

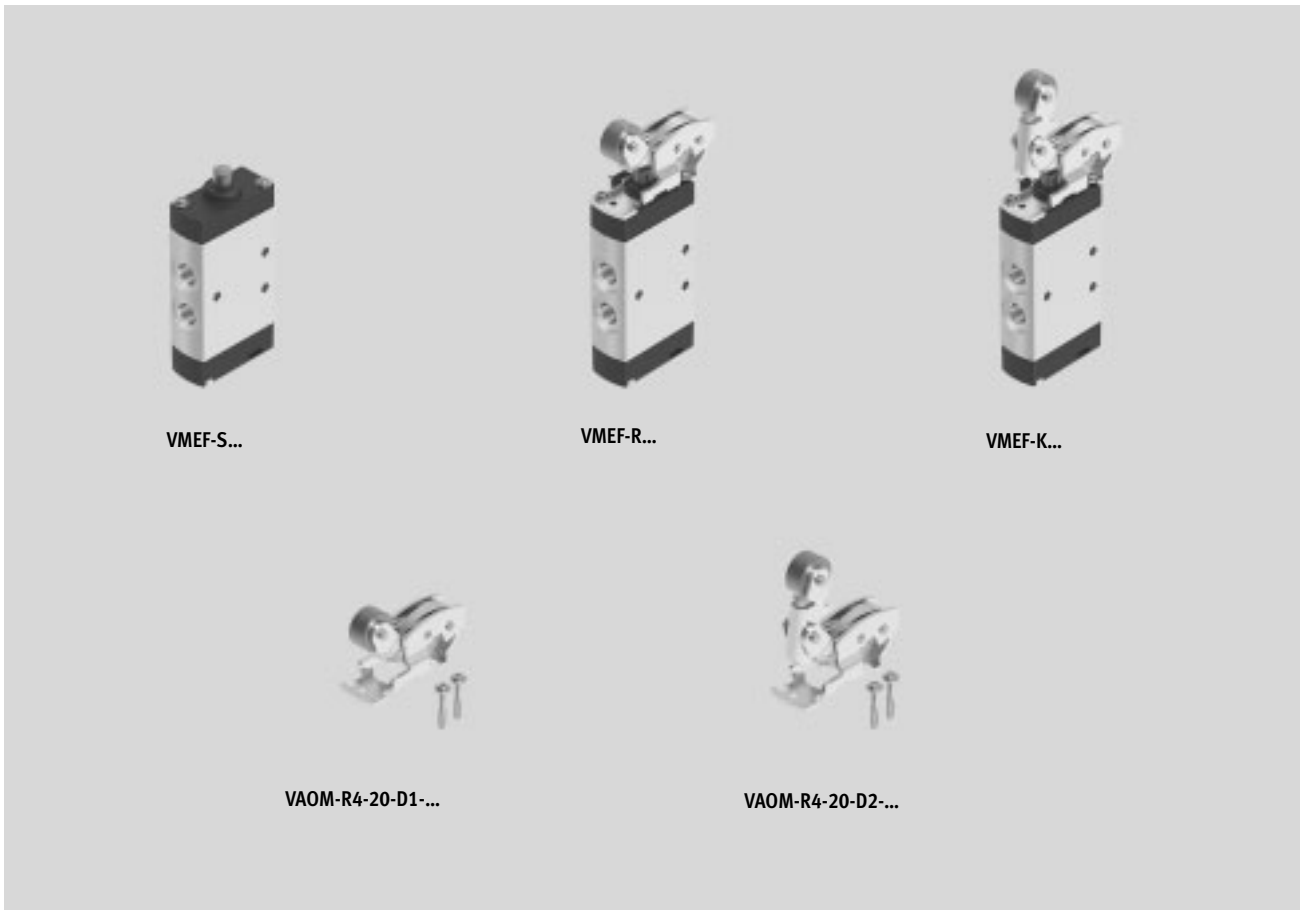
Mechanically actuated valves VMEF



Mechanically actuated valves VMEF

Key features

FESTO



Innovative

- Small and compact for a wide range of pneumatic applications
- Numerous selectable valve functions: 3/2-way and 5/2-way functions
- Flow rates up to 1200 l/min
- Outstanding pneumatic performance for a wide range of applications
- Light weight
- Minimal actuating forces

Versatile

- Flexibility of the pneumatic working ports provides a practical solution to different requirements
- Round silencer for ducted exhaust air
- Suitable for vacuum in some cases
- Reverse operation possible in some cases
- Actuation: direct and piloted
- Pressure range from vacuum to 10 bar possible
- Version:
 - Stem actuated valve
 - Roller lever valve
 - Toggle lever valve

Reliable

- Durable thanks to tried and tested piston spool and disc seat valves
- Sturdy thanks to metal housing and connecting thread or connector

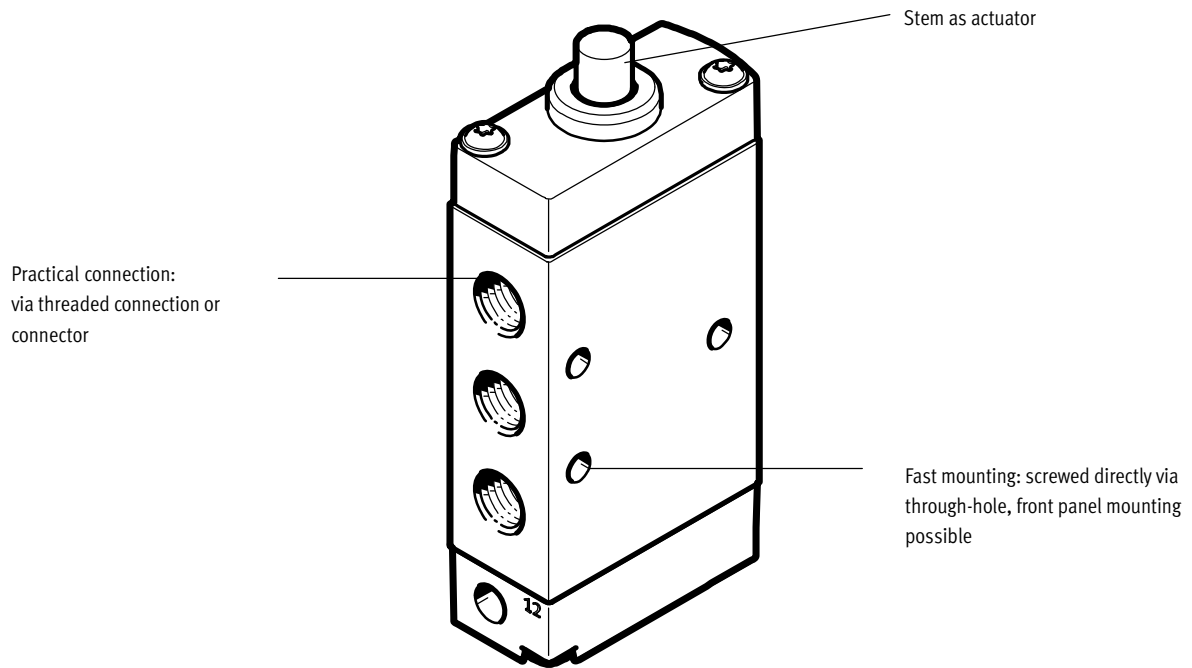
Easy to install

- To be mounted via through-holes (stem-actuated valves are also suitable for front panel mounting)
- Can be precisely adjusted using mounting kit

