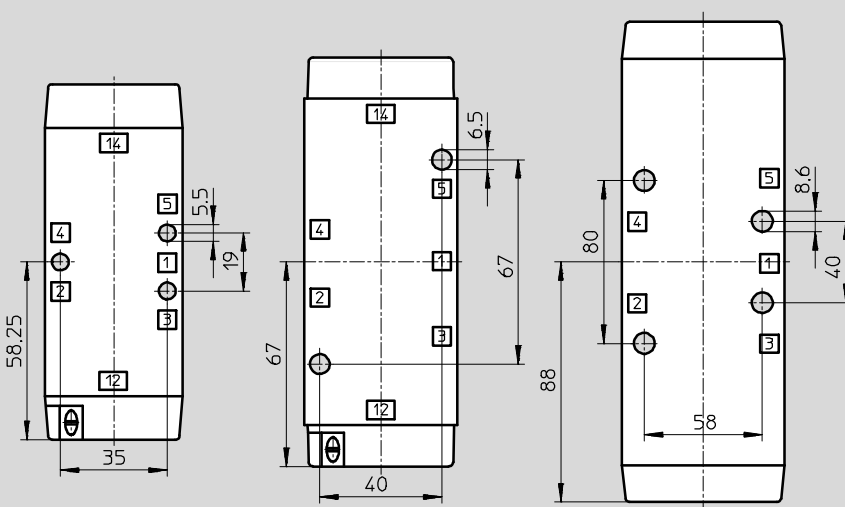
JMFH, JMFDH



- 1 Additional connection for external pilot air with JMF...H-5-...-S
- 2 Solenoid coil is 360° rotatable
- 3 Manual override can be repositioned by 180°

| Pneumatic connection | B1 | B2 | B3 | B4 | D1 | D2 | H1 | H2 | H4 | H6 | H7 | L1 | L2 |
|----------------------|------|-----|-----|-----|-----------------|-----------------|-----|-----|----|------|-------|----|----|
| G $\frac{1}{8}$ | 26 | 3.5 | 3.5 | 2.7 | G $\frac{1}{8}$ | M5 | 184 | 217 | 19 | 9.5 | 116.5 | 45 | 71 |
| G $\frac{1}{4}$ | 30.4 | – | 5 | 4 | G $\frac{1}{4}$ | M5 | 202 | 235 | 24 | 9.5 | 134 | 50 | 74 |
| G $\frac{1}{2}$ | 52 | – | 8 | – | G $\frac{1}{2}$ | G $\frac{1}{8}$ | 244 | 272 | 38 | 10.5 | 176 | 80 | 89 |

Attachment diagram



Double solenoid valves JMFH, Tiger Classic

Technical data – 5/2-way double solenoid valves

| Ordering data | | | | |
|----------------|---|-------------------------------|--------------|---------------------|
| Circuit symbol | Description | Pneumatic connection | Part No. | Type |
| | Without F solenoid coil ¹⁾ , internal pilot air supply | G ¹ / ₈ | 8820 | JMFH-5-1/8 |
| | | G ¹ / ₄ | 10410 | JMFH-5-1/4 |
| | | G ¹ / ₂ | 10166 | JMFH-5-1/2 |
| | Without F solenoid coil ¹⁾ , external pilot air supply | G ¹ / ₈ | 14008 | JMFH-5-1/8-S |
| | | G ¹ / ₄ | 14009 | JMFH-5-1/4-S |
| | | G ¹ / ₂ | 35548 | JMFH-5-1/2-S |
| | Without F solenoid coil ¹⁾ , internal pilot air supply, with dominating signal at 14 | G ¹ / ₈ | 8821 | JMFDH-5-1/8 |
| | | G ¹ / ₄ | 10411 | JMFDH-5-1/4 |
| | | | | |

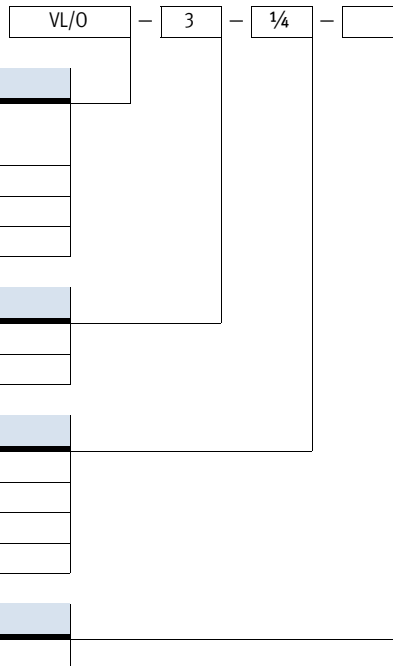
1) F solenoid coils → 44

| Ordering data – Wearing parts kits | | |
|------------------------------------|---------------|--------------------------------|
| Pneumatic connection | Part No. | Type |
| G ¹ / ₈ | 104891 | JMFH-5-1/8¹⁾ |
| G ¹ / ₄ | 104892 | JMFH-5-1/4²⁾ |

- 1) Order mounting sleeves 228 389 separately
- 2) Order mounting sleeves 229 363 separately