Mechanically actuated valves VMEF

Key features

FESTO



Equipment options

3/2-way valve, monostable

- Normally open/closed
- Mechanical spring
- Vacuum operation possible

- Directly controlled and pneumatically piloted
- Reversible
- Ducted exhaust air

5/2-way valve, monostable

- Pneumatic spring/mechanical spring
- Vacuum operation possible

- Reversible in some cases
- Pneumatically piloted
- Ducted exhaust air

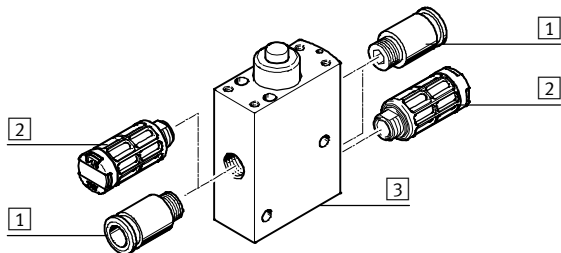
Mechanically actuated valves VMEF

Peripherals overview

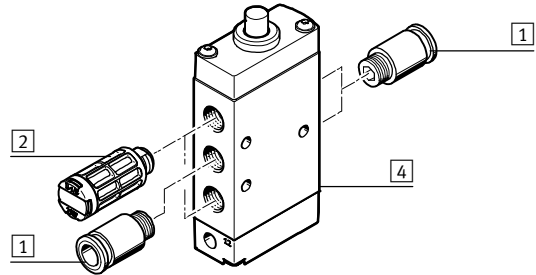
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Valves, mechanically actuated

Stem actuated valve, 3/2-way valve

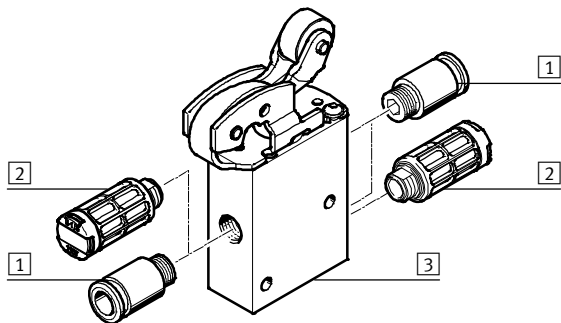


Stem actuated valve, 5/2-way valve

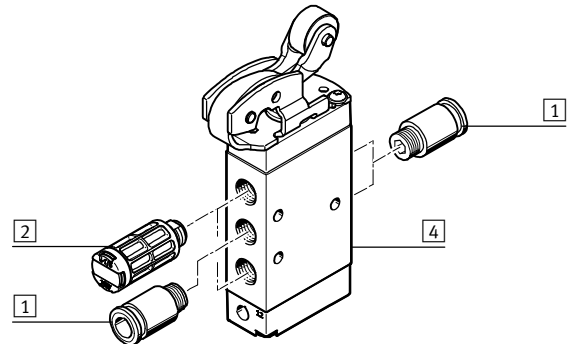


| | Brief description | → Page/Internet |
|---|--|-----------------|
| 1 | Fitting For supply air/exhaust ports (1, 3, 5) and working ports (2, 4) | 32 |
| 2 | Silencers For exhaust ports (3, 5) | 32 |
| 3 | 3/2-way valve Stem actuated valve | 9 |
| 4 | 5/2-way valve Stem actuated valve | 9 |

Roller lever valve, 3/2-way valve



Roller lever valve, 5/2-way valve



| | Brief description | → Page/Internet |
|---|--|-----------------|
| 1 | Fitting For supply air/exhaust ports (1, 3, 5) and working ports (2, 4) | 32 |
| 2 | Silencers For exhaust ports (3, 5) | 32 |
| 3 | 3/2-way valve Stem actuated valve with roller lever attachment | 23 |
| 4 | 5/2-way valve Stem actuated valve with roller lever attachment | 23 |

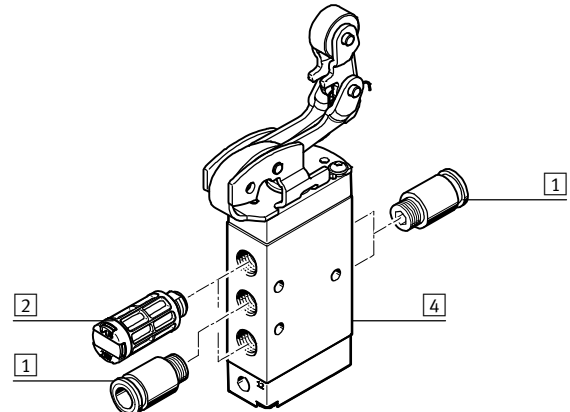
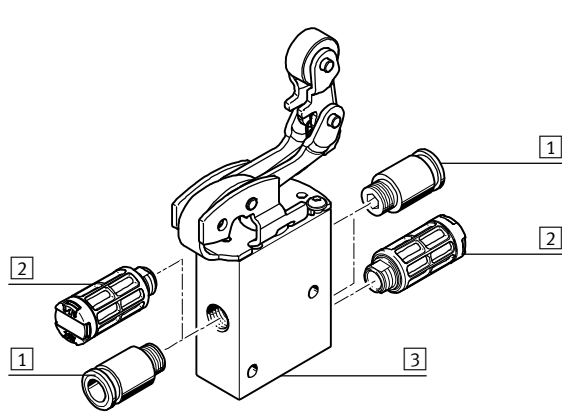
Mechanically actuated valves VMEF

Peripherals overview

Valves, mechanically actuated

Toggle lever valve, 3/2-way valve

Toggle lever valve, 5/2-way valve



| | Brief description | → Page/Internet | |
|---|-------------------|---|----|
| 1 | Fitting | For supply air/exhaust ports (1, 3, 5) and working ports (2, 4) | 32 |
| 2 | Silencers | For exhaust ports (3, 5) | 32 |
| 3 | 3/2-way valve | Stem actuated valve with toggle lever attachment | 23 |
| 4 | 5/2-way valve | Stem actuated valve with toggle lever attachment | 23 |

Mechanically actuated valves VMEF

Key features – Pneumatics

Mechanically actuated valves

Mechanically actuated valves are often used as “signal valves”, and return a pneumatic signal to the controller. This signal, e.g. “end position reached”, is transmitted via

a stem or roller actuated valve. This application sounds simple; it is used in smaller machines and in conveyor systems e.g. to control simple clamping and locking

processes in semi-automatic assembly and manufacturing.