Pneumatic valves, Tiger Classic

Type codes

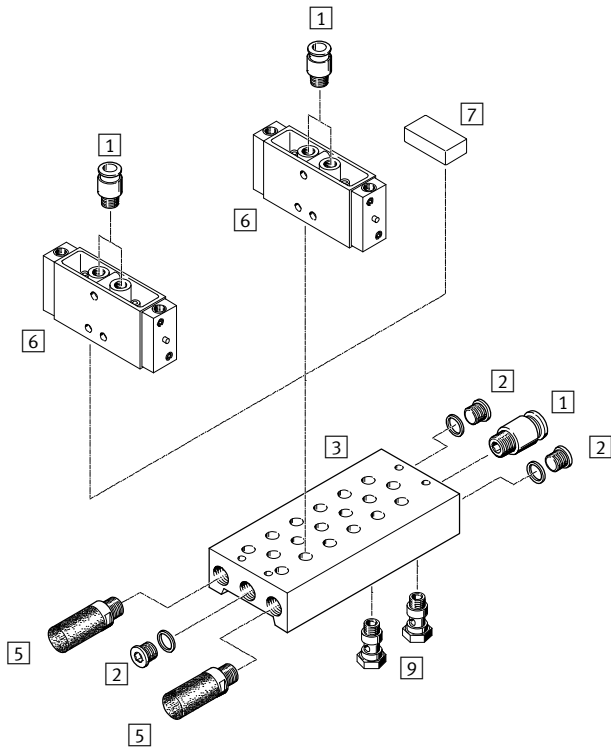


Pneumatic valves, Tiger Classic

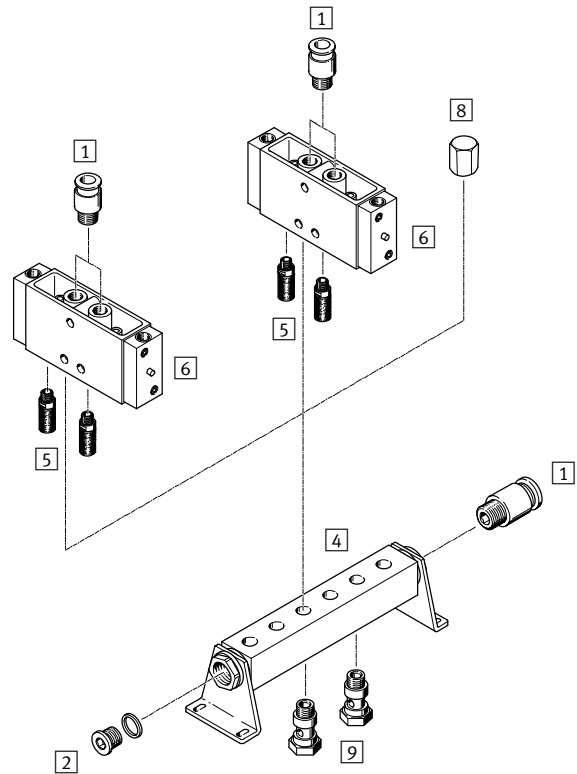
Peripherals overview

FESTO

Mounting on manifold block




Mounting on manifold strip



| Accessories | | Brief description | → Page/Internet |
|-------------|---------------------------|--|-----------------|
| 1 | Push-in fitting QS | For connecting standard O.D. tubing | quick star |
| 2 | Blanking plug B | 3 included in the scope of delivery for PRS manifold block 1 included in the scope of delivery for PAL manifold strip | blanking plug |
| 3 | Manifold block PRS | | 42 |
| 4 | Manifold strip PAL | | 40 |
| 5 | Silencer | For fitting in exhaust ports | u |
| 6 | Pneumatic valve VL, JH | | vl, jh |
| 7 | Blanking plate PRSB | For covering an unused valve position | 43 |
| 8 | Blanking cap VTM | For blanking an unused valve position | 41 |
| 9 | Hollow bolt VT | For distribution of compressed air or for separate compressed air supply | 41 |

Pneumatic valves VL/O, Tiger Classic

Technical data – 3/2-way valves

-  - Flow rate
500 ... 7500 l/min

Wearing parts kits → 32



| General technical data | | | | | |
|----------------------------|-----------------------|------|------|------|------|
| Pneumatic connection | G1/8 | G1/4 | G1/2 | G3/4 | |
| Valve function | 3/2-way, single pilot | | | | |
| Constructional design | Poppet valve | | | | |
| Sealing principle | Soft | | | | |
| Actuation type | Pneumatic | | | | |
| Type of reset | Mechanical spring | | | | |
| Type of pilot control | Direct | | | | |
| Direction of flow | Reversible | | | | |
| Exhaust function | With flow control | | | | |
| Manual override | None | | | | |
| Type of mounting | Via through holes | | | | |
| Mounting position | Any | | | | |
| Nominal size | [mm] | 5 | 7 | 14 | 19 |
| Standard nominal flow rate | [l/min] | 500 | 800 | 3700 | 7500 |
| Product weight | [g] | 150 | 230 | 860 | 1200 |

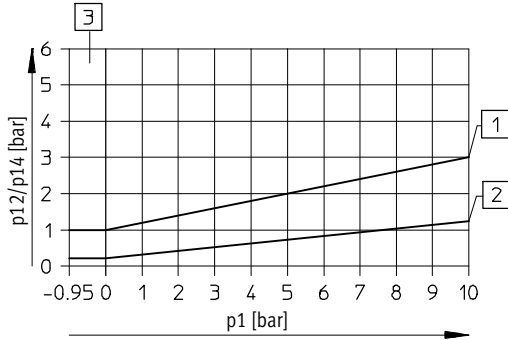
| Operating and environmental conditions | | | | | | |
|--|--|-------------|---------------|---------------|---------------|---------------|
| Pneumatic connection | G1/8 | G1/4 | G1/2 | G3/4 | | |
| Operating medium | Compressed air in accordance with ISO 8573-1:2010 [7:4:4] | | | | | |
| Note on operating/pilot medium | Operation with lubricated medium possible (in which case lubricated operation will always be required) | | | | | |
| Operating pressure | Normally closed | [bar] | -0.95 ... +10 | -0.95 ... +10 | -0.95 ... +10 | -0.95 ... +10 |
| | Normally open | [bar] | 0 ... 10 | 0 ... 10 | 0 ... 10 | 0 ... 10 |
| Pilot pressure | See diagram (max. 10 bar) | | | | | |
| Ambient temperature | [°C] | -10 ... +60 | | | | |
| Note on materials | RoHS-compliant | | | | | |

Pneumatic valves VL/O, Tiger Classic

Technical data – 3/2-way valves

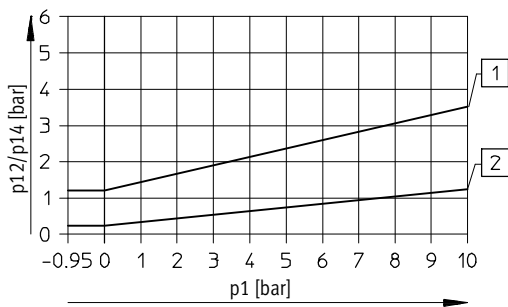
Minimal pilot pressure p_{12}/p_{14} as a function of operating pressure p_1

VL/O-3-1/8-B



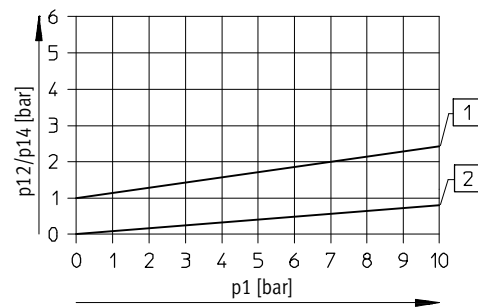
- 1 Switch-on pressure
- 2 Switch-off pressure
- 3 Only for normally closed

VL/O-3-1/4 – Normally closed



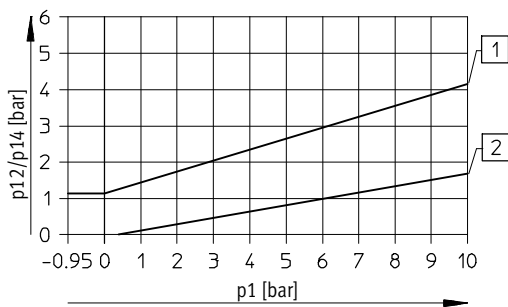
- 1 Switch-on pressure
- 2 Switch-off pressure

VL/O-3-1/4 – Normally open



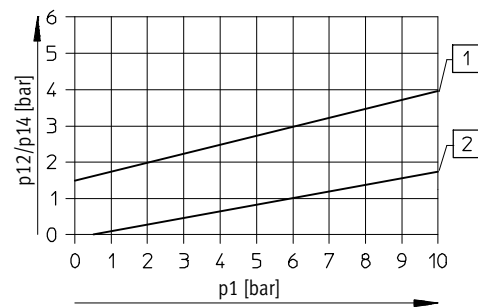
- 1 Switch-on pressure
- 2 Switch-off pressure