Benefits of mechanically actuated valves:

- No expensive programming
- Easy to set and connect
- Can be controlled and measured using sensors
- No electronic controller required

| Valve functions | | |
|---------------------|--------------------|--|
| Circuit symbol | Type | Description |
| Stem actuated valve | | |
| | VMEF-ST-M32-M... | 3/2-way valve, monostable <ul style="list-style-type: none"> • Normally closed (1 → 2) • Normally open (3 → 2) • Reset via mechanical spring • Suitable for vacuum • Reversible |
| | VMEF-STC-M32-M... | 3/2-way valve, monostable <ul style="list-style-type: none"> • Normally closed (1 → 2) • Normally open (3 → 2) • Reset via mechanical spring • Pneumatically piloted, internal pilot air • Reversible |
| | VMEF-STCZ-M32-M... | 3/2-way valve, monostable <ul style="list-style-type: none"> • Normally closed (1 → 2) • Normally open (3 → 2) • Reset via mechanical spring • Pneumatically piloted, external pilot air • Reversible |
| | VMEF-S-M52-E... | 5/2-way valve, monostable <ul style="list-style-type: none"> • Reset via (external) pneumatic spring • Suitable for vacuum • Reversible |
| | VMEF-S-M52-M... | 5/2-way valve, monostable <ul style="list-style-type: none"> • Reset via mechanical spring • Suitable for vacuum • Reversible |
| | VMEF-SCZ-M52-E... | 5/2-way valve, monostable <ul style="list-style-type: none"> • Pneumatically piloted, external pilot air • Reset via pneumatic spring • Suitable for vacuum • Reversible |
| | VMEF-SCZ-M52-M... | 5/2-way valve, monostable <ul style="list-style-type: none"> • Pneumatically piloted, external pilot air • Reset via mechanical spring • Suitable for vacuum • Reversible |
| | VMEF-SC-M52-M... | 5/2-way valve, monostable <ul style="list-style-type: none"> • Pneumatically piloted, internal pilot air • Reset via mechanical spring • Suitable for vacuum |

Mechanically actuated valves VMEF

Key features – Pneumatics

| Valve functions | | |
|---|-------------------|---|
| Circuit symbol | Type | Description |
| Roller lever valve | | |
| <p>The circuit symbol shows a 3/2-way valve with a roller lever actuator. Port 12 is the inlet, port 2 is the outlet, and port 3 is the return. A spring symbol is shown on the return line. The valve is normally closed (1 to 2) and normally open (3 to 2).</p> | VMEF-RT-M32-M-... | 3/2-way valve, monostable <ul style="list-style-type: none"> • Normally closed (1 → 2) • Normally open (3 → 2) • Reset via mechanical spring • Directly actuated • Suitable for vacuum • Reversible |
| <p>The circuit symbol shows a 5/2-way valve with a roller lever actuator. Port 14 is the inlet, port 4 is the outlet, port 2 is the return, and port 3 is the vacuum port. A spring symbol is shown on the return line. The valve is normally closed (14 to 4) and normally open (5 to 2).</p> | VMEF-R-M52-M-... | 5/2-way valve, monostable <ul style="list-style-type: none"> • Reset via mechanical spring • Directly actuated • Suitable for vacuum • Reversible |
| <p>The circuit symbol shows a 5/2-way valve with a roller lever actuator and an external pneumatic spring. Port 14 is the inlet, port 4 is the outlet, port 2 is the return, and port 3 is the vacuum port. A spring symbol is shown on the return line. The valve is normally closed (14 to 4) and normally open (5 to 2).</p> | VMEF-R-M52-E-... | 5/2-way valve, monostable <ul style="list-style-type: none"> • Reset via (external) pneumatic spring • Directly actuated • Suitable for vacuum • Reversible |
| Toggle lever valve | | |
| <p>The circuit symbol shows a 3/2-way valve with a toggle lever actuator. Port 12 is the inlet, port 2 is the outlet, and port 3 is the return. A spring symbol is shown on the return line. The valve is normally closed (12 to 2) and normally open (3 to 2).</p> | VMEF-KT-M32-M-... | 3/2-way valve, monostable <ul style="list-style-type: none"> • Normally closed (1 → 2) • Normally open (3 → 2) • Reset via mechanical spring • Directly actuated • Suitable for vacuum • Reversible |
| <p>The circuit symbol shows a 5/2-way valve with a toggle lever actuator. Port 14 is the inlet, port 4 is the outlet, port 2 is the return, and port 3 is the vacuum port. A spring symbol is shown on the return line. The valve is normally closed (14 to 4) and normally open (5 to 2).</p> | VMEF-K-M52-M-... | 5/2-way valve, monostable <ul style="list-style-type: none"> • Reset via mechanical spring • Directly actuated • Suitable for vacuum • Reversible |

Note

A filter must be installed upstream of valves operated in vacuum mode. This prevents any foreign matter in the intake air getting into the valve (e.g. when operating a suction cup).




Mechanically actuated valves VMEF

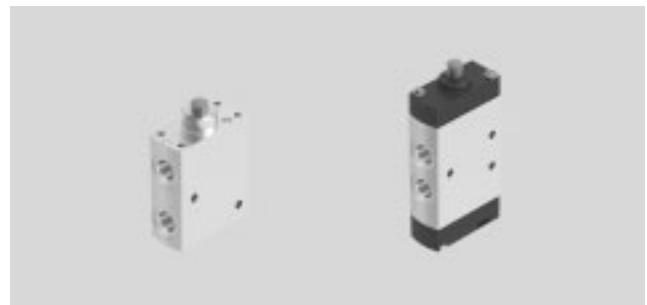
Type codes

| | | | | | | | | | | |
|-----------------------------|------------------------------|------|---|--|---|--|---|--|---|--|
| | | VMEF | - | | - | | - | | - | |
| Valve series | | | | | | | | | | |
| VMEF | Mechanically actuated valves | | | | | | | | | |
| Design | | | | | | | | | | |
| Actuation | | | | | | | | | | |
| K | Toggle lever valve | | | | | | | | | |
| R | Roller lever valve | | | | | | | | | |
| S | Stem actuated valve | | | | | | | | | |
| Design | | | | | | | | | | |
| - | Piston spool | | | | | | | | | |
| T | Disc seat | | | | | | | | | |
| Actuation | | | | | | | | | | |
| - | Directly actuated | | | | | | | | | |
| C | Pneumatically piloted | | | | | | | | | |
| Pilot air supply | | | | | | | | | | |
| - | Internal | | | | | | | | | |
| Z | External | | | | | | | | | |
| Valve function | | | | | | | | | | |
| M32 | 3/2-way valve, monostable | | | | | | | | | |
| M52 | 5/2-way valve, monostable | | | | | | | | | |
| Type of reset | | | | | | | | | | |
| E | Pneumatic spring, external | | | | | | | | | |
| M | Mechanical spring | | | | | | | | | |
| Pneumatic connection | | | | | | | | | | |
| G14 | Threaded connection G1/4 | | | | | | | | | |
| N14 | Threaded connection 1/4 NPT | | | | | | | | | |
| G18 | Threaded connection G1/8 | | | | | | | | | |
| N18 | Threaded connection 1/8 NPT | | | | | | | | | |