VL/O-3-1/2 – Normally closed



- 1 Switch-on pressure
- 2 Switch-off pressure

VL/O-3-1/2 – Normally open

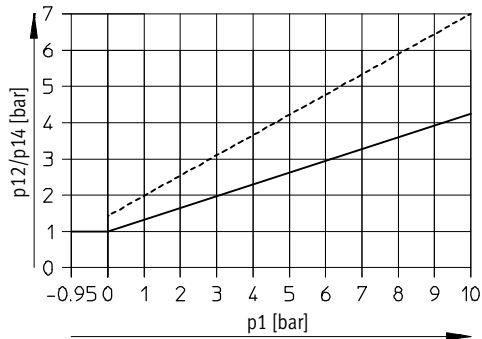


- 1 Switch-on pressure
- 2 Switch-off pressure

Pneumatic valves VL/O, Tiger Classic

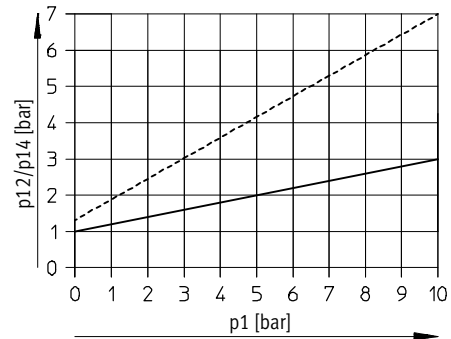
Technical data – 3/2-way valves

VL/O-3-3/4 – Normally closed



----- Exhaust throttled
 ————— Exhaust unthrottled

VL/O-3-3/4 – Normally open



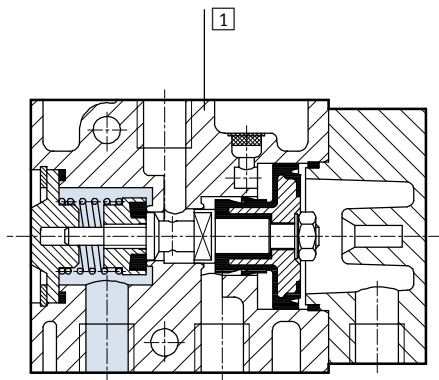
----- Exhaust throttled
 ————— Exhaust unthrottled

Valve response times [ms]

| Pneumatic connection | G1/8 | G1/4 | G1/2 | G3/4 |
|----------------------|------|------|------|------|
| On | 4 | 8 | 17 | 8 |
| Off | 10 | 30 | 30 | 23 |

Materials

Sectional view

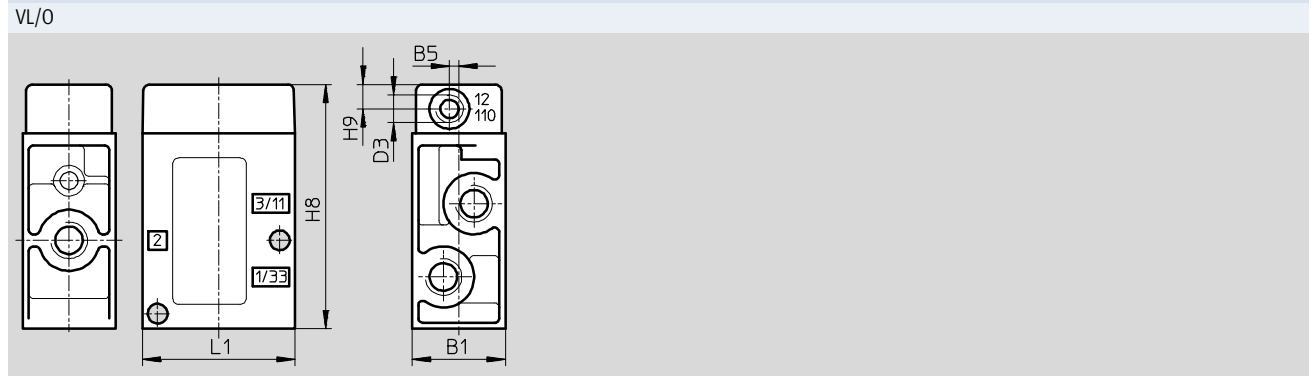


| | | |
|---|---------|------------------------------|
| 1 | Housing | Aluminium die-cast, anodised |
| - | Seals | Nitrile rubber |

Pneumatic valves VL/O, Tiger Classic

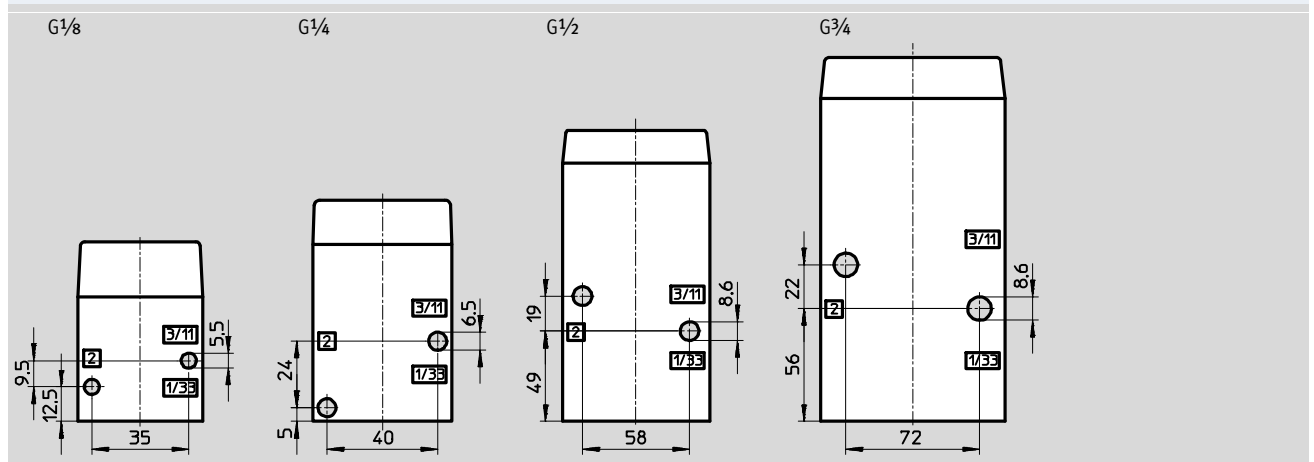
Technical data – 3/2-way valves

Dimensions Download CAD data → www.festo.com



| Pneumatic connection | B1 | B5 | D3 | H8 | H9 | L1 |
|-------------------------------|------|----|-------------------------------|-----|----|----|
| G ¹ / ₈ | 26 | 3 | G ¹ / ₈ | 65 | 8 | 45 |
| G ¹ / ₄ | 30.4 | – | G ¹ / ₈ | 80 | 8 | 50 |
| G ¹ / ₂ | 52 | – | G ¹ / ₄ | 118 | 10 | 80 |
| G ³ / ₄ | 68 | – | G ¹ / ₄ | 138 | 10 | 92 |

Attachment diagram



Ordering data


| Circuit symbol | Description | Pneumatic connection | Part No. | Type |
|----------------|--|-------------------------------|----------|--|
| | Mechanical reset, optionally normally open or closed | G ¹ / ₈ | 7803 | VL/O-3- ¹ / ₈ -B |
| | | G ¹ / ₄ | 9984 | VL/O-3- ¹ / ₄ |
| | | G ¹ / ₂ | 9983 | VL/O-3- ¹ / ₂ |
| | | G ³ / ₄ | 10049 | VL/O-3- ³ / ₄ |

Ordering data – Wearing parts kits

| Pneumatic connection | Part No. | Type |
|-------------------------------|----------|--|
| G ¹ / ₈ | 104222 | VL/O-3- ¹ / ₈ -B |
| G ¹ / ₄ | 104207 | VL/O-3- ¹ / ₄ |
| G ¹ / ₂ | 104208 | VL/O-3- ¹ / ₂ |

Pneumatic valves VL, Tiger Classic

Technical data – 5/2-way valves

-  - Flow rate
500 ... 3700 l/min

Wearing parts kits → 35



| General technical data | | | | |
|----------------------------|---------|-----------------------|------|------|
| Pneumatic connection | | G1/8 | G1/4 | G1/2 |
| Valve function | | 5/2-way, single pilot | | |
| Constructional design | | Poppet valve | | |
| Sealing principle | | Soft | | |
| Actuation type | | Pneumatic | | |
| Type of reset | | Mechanical spring | | |
| Type of pilot control | | Direct | | |
| Direction of flow | | Non reversible | | |
| Manual override | | None | | |
| Exhaust function | | With flow control | | |
| Type of mounting | | Via through holes | | |
| Mounting position | | Any | | |
| Nominal size | [mm] | 5 | 7 | 14 |
| Standard nominal flow rate | [l/min] | 500 | 800 | 3700 |
| Product weight | [g] | 180 | 220 | 1070 |

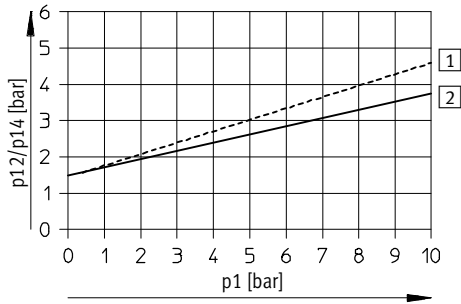
| Operating and environmental conditions | | | | |
|--|-------|--|---------|----------|
| Pneumatic connection | | G1/8 | G1/4 | G1/2 |
| Operating medium | | Compressed air in accordance with ISO 8573-1:2010 [7:4:4] | | |
| Note on operating/pilot medium | | Operation with lubricated medium possible (in which case lubricated operation will always be required) | | |
| Operating pressure | [bar] | 0 ... 10 | 0 ... 8 | 0 ... 10 |
| Pilot pressure | [bar] | See diagram (max. 10 bar) | | |
| Ambient temperature | [°C] | -10 ... +60 | | |
| Note on materials | | RoHS-compliant | | |

Pneumatic valves VL, Tiger Classic

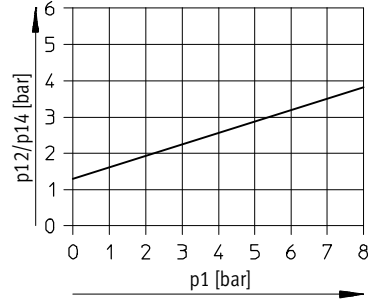
Technical data – 5/2-way valves

Minimal pilot pressure p_{12}/p_{14} as a function of operating pressure p_1

VL-5-1/8

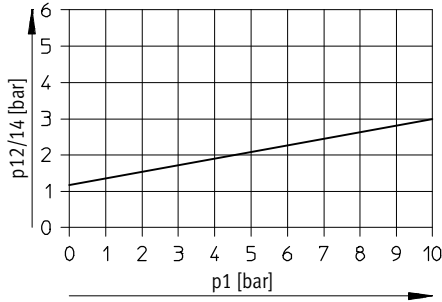


VL-5-1/4



----- Exhaust throttled
 ———— Exhaust unthrottled

VL-5-1/2

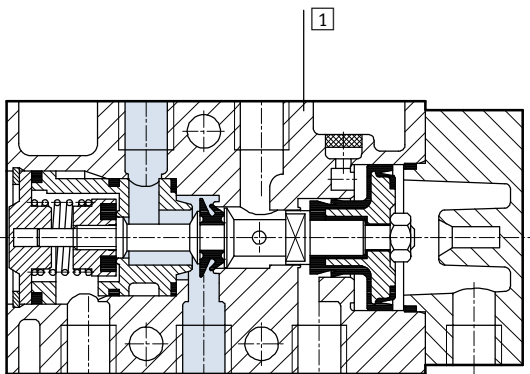


Valve response times [ms]

| Pneumatic connection | G1/8 | G1/4 | G1/2 |
|----------------------|------|------|------|
| On | 5 | 8 | 6 |
| Off | 16 | 12 | 27 |

Materials

Sectional view

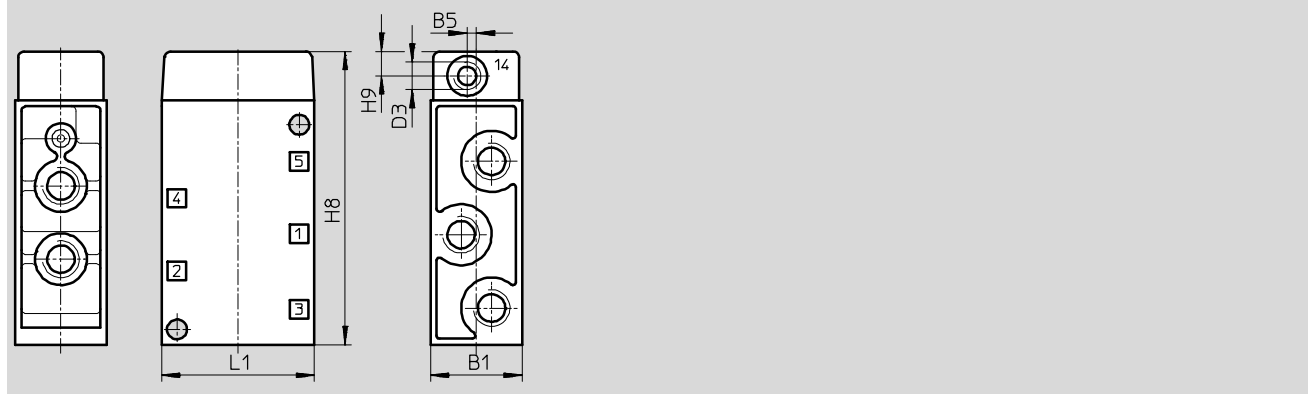


| | | |
|---|---------|------------------------------|
| 1 | Housing | Aluminium die-cast, anodised |
| - | Seals | Nitrile rubber |