Mechanically actuated valves VMEF

Technical data – Stem actuated valve

-  Flow rate
750 ... 1200 l/min
-  Pressure
-0.95 ... +10 bar
-  Temperature range
-10 ... +60 °C



| General technical data | |
|-------------------------------|-------------------------------|
| Design | Stem actuated valve |
| Width [mm] | 20 |
| Type of control | Directly actuated or piloted |
| Max. actuating speed | |
| • Directly actuated [m/s] | 0.6 |
| • Piloted [m/s] | 0.3 |
| Notes regarding use | Do not use as mechanical stop |
| Type of actuation | Mechanical |
| Mounting | Via through-hole |
| Sealing principle | Soft |
| Flow direction | Reversible |
| Mounting position | Any |
| Max. switching frequency [Hz] | 3 |

| Technical data – Disc seat valve | | | | | |
|----------------------------------|---------------|-----------------------------------|--------------------------|--------------------|--------------------------|
| Type | | VMEF-ST-M32 ... 18 | VMEF-STC ... -M32 ... 18 | VMEF-ST-M32 ... 14 | VMEF-STC ... -M32 ... 14 |
| Version | | Disc seat valve | | | |
| Standard nominal flow rate | 1 → 2 [l/min] | 750 | 750 | 870 | 870 |
| | 3 → 2 [l/min] | 665 | 665 | 750 | 750 |
| Valve function | | 3/2-way valve, closed, monostable | | | |
| Lap | | Zero lap | | | |
| Type of control | | Directly actuated | Piloted | Directly actuated | Piloted |
| Reset method | | Mechanical spring | | | |
| Pneumatic connection 1, 2, 3 | G | 1/8 | 1/8 | 1/4 | 1/4 |
| | NPT | 1/8 | 1/8 | 1/4 | 1/4 |
| Pilot air port 12/14 | | – | M5 | – | M5 |
| Pilot air supply | | – | Internal or external | – | Internal or external |
| Nominal width [mm] | | 5.6 | 5.6 | 6.0 | 6.0 |
| Actuating force at 6 bar | | | | | |
| • Normally closed [N] | | 46 | 14 | 46 | 14 |
| • Normally open [N] | | 82 | 14 | 82 | 14 |

Mechanically actuated valves VMEF

FESTO

Technical data – Stem actuated valve

| Technical data – Piston spool valve | | | | |
|--|---------------------------|---------------------|---------------------|---------------------|
| Type code | VMEF-S-M52-E ... 18 | VMEF-S-M52-M ... 18 | VMEF-S-M52-E ... 14 | VMEF-S-M52-M ... 14 |
| Version | Piston spool valve | | | |
| Standard nominal flow rate $1 \rightarrow 2$ [l/min] | 750 | 750 | 1200 | 1200 |
| Valve function | 5/2-way valve, monostable | | | |
| Lap | Overlap | | | |
| Type of control | Directly actuated | | | |
| Reset method | Pneumatic spring | Mechanical spring | Pneumatic spring | Mechanical spring |
| Pneumatic port 1, 2, 3, 4, 5 | G | 1/8 | 1/8 | 1/4 |
| | NPT | 1/8 | 1/8 | 1/4 |
| Pilot air port 12/14 | M5 | – | M5 | – |
| Nominal width [mm] | 5.2 | 5.2 | 7.0 | 7.0 |
| Actuating force at 6 bar [N] | 28 | 34 | 48 | 43 |

| Technical data – Piston spool valve | | | | |
|--|---------------------------|-----------------------|-----------------------|-----------------------|
| Type code | VMEF-SCZ-M52-E ... 18 | VMEF-S...M52-M ... 18 | VMEF-SCZ-M52-E ... 14 | VMEF-S...M52-M ... 14 |
| Version | Piston spool valve | | | |
| Standard nominal flow rate $1 \rightarrow 2$ [l/min] | 750 | 750 | 1200 | 1200 |
| Valve function | 5/2-way valve, monostable | | | |
| Lap | Overlap | | | |
| Type of control | Piloted | | | |
| Reset method | Pneumatic spring | Mechanical spring | Pneumatic spring | Mechanical spring |
| Pneumatic port 1, 2, 3, 4, 5 | G | 1/8 | 1/8 | 1/4 |
| | NPT | 1/8 | 1/8 | 1/4 |
| Pilot air port 12/14 | M5 | M5 | M5 | M5 |
| Pilot air supply | External | Internal or external | External | Internal or external |
| Nominal width [mm] | 5.2 | 5.2 | 7.0 | 7.0 |
| Actuating force at 6 bar [N] | 14 | 14 | 14 | 14 |

Mechanically actuated valves VMEF

Technical data – Stem actuated valve

| Materials | |
|-------------------|--|
| Housing | Anodised wrought aluminium alloy |
| Cover | PA reinforced (VMEF-STC...-M32-, VMEF...-M52-) |
| Seal | NBR |
| Note on materials | RoHS-compliant |

| Operating and environmental conditions | | | | | | |
|--|--|------------------------|------------------------|------------------------|--------------------------------------|------------------|
| Type code | VMEF-ST-M32- ... VMEF-STCZ-M32- ... | | VMEF-STC-M32- ... | | VMEF-S-M52- ... VMEF-SCZ-M52- ... | VMEF-SC-M52- ... |
| Operating medium | Compressed air to ISO 8573-1:2010 [7:-:-] | | | | | |
| Note on operating/ pilot medium | Lubricated operation possible (in which case lubricated operation will always be required) | | | | | |
| Operating pressure range [bar] | -0.95 ... 10 | | 2.5 ... 10 | | -0.95 ... 10 | 2.5 ... 10 |
| With internal or external pilot air NC valves [bar] | Internal 3.5 ... 10 | External 3.0 ... 10 | Internal 3.0 ... 10 | External 2.5 ... 10 | - | - |
| NO valves [bar] | 3.5 ... 10 | 3.0 ... 10 | 3.5 ... 10 | 2.5 ... 10 | - | - |
| Operating pressure range [psi] | -14 ... 145 | | 36 ... 145 | | 36 ... 145 | -14 ... 145 |
| With internal or external pilot air NC valves [psi] | Internal 51 ... 145 | External 44 ... 145 | Internal 44 ... 145 | External 36 ... 145 | - | - |
| NO valves [psi] | 51 ... 145 | 44 ... 145 | 51 ... 145 | 36 ... 145 | - | - |
| Pilot pressure range [bar] | - | | - | | 2.5 ... 10 | 2.5 ... 10 |
| Temperature of medium [°C] | -10 ... +60 | | | | | |
| Ambient temperature [°C] | -10 ... +60 | | | | | |
| Corrosion resistance class CRC ¹⁾ | 2 | | | | | |

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

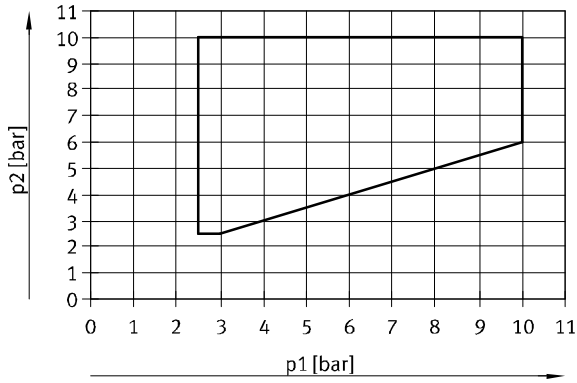
Moderate corrosion stress. Indoor applications in which condensation may occur. External visible parts with primarily decorative requirements for the surface and which are in direct contact with the ambient atmosphere typical for industrial applications.