Pneumatic valves VL, Tiger Classic

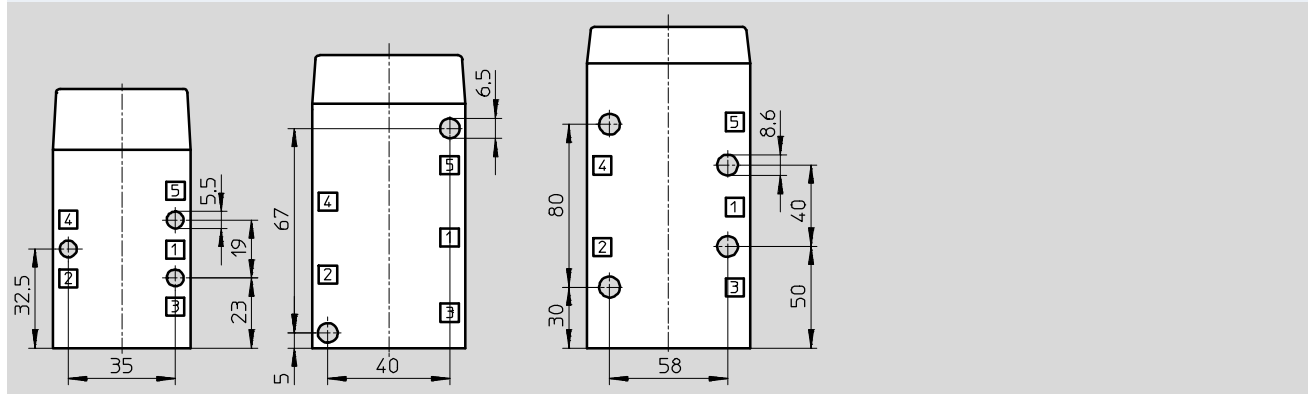
Technical data – 5/2-way valves

Dimensions Download CAD data → www.festo.com



| Pneumatic connection | B1 | B5 | D3 | H8 | H9 | L1 |
|-------------------------------|------|----|-------------------------------|-----|----|----|
| G ¹ / ₈ | 26 | 3 | G ¹ / ₈ | 85 | 8 | 45 |
| G ¹ / ₄ | 30.4 | - | G ¹ / ₈ | 96 | 8 | 50 |
| G ¹ / ₂ | 52 | - | G ¹ / ₄ | 159 | 10 | 80 |

Attachment diagram



| Ordering data | | | | |
|----------------|------------------|-------------------------------|----------|----------|
| Circuit symbol | Description | Pneumatic connection | Part No. | Type |
| | Mechanical reset | G ¹ / ₈ | 9764 | VL-5-1/8 |
| | | G ¹ / ₄ | 9199 | VL-5-1/4 |
| | | G ¹ / ₂ | 9445 | VL-5-1/2 |


| Ordering data – Wearing parts kits | | |
|------------------------------------|----------|--------------------------|
| Pneumatic connection | Part No. | Type |
| G ¹ / ₈ | 104209 | VL-5-1/8 ¹⁾ |
| G ¹ / ₄ | 104211 | VL-5-1/4 ²⁾³⁾ |
| G ¹ / ₂ | 104212 | VL-5-1/2 |

- 1) Order mounting sleeves 228 389 separately
- 2) Order mounting sleeves 229 363 separately
- 3) Use from 1/81 series

Pneumatic valves JH, Tiger Classic

FESTO

Technical data – 5/2-way valves, double pilot valves

-  - Flow rate
600 ... 4500 l/min

Wearing parts kits → 39



| General technical data | | | | |
|----------------------------|-----------------------|------|------|------|
| Pneumatic connection | G1/8 | G1/4 | G1/2 | |
| Valve function | 5/2-way, double pilot | | | |
| Constructional design | Poppet valve | | | |
| Sealing principle | Soft | | | |
| Actuation type | Pneumatic | | | |
| Type of pilot control | Direct | | | |
| Direction of flow | Non reversible | | | |
| Exhaust function | With flow control | | | |
| Manual override | Resetting | | | |
| Type of mounting | Via through holes | | | |
| Mounting position | Any | | | |
| Nominal size | [mm] | 5 | 7 | 14 |
| Standard nominal flow rate | [l/min] | 600 | 1100 | 4500 |
| Product weight | [g] | 245 | 330 | 1130 |

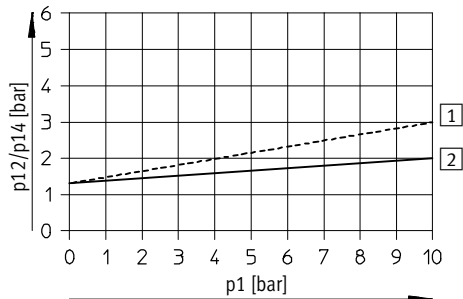
| Operating and environmental conditions | | | | |
|--|--|---------------------------|---------|----------|
| Pneumatic connection | G1/8 | G1/4 | G1/2 | |
| Operating medium | Compressed air in accordance with ISO 8573-1:2010 [7:4:4] | | | |
| Note on operating/pilot medium | Operation with lubricated medium possible (in which case lubricated operation will always be required) | | | |
| Operating pressure | [bar] | 0 ... 10 | 0 ... 8 | 0 ... 10 |
| Pilot pressure | [bar] | See diagram (max. 10 bar) | | |
| Ambient temperature | [°C] | -10 ... +60 | | |
| Note on materials | RoHS-compliant | | | |

Pneumatic valves JH, Tiger Classic

Technical data – 5/2-way valves, double pilot valves

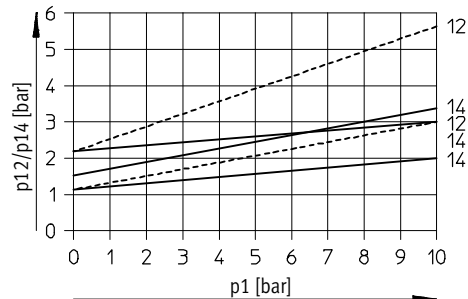
Minimal pilot pressure p_{12}/p_{14} as a function of operating pressure p_1

JH-5-1/8



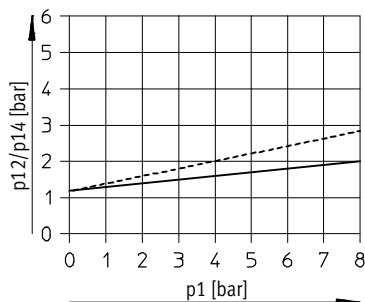
----- Exhaust throttled
 ————— Exhaust unthrottled

JDH-5-1/8



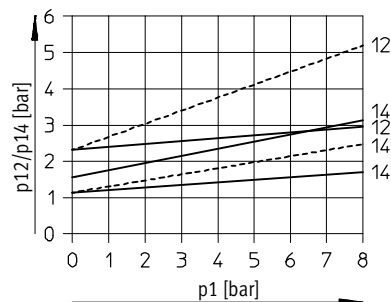
----- Exhaust throttled
 ————— Exhaust unthrottled

JH-5-1/4



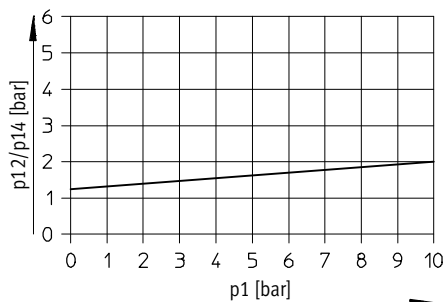
----- Exhaust throttled
 ————— Exhaust unthrottled

JDH-5-1/4



----- Exhaust throttled
 ————— Exhaust unthrottled

JH-5-1/2



Valve response times [ms]

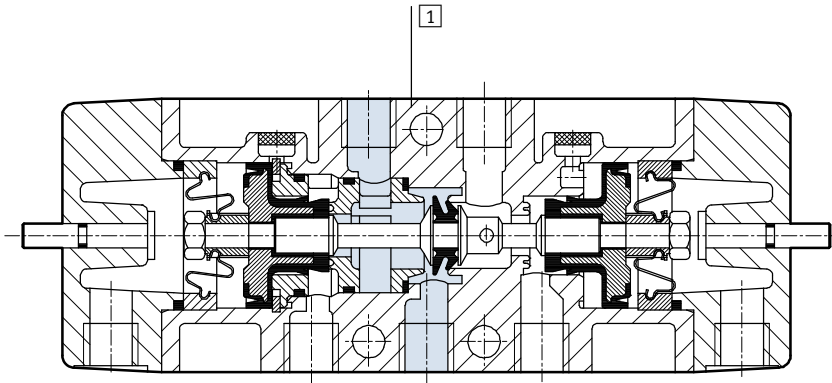
| Pneumatic connection | G1/8 | | G1/4 | | G1/2 |
|----------------------|------|-------------------------|------|-------------------------|------|
| | | Dominating signal at 14 | | Dominating signal at 14 | |
| On/changeover | – | 9 | – | 7 | – |
| Off/changeover | 2 | 16 | 7 | 16 | 3 |

Pneumatic valves JH, Tiger Classic

Technical data – 5/2-way valves, double pilot valves

Materials

Sectional view

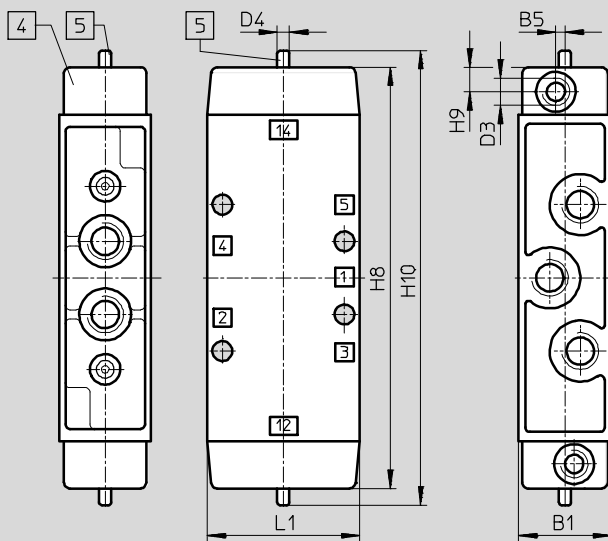


| | | |
|---|---------|------------------------------|
| 1 | Housing | Aluminium die-cast, anodised |
| - | Seals | Nitrile rubber |

Dimensions

Download CAD data → www.festo.com

JH, JDH



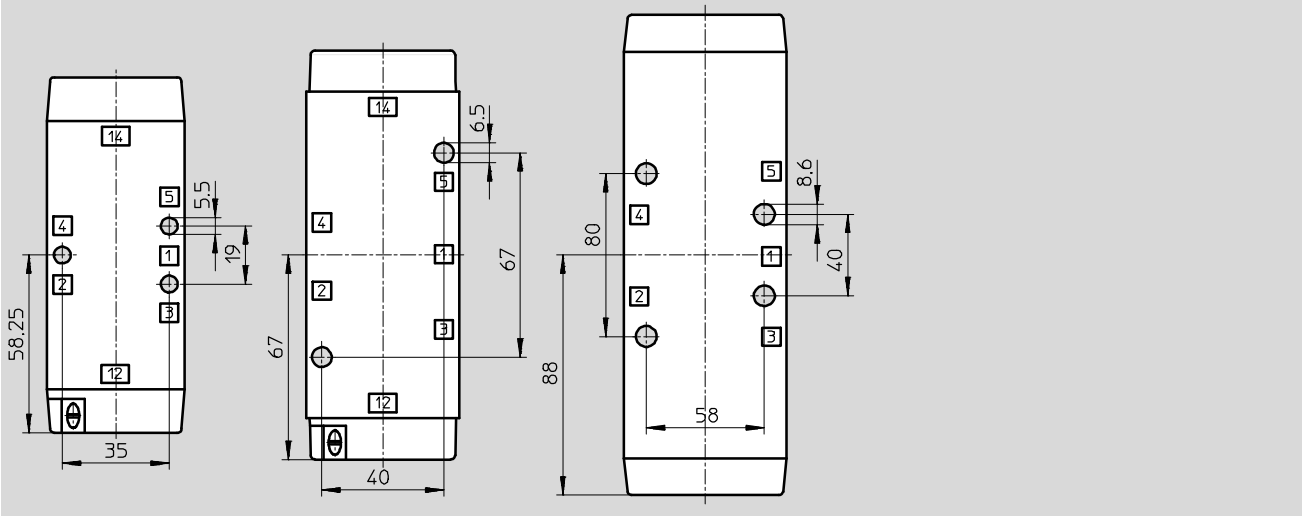
- 4 Cover can be repositioned by 180°
- 5 Manual override

| Pneumatic connection | B1 | B5 | D3 | D4 Ø | H8 | H9 | H10 | L1 |
|-------------------------------|------|----|-------------------------------|---------|-----|----|-----|----|
| G ¹ / ₈ | 26 | 3 | G ¹ / ₈ | 5 | 120 | 8 | 132 | 45 |
| G ¹ / ₄ | 30.4 | - | G ¹ / ₈ | 5 | 138 | 8 | 149 | 50 |
| G ¹ / ₂ | 52 | - | G ¹ / ₄ | 9.9 | 178 | 10 | 193 | 80 |

Pneumatic valves JH, Tiger Classic

Technical data – 5/2-way valves, double pilot valves

Attachment diagram



| Ordering data | | | | |
|----------------|------------------------------|----------------------|----------|-----------|
| Circuit symbol | Description | Pneumatic connection | Part No. | Type |
| | | G1/8 | 8823 | JH-5-1/8 |
| | | G1/4 | 10408 | JH-5-1/4 |
| | | G1/2 | 10165 | JH-5-1/2 |
| | With dominating signal at 14 | G1/8 | 8824 | JDH-5-1/8 |
| | | G1/4 | 10409 | JDH-5-1/4 |

| Ordering data – Wearing parts kits | | |
|------------------------------------|----------|------------------------|
| Pneumatic connection | Part No. | Type |
| G1/8 | 104891 | JH-5-1/8 ¹⁾ |
| G1/4 | 104892 | JH-5-1/4 ²⁾ |

- 1) Order mounting sleeves 228 389 separately
- 2) Order mounting sleeves 229 363 separately

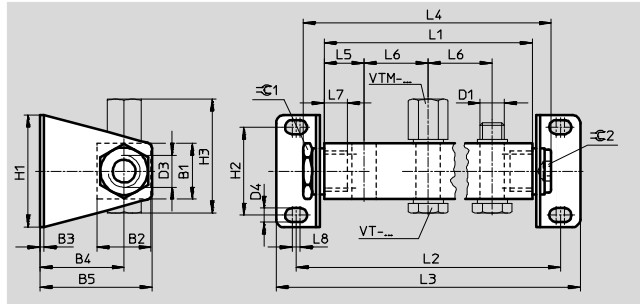
Solenoid/pneumatic valves, Tiger Classic