Mechanically actuated valves VMEF

Technical data – Stem actuated valve

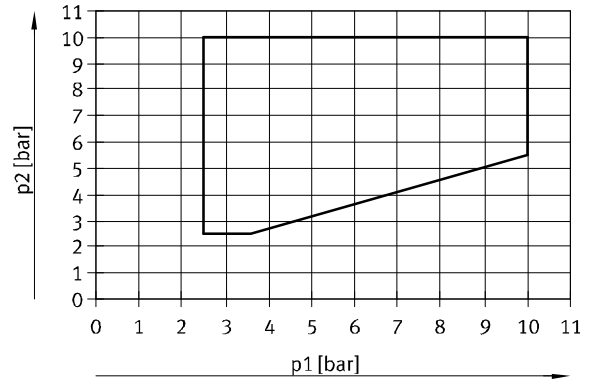
Pilot pressure p_2 as a function of external pneumatic spring pressure p_1

For piston spool valves VMEF-...-M52...18



The framed area shows the operating area for internal and external pilot air.

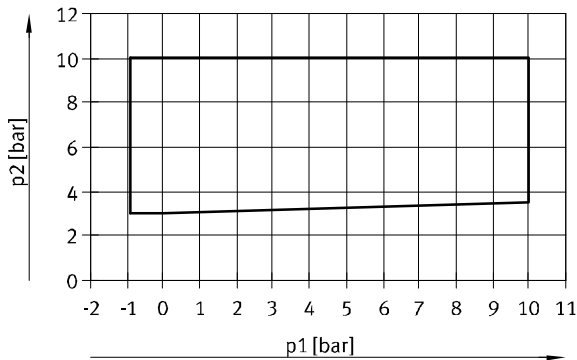
For piston spool valves VMEF-...-M52...14



The framed area shows the operating area for internal and external pilot air.

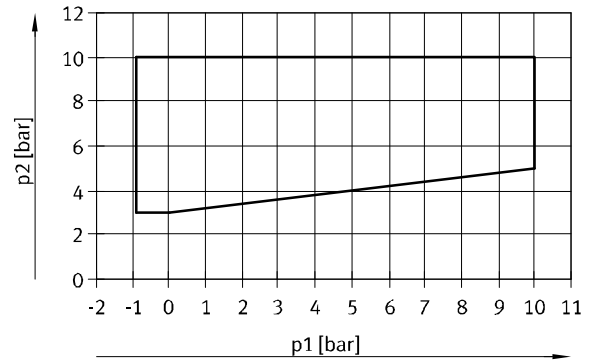
Pilot pressure p_2 as a function of working pressure p_1

For disc seat valves VMEF-...-M32...
(normally closed, NC)



The framed area shows the operating area for external pilot air.

For disc seat valves VMEF-...-M32...
(normally open, NO)



The framed area shows the operating area for external pilot air.

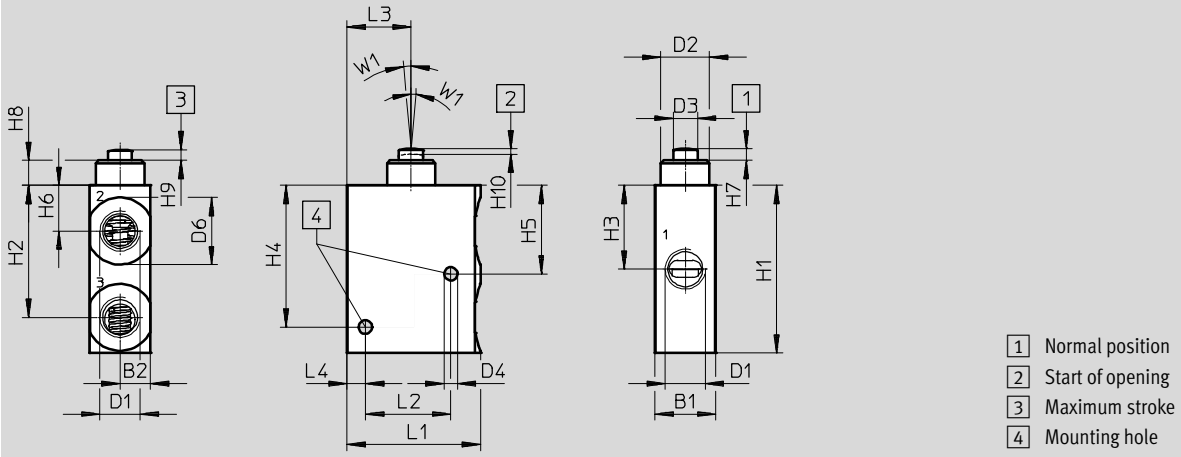
Mechanically actuated valves VMEF

Technical data – Stem actuated valve

Dimensions

Download CAD data → www.festo.com

3/2-way valve



| Type | B1 | B2 | D1 | D2 Ø | D3 Ø | D4 Ø | D6 Ø | L1 | L2 | L3 | L4 |
|-------------------|----|----|---------|---------|---------|---------|---------|------|----|----|----|
| VMEF-ST-M32-M-G18 | 20 | 10 | G1/8 | 16.0 | 8.0 | 4.4 | 16.5 | 43.7 | 28 | 21 | 6 |
| VMEF-ST-M32-M-N18 | | | 1/8 NPT | | | | | | | | |
| VMEF-ST-M32-M-G14 | | | G1/4 | | | | | | | | |
| VMEF-ST-M32-M-N14 | | | 1/4 NPT | | | | | | | | |

| Type | H1 | H2 | H3 | H4 | H5 | H6 | H7 ±0.2 | H8 | H9 ±0.3 | H10 ±0.3 | W1 |
|-------------------|----|------|------|------|----|----|------------|-----|------------|-------------|----|
| VMEF-ST-M32-M-G18 | 55 | 43.3 | 27.5 | 46.5 | 29 | 15 | 3.8 | 8.2 | 3.5 | 1.8 | 5° |
| VMEF-ST-M32-M-N18 | | | | | | | | | | | |
| VMEF-ST-M32-M-G14 | | | | | | | | | | | |
| VMEF-ST-M32-M-N14 | | | | | | | | | | | |