Accessories

Manifold strip PAL

Materials:
Manifold: anodised aluminium
Mounting bracket: galvanised steel



| Dimensions and ordering data | | | | | | | | | | | | | | | | | | |
|------------------------------|----|----|----|------|------|------|------|-----|----|----|----|----|----|----|----|----|----|--|
| Type | B1 | B2 | B3 | B4 | B5 | D1 | D3 | D4 | H1 | H2 | H3 | L5 | L6 | L7 | L8 | ∅1 | ∅2 | |
| PAL-1/8-... | 20 | 21 | 2 | 33.5 | 44.5 | G1/8 | G1/4 | 5.2 | 44 | 32 | 43 | 18 | 34 | 12 | 4 | 19 | 8 | |
| PAL-1/4-... | 28 | 27 | 2 | 42 | 56 | G1/4 | G3/8 | 7 | 56 | 44 | 56 | 20 | 32 | 14 | 4 | 24 | 10 | |
| PAL-1/2-... | 40 | 40 | 3 | 73 | 93 | G1/2 | G3/4 | 11 | 80 | 60 | 75 | 35 | 69 | 16 | 5 | 36 | 17 | |

| Number of valve ports | L1 | L2 | L3 | L4 | Weight [g] | Part No. | Type |
|---|-----|-----|-----|-----|------------|-------------|--------------------|
| Pneumatic connection G1/8 | | | | | | | |
| 2 | 70 | 96 | 114 | 89 | 145 | 8601 | PAL-1/8-2 |
| 3 | 104 | 130 | 148 | 123 | 170 | 8602 | PAL-1/8-3 |
| 4 | 138 | 164 | 182 | 157 | 190 | 8603 | PAL-1/8-4 |
| 5 | 172 | 198 | 216 | 191 | 215 | 8604 | PAL-1/8-5 |
| 6 | 206 | 232 | 250 | 225 | 240 | 9767 | PAL-1/8-6 |
| Pneumatic connection G1/4 ¹⁾ | | | | | | | |
| 2 | 72 | 100 | 120 | 94 | 330 | 9188 | PAL-5-1/4-2 |
| 3 | 104 | 132 | 152 | 126 | 405 | 9189 | PAL-5-1/4-3 |
| 4 | 136 | 164 | 184 | 158 | 480 | 9190 | PAL-5-1/4-4 |
| 5 | 168 | 196 | 216 | 190 | 555 | 9191 | PAL-5-1/4-5 |
| 6 | 200 | 228 | 248 | 222 | 630 | 9192 | PAL-5-1/4-6 |
| Pneumatic connection G1/2 | | | | | | | |
| 2 | 139 | 181 | 213 | 164 | 770 | 9492 | PAL-1/2-2 |
| 3 | 208 | 250 | 282 | 233 | 915 | 9493 | PAL-1/2-3 |
| 4 | 277 | 319 | 351 | 302 | 1 060 | 9494 | PAL-1/2-4 |
| 5 | 346 | 388 | 420 | 371 | 1 220 | 9495 | PAL-1/2-5 |
| 6 | 415 | 457 | 489 | 440 | 1 370 | 9496 | PAL-1/2-6 |

1) MOFH-3-1/4 is not suitable for manifold mounting

Solenoid/pneumatic valves, Tiger Classic

Accessories

Hollow bolt

VT

For manifold strip PAL

Material:

anodised aluminium



| Ordering data | | | |
|----------------------|------------|----------|--------------------------------------|
| Pneumatic connection | Weight [g] | Part No. | Type |
| G $\frac{1}{8}$ | 6 | 8626 | VT- $\frac{1}{8}$ |
| G $\frac{1}{8}$ | 15 | 5928 | VT- $\frac{1}{8}$ -1 ¹⁾²⁾ |
| G $\frac{1}{4}$ | 15 | 206147 | VT- $\frac{1}{4}$ -2 |
| G $\frac{1}{2}$ | 30 | 9986 | VT- $\frac{1}{2}$ |

1) For valves with G $\frac{1}{8}$ connection

2) Sealing rings included in scope of delivery

Blanking cap

VTM

For sealing vacant valve positions

Material:

wrought aluminium alloy



| Ordering data | | | |
|----------------------|------------|----------|----------------------------------|
| Pneumatic connection | Weight [g] | Part No. | Type |
| G $\frac{1}{8}$ | 5 | 9768 | VTM- $\frac{1}{8}$ |
| G $\frac{1}{4}$ | 5 | 9768 | VTM- $\frac{1}{8}$ ¹⁾ |
| G $\frac{1}{4}$ | 7 | 3099 | VTM- $\frac{1}{4}$ |
| G $\frac{1}{2}$ | 28 | 9987 | VTM- $\frac{1}{2}$ |

1) For valves with G $\frac{1}{8}$ connection

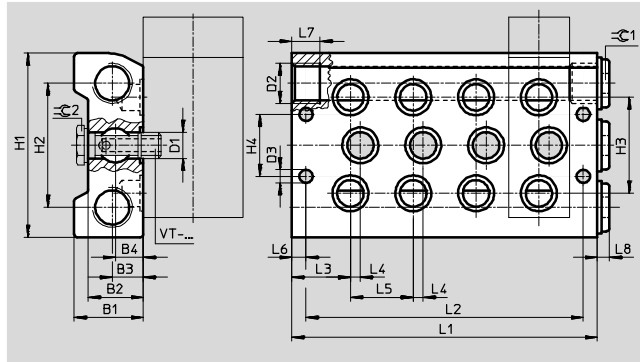
Solenoid/pneumatic valves, Tiger Classic



Accessories

Manifold block PRS

Material:
anodised aluminium



| Dimensions and ordering data | | | | | | | | | | | | | | | | | | | |
|------------------------------|------|------|------|------|------|------|-----|----|----|----|----|------|----|------|----|----|----|-------------|-------------|
| Type | B1 | B2 | B3 | B4 | D1 | D2 | D3 | H1 | H2 | H3 | H4 | L3 | L4 | L5 | L6 | L7 | L8 | $\ominus 1$ | $\ominus 2$ |
| PRS-1/8-... | 28.5 | 22 | 12.5 | 10.8 | G1/8 | G3/8 | 6.6 | 80 | 56 | 38 | 28 | 23.5 | 7 | 27 | 7 | 12 | 5 | 8 | 14 |
| PRS-1/4-... | 34.5 | 27.5 | 14 | 14 | G1/4 | G1/2 | 6.6 | 92 | 62 | 48 | 31 | 29.2 | 5 | 31.4 | 7 | 14 | 6 | 10 | 17 |

| Number of valve ports | L1 | L2 | Weight [g] | Part No. | Type |
|---------------------------|-------|-------|------------|----------|-----------|
| Pneumatic connection G1/8 | | | | | |
| 2 | 81 | 67 | 360 | 11898 | PRS-1/8-2 |
| 3 | 108 | 94 | 460 | 11899 | PRS-1/8-3 |
| 4 | 135 | 121 | 625 | 11900 | PRS-1/8-4 |
| 5 | 162 | 148 | 650 | 11901 | PRS-1/8-5 |
| 6 | 189 | 175 | 750 | 11902 | PRS-1/8-6 |
| Pneumatic connection G1/4 | | | | | |
| 2 | 89.8 | 75.8 | 590 | 10185 | PRS-1/4-2 |
| 3 | 121.2 | 107.2 | 750 | 10186 | PRS-1/4-3 |
| 4 | 152.6 | 138.6 | 900 | 10187 | PRS-1/4-4 |
| 5 | 184 | 170 | 1070 | 10188 | PRS-1/4-5 |
| 6 | 215.4 | 201.4 | 1 230 | 1089 | PRS-1/4-6 |

Hollow bolt

VT
For manifold block PRS

Material:
anodised aluminium



| Ordering data | | | |
|----------------------|------------|----------|-------------|
| Pneumatic connection | Weight [g] | Part No. | Type |
| G1/8 | 17 | 11539 | VT-1/8-PRSK |
| G1/4 | 32 | 9499 | VT-1/4-PRS |