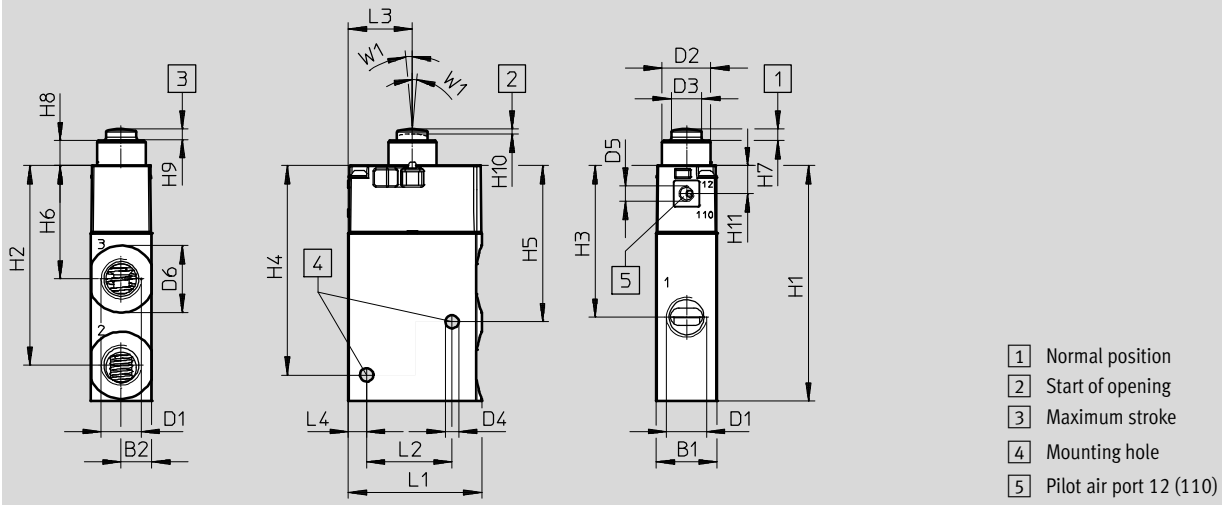
Mechanically actuated valves VMEF

Technical data – Stem actuated valve

Dimensions

Download CAD data → www.festo.com

3/2-way valve and 3/2-way valve with external pilot air supply



- 1 Normal position
- 2 Start of opening
- 3 Maximum stroke
- 4 Mounting hole
- 5 Pilot air port 12 (110)

| Type | B1 | B2 | D1 | D2 ∅ | D3 ∅ | D4 ∅ | D5 | D6 ∅ | L1 | L2 | L3 | L4 | |
|---------------------|----|----|---------|---------|---------|---------|----|---------|------|----|----|----|------|
| VMEF-STC-M32-M-G18 | 20 | 10 | G1/8 | 15.9 | 10 | 4.4 | - | 16.5 | 43.7 | 28 | 21 | 6 | |
| VMEF-STC-M32-M-N18 | | | 1/8 NPT | | | | | | | | | | |
| VMEF-STC-M32-M-G14 | | | G1/4 | | | | | 22 | | | | | |
| VMEF-STC-M32-M-N14 | | | 1/4 NPT | | | | | | | | | | |
| VMEF-STCZ-M32-M-G18 | | | G1/8 | | | | | M5 | | | | | 16.5 |
| VMEF-STCZ-M32-M-N18 | | | 1/8 NPT | | | | | | | | | | |
| VMEF-STCZ-M32-M-G14 | | | G1/4 | | | | | | | | | | 22 |
| VMEF-STCZ-M32-M-N14 | | | 1/4 NPT | | | | | | | | | | |

| Type | H1 | H2 | H3 | H4 | H5 | H6 | H7 ±0.15 | H8 | H9 ±0.15 | H10 ±0.4 | H11 | W1 |
|---------------------|------|------|------|------|------|------|-------------|-----|-------------|-------------|-----|----|
| VMEF-STC-M32-M-G18 | 77.2 | 65.5 | 49.7 | 68.7 | 51.2 | 37.2 | 3.8 | 8.2 | 3.5 | 1.6 | 9.2 | 5° |
| VMEF-STC-M32-M-N18 | | | | | | | | | | | | |
| VMEF-STC-M32-M-G14 | | | | | | | | | | | | |
| VMEF-STC-M32-M-N14 | | | | | | | | | | | | |
| VMEF-STCZ-M32-M-G18 | | | | | | | | | | | | |
| VMEF-STCZ-M32-M-N18 | | | | | | | | | | | | |
| VMEF-STCZ-M32-M-G14 | | | | | | | | | | | | |
| VMEF-STCZ-M32-M-N14 | | | | | | | | | | | | |

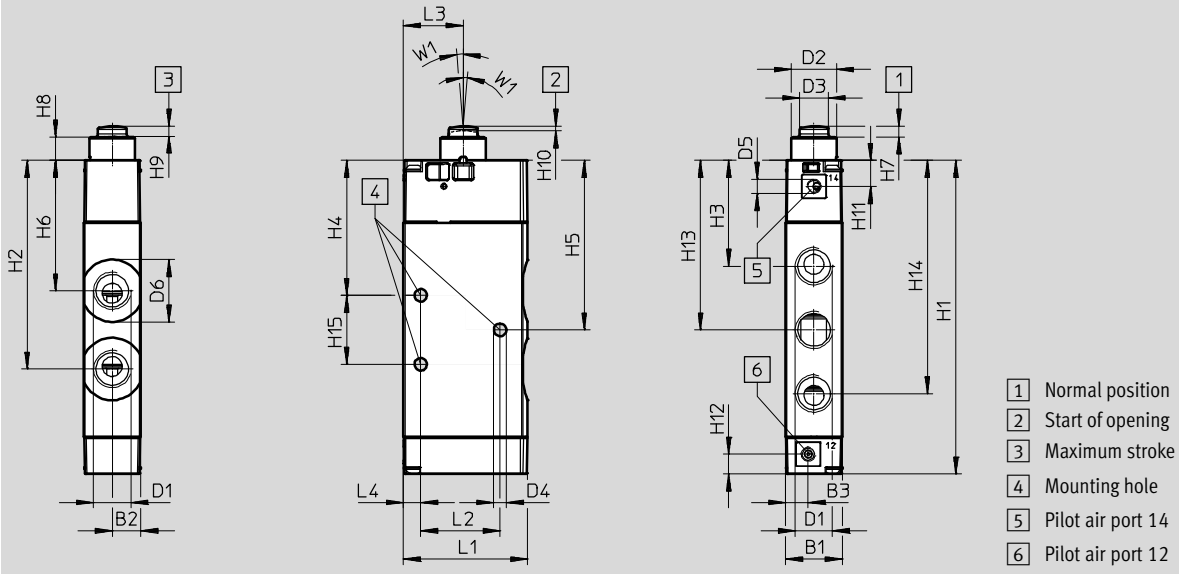
Mechanically actuated valves VMEF

Technical data – Stem actuated valve

Dimensions

Download CAD data → www.festo.com

5/2-way valve and 5/2-way valve with external pilot air supply



| Type | B1 | B2 | B3 | D1 | D2 ∅ | D3 ∅ | D4 ∅ | D5 | D6 ∅ | L1 | L2 | L3 | L4 | | |
|--------------------|----|----|----|---------|---------|---------|---------|----|---------|------|----|----|-----|----|----|
| VMEF-SC-M52-M-G18 | 20 | 10 | 8 | G1/8 | 15.9 | 10 | 4.4 | - | 16.5 | 43.7 | 28 | 21 | 8.2 | | |
| VMEF-SC-M52-M-N18 | | | | 1/8 NPT | | | | | | | | | | | |
| VMEF-SCZ-M52-M-G18 | | | | G1/8 | | | | | | | | | | M5 | |
| VMEF-SCZ-M52-M-N18 | | | | 1/8 NPT | | | | | | | | | | | |
| VMEF-SCZ-M52-E-G18 | | | | G1/8 | | | | | | | | | | | |
| VMEF-SCZ-M52-E-N18 | | | | 1/8 NPT | | | | | | | | | | | |
| VMEF-SC-M52-M-G14 | | | | G1/4 | | | | | | | | | | - | 22 |
| VMEF-SC-M52-M-N14 | | | | 1/4 NPT | | | | | | | | | | | |
| VMEF-SCZ-M52-M-G14 | | | | G1/4 | | | | | | | | | | M5 | |
| VMEF-SCZ-M52-M-N14 | | | | 1/4 NPT | | | | | | | | | | | |
| VMEF-SCZ-M52-E-G14 | | | | G1/4 | | | | | | | | | | | |
| VMEF-SCZ-M52-E-N14 | | | | 1/4 NPT | | | | | | | | | | | |

| Type | H1 | H2 | H3 | H4 | H5 | H6 | H7 ±0.15 | H8 | H9 ±0.15 | H10 ±0.4 | H11 | H12 | H13 | H14 | H15 | W1 |
|--------------------|-------|------|------|------|------|------|-------------|-----|-------------|-------------|-----|-----|------|------|------|----|
| VMEF-SC-M52-M-G18 | 94.1 | 61.4 | 34.6 | 42.6 | 51.6 | 41.8 | 3.8 | 8.2 | 3.5 | 1.6 | 9.2 | 7 | 51.6 | 68.6 | 18 | 5° |
| VMEF-SC-M52-M-N18 | | | | | | | | | | | | | | | | |
| VMEF-SCZ-M52-M-G18 | | | | | | | | | | | | | | | | |
| VMEF-SCZ-M52-M-N18 | | | | | | | | | | | | | | | | |
| VMEF-SCZ-M52-E-G18 | | | | | | | | | | | | | | | | |
| VMEF-SCZ-M52-E-N18 | | | | | | | | | | | | | | | | |
| VMEF-SC-M52-M-G14 | 110.6 | 73.6 | 37.4 | 47.7 | 59.8 | 46 | | | | | | | 59.8 | 82.3 | 24.3 | |
| VMEF-SC-M52-M-N14 | | | | | | | | | | | | | | | | |
| VMEF-SCZ-M52-M-G14 | | | | | | | | | | | | | | | | |
| VMEF-SCZ-M52-M-N14 | | | | | | | | | | | | | | | | |
| VMEF-SCZ-M52-E-G14 | | | | | | | | | | | | | | | | |
| VMEF-SCZ-M52-E-N14 | | | | | | | | | | | | | | | | |

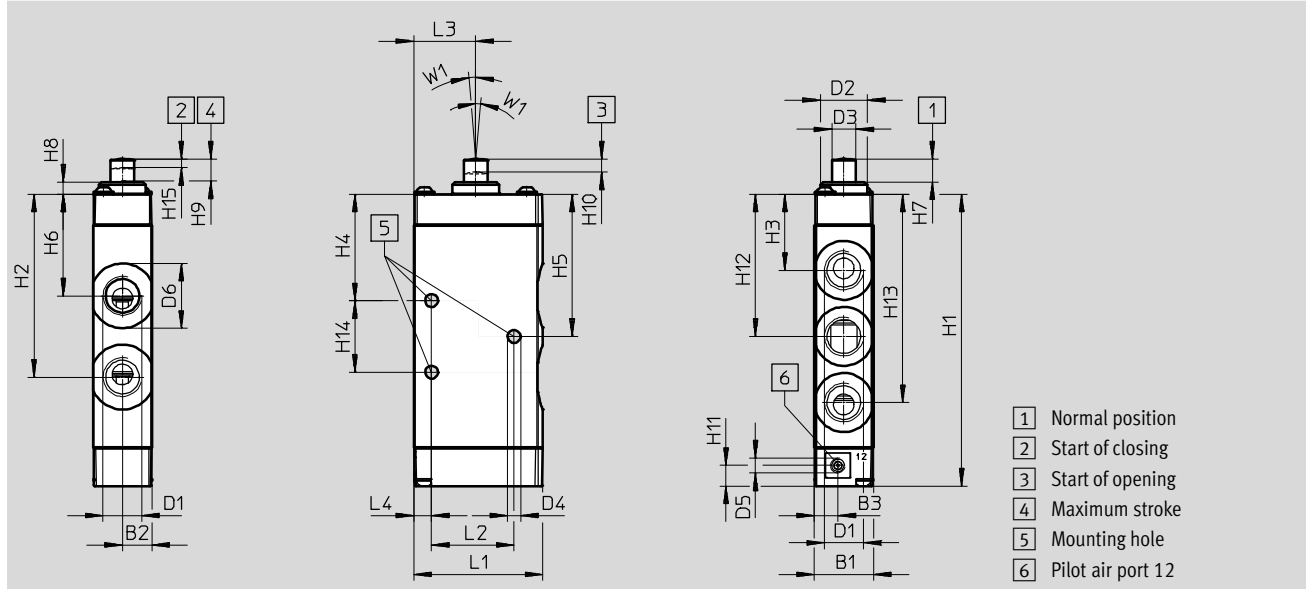
Mechanically actuated valves VMEF

Technical data – Stem actuated valve

Dimensions

Download CAD data → www.festo.com

5/2-way valve



| Type | B1 | B2 | B3 | D1 | D2 Ø | D3 Ø | D4 Ø | D5 | D6 Ø | L1 | L2 | L3 | L4 | H1 | H2 | | | |
|------------------|----|----|----|---------|---------|---------|---------|----|---------|------|----|----|----|------|------|----|------|------|
| VMEF-S-M52-M-G18 | 20 | 10 | 8 | G1/8 | 16 | 8 | 4.4 | – | 16.5 | 43.7 | 28 | 21 | 6 | 82.6 | 49.9 | | | |
| VMEF-S-M52-E-G18 | | | | M5 | | | | | | | | | | | | | | |
| VMEF-S-M52-M-N18 | | | | 1/8 NPT | | | | – | | | | | | | | | | |
| VMEF-S-M52-E-N18 | | | | M5 | | | | | | | | | | | | | | |
| VMEF-S-M52-M-G14 | | | | G1/4 | | | | – | | | | | | | | 22 | 99.1 | 62.1 |
| VMEF-S-M52-E-G14 | | | | M5 | | | | | | | | | | | | | | |
| VMEF-S-M52-M-N14 | | | | 1/4 NPT | | | | – | | | | | | | | | | |
| VMEF-S-M52-E-N14 | | | | M5 | | | | | | | | | | | | | | |

| Type | H3 | H4 | H5 | H6 | H7 ±0.15 | H8 | H9 ±0.15 | H10 ±0.15 | H11 | H12 | H13 | H14 | H15 ±0.15 | W1 |
|------------------|------|------|------|------|-------------|-----|-------------|--------------|-----|------|------|------|--------------|----|
| VMEF-S-M52-M-G18 | 23.1 | 31.1 | 40.1 | 30.3 | 7.5 | 4.2 | 7.5 | 4.2 | 7 | 40.1 | 57.1 | 18 | 3 | 5° |
| VMEF-S-M52-E-G18 | | | | | | | | | | | | | | |
| VMEF-S-M52-M-N18 | | | | | | | | | | | | | | |
| VMEF-S-M52-E-N18 | | | | | | | | | | | | | | |
| VMEF-S-M52-M-G14 | 25.9 | 36.2 | 48.3 | 34.5 | 7.5 | 4.2 | 7.5 | 4.5 | 7 | 48.3 | 70.8 | 24.3 | 3 | 5° |
| VMEF-S-M52-E-G14 | | | | | | | | | | | | | | |
| VMEF-S-M52-M-N14 | | | | | | | | | | | | | | |
| VMEF-S-M52-E-N14 | | | | | | | | | | | | | | |