Solenoid/pneumatic valves, Tiger Classic

Accessories

Blanking plate

PRSB

For sealing vacant valve positions

Material:
aluminium



| Ordering data | | | |
|----------------------|------------|----------|---------------------|
| Pneumatic connection | Weight [g] | Part No. | Type |
| G $\frac{1}{8}$ | 55 | 11687 | PRSB- $\frac{1}{8}$ |
| G $\frac{1}{4}$ | 80 | 11688 | PRSB- $\frac{1}{4}$ |

Hollow bolt

VT

For separate compressed air supply on valve

Material:
anodised aluminium



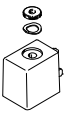
| Ordering data | | | |
|----------------------|------------|----------|--|
| Pneumatic connection | Weight [g] | Part No. | Type |
| G $\frac{1}{8}$ | 16 | 12634 | VT- $\frac{1}{8}$ -AJK-P |
| G $\frac{1}{4}$ | 24 | 12910 | VT- $\frac{1}{8}$ -AJS-P ¹⁾ |
| G $\frac{1}{4}$ | 45 | 12635 | VT- $\frac{1}{4}$ -AJ-P |



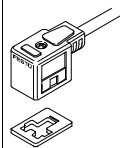
1) For valves with G $\frac{1}{8}$ connection


Solenoid/pneumatic valves, Tiger Classic

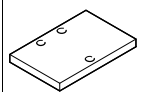
Accessories

FESTO

| Ordering data – Solenoid coils | | Technical data → Internet: msfg, msfw | |
|---|--|---------------------------------------|----------------------------|
| | Voltage | Part No. | Type |
| F solenoid coils | | | |
|  | 12 V DC | 34410 | MSFG-12-OD |
| | 24 V DC and 42 V AC, 50 ... 60 Hz | 34411 | MSFG-24/42-50/60-OD |
| | 42 V DC | 34413 | MSFG-42-OD |
| | 24 V AC | 34415 | MSFW-24-50/60-OD |
| | 48 V AC, 50 ... 60 Hz | 34418 | MSFW-48-50/60-OD |
| | 110 V AC, 50 ... 60 Hz and 120 V AC, 60 Hz | 34420 | MSFW-110-50/60-OD |
| | 230 V AC, 50 ... 60 Hz and 240 V AC, 60 Hz | 34422 | MSFW-230-50/60-OD |
| | 240 V AC, 50 ... 60 Hz | 34424 | MSFW-240-50/60-OD |

| Ordering data – Plug sockets/plug sockets with cable for F solenoid coils | | | | Technical data → Internet: mssd | |
|---|-------------|------------------|-----|---------------------------------|---------------------------|
| | Voltage | Cable length [m] | LED | Part No. | Type |
| Plug socket without cable | | | | | |
|  | – | – | – | 34431 | MSSD-F |
| | – | – | – | 539710 | MSSD-F-M16 |
| Plug socket without cable with insulation displacement technology | | | | | |
|  | – | – | – | 192746 | MSSD-F-S-M16 |
| Plug socket with cable | | | | | |
|  | 24 V DC | 2.5 | ■ | 30935 | KMF-1-24DC-2,5-LED |
| | | 5 | ■ | 30937 | KMF-1-24DC-5-LED |
| | | 10 | ■ | 193458 | KMF-1-24DC-10-LED |
| | Up to 240 V | 2.5 | – | 30936 | KMF-1-230AC-2,5 |
| | | 5 | – | 30938 | KMF-1-230AC-5 |

| Ordering data – Illuminating seal | | Technical data → Internet: mf-ld | |
|---|----------------|----------------------------------|----------------------|
| | Voltage | Part No. | Type |
| For F solenoid coils | | | |
|  | 12 ... 24 V DC | 19143 | MF-LD-12-24DC |
| | 230 V DC/V AC | 19144 | MF-LD-230AC |

| Ordering data – Plate | | | | Technical data → Internet: mf-ld | |
|---|---|----------------------|----------|----------------------------------|--------------------|
| | Description | Pneumatic connection | Part No. | Type | |
| For wide solenoid coils | | | | | |
|  | As spacer when using wider solenoid coils from other manufacturers (thickness: 6.35 mm) | For 3/2-way valves | G1/8 | 541667 | MPL-TC-3-18 |
| | | | G1/4 | 541669 | MPL-TC-3-14 |
| | | For 5/2-way valves | G1/8 | 541668 | MPL-TC-5-18 |
| | | | G1/4 | 541670 | MPL-TC-5-14 |

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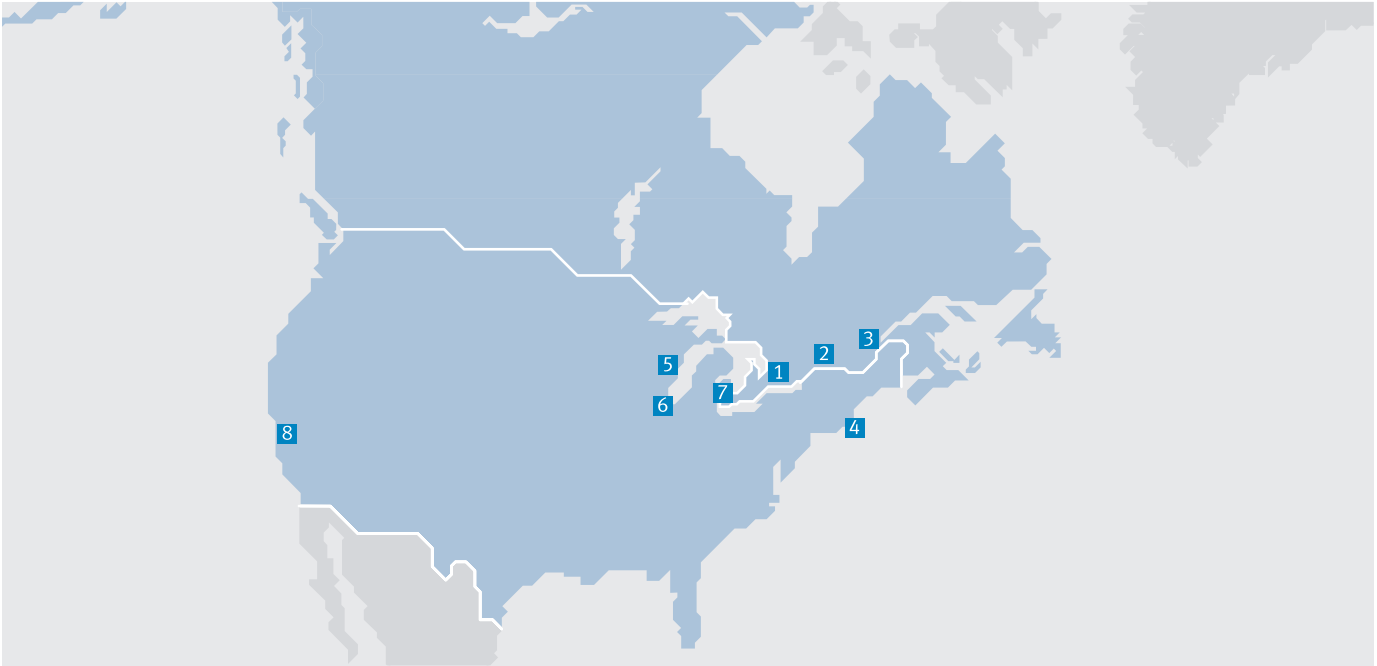


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