Stem actuated valves VMEF-S... can be extended to form a roller lever or toggle lever valve using the actuator attachment VAOM-R4-20-.... Actuator attachments are available for 3/2-way and 5/2-way valves. → Page 28

Using the mounting kit VAME-R4-20-PA, the valve can be moved in the actuation direction. This enables the correct switching point to be set. → Page 33

Note

- When screwing the actuator attachment VAOM-R4-20-... onto the valve, ensure that the prescribed torque of 1.5 Nm ± 10% is observed.
- A new actuator attachment VAOM-R4-20-... can only be mounted on a basic valve three times.

Mechanically actuated valves VMEF

Technical data – Stem actuated valve




| Ordering data | | | | | |
|-----------------------------------|-------------------------|------------|------------|----------------|----------------------------|
| Type of control | Pilot air ¹⁾ | Reset | Weight [g] | Part No. | Type |
| 3/2-way valves, G thread | | | | | |
| Direct | – | Mechanical | 116 | 8031295 | VMEF-ST-M32-M-G18 |
| | | | 110 | 8031300 | VMEF-ST-M32-M-G14 |
| Piloted | Internal | Mechanical | 131 | 8031331 | VMEF-STC-M32-M-G18 |
| | | | 124 | 8031332 | VMEF-STC-M32-M-G14 |
| | External | Mechanical | 131 | 8031335 | VMEF-STCZ-M32-M-G18 |
| | | | 124 | 8031336 | VMEF-STCZ-M32-M-G14 |
| 5/2-way valves, G thread | | | | | |
| Direct | – | Mechanical | 145 | 8031297 | VMEF-S-M52-M-G18 |
| | | Pneumatic | 144 | 8031299 | VMEF-S-M52-E-G18 |
| | | Mechanical | 178 | 8031302 | VMEF-S-M52-M-G14 |
| | | Pneumatic | 177 | 8031304 | VMEF-S-M52-E-G14 |
| Piloted | Internal | Mechanical | 184 | 8031319 | VMEF-SC-M52-M-G14 |
| | | | 151 | 8031320 | VMEF-SC-M52-M-G18 |
| | External | Pneumatic | 183 | 8031323 | VMEF-SCZ-M52-E-G14 |
| | | | 150 | 8031324 | VMEF-SCZ-M52-E-G18 |
| | | | 184 | 8031327 | VMEF-SCZ-M52-M-G14 |
| | | | 151 | 8031328 | VMEF-SCZ-M52-M-G18 |
| 3/2-way valves, NPT thread | | | | | |
| Direct | – | Mechanical | 116 | 8031305 | VMEF-ST-M32-M-N18 |
| | | | 110 | 8031310 | VMEF-ST-M32-M-N14 |
| Piloted | Internal | Mechanical | 131 | 8031333 | VMEF-STC-M32-M-N18 |
| | | | 124 | 8031334 | VMEF-STC-M32-M-N14 |
| | External | Mechanical | 131 | 8031337 | VMEF-STCZ-M32-M-N18 |
| | | | 124 | 8031338 | VMEF-STCZ-M32-M-N14 |
| 5/2-way valves, NPT thread | | | | | |
| Direct | – | Mechanical | 145 | 8031307 | VMEF-S-M52-M-N18 |
| | | Pneumatic | 144 | 8031309 | VMEF-S-M52-E-N18 |
| | | Mechanical | 178 | 8031312 | VMEF-S-M52-M-N14 |
| | | Pneumatic | 177 | 8031314 | VMEF-S-M52-E-N14 |
| Piloted | Internal | Mechanical | 184 | 8031321 | VMEF-SC-M52-M-N14 |
| | | | 151 | 8031322 | VMEF-SC-M52-M-N18 |
| | External | Pneumatic | 183 | 8031325 | VMEF-SCZ-M52-E-N14 |
| | | | 150 | 8031326 | VMEF-SCZ-M52-E-N18 |
| | | | 184 | 8031329 | VMEF-SCZ-M52-M-N14 |
| | | | 151 | 8031330 | VMEF-SCZ-M52-M-N18 |

1) With piloted valves

Mechanically actuated valves VMEF

Technical data – Roller lever valve

FESTO

-  Flow rate
750 ... 1200 l/min
-  Pressure
-0.95 ... 10 bar
-  Temperature range
-10 ... +60 °C



| General technical data | |
|---|-------------------|
| Design | Roller lever |
| Width [mm] | 20 |
| Type of control | Directly actuated |
| Notes regarding use | Risk of pinching |
| Type of actuation | Mechanical |
| Mounting | Via through-hole |
| Sealing principle | Soft |
| Flow direction | Reversible |
| Mounting position | Any |
| Max. switching frequency [Hz] | 3 |
| Max. actuating speed for side actuation [m/s] | 1.4 |
| Cam angle in angular degrees | 30 |

| Technical data – Disc seat valve | | | |
|--|-----|---------------------------|-------------------|
| Type | | VMEF-RT-M32-...18 | VMEF-RT-M32-...14 |
| Version | | Disc seat valve | |
| Standard nominal flow rate $1 \rightarrow 2$ [l/min] | | 750 | 870 |
| Valve function | | 3/2-way valve, monostable | |
| Lap | | Zero lap | |
| Type of reset | | Mechanical spring | |
| Pneumatic connection 1, 2, 3 | G | 1/8 | 1/4 |
| | NPT | 1/8 | 1/4 |
| Nominal size [mm] | | 5.6 | 6 |
| Max. stroke limit (hard) [mm] | | 6.3 | |
| Actuating force [N] | | 35.2 | |

| Technical data – Piston spool valve | | | | | |
|--|-----|---------------------------|--------------------|--------------------|--------------------|
| Type | | VMEF-R-M52-E-...18 | VMEF-R-M52-M-...18 | VMEF-R-M52-E-...14 | VMEF-R-M52-M-...14 |
| Version | | Piston spool valve | | | |
| Standard nominal flow rate $1 \rightarrow 2$ [l/min] | | 750 | | 1200 | |
| Valve function | | 5/2-way valve, monostable | | | |
| Lap | | Overlap | | | |
| Type of reset | | Pneumatic spring | Mechanical spring | Pneumatic spring | Mechanical spring |
| Max. switching frequency [Hz] | | 3 | | | |
| Pneumatic connection 1, 2, 3 | G | 1/8 | 1/8 | 1/4 | 1/4 |
| | NPT | 1/8 | 1/8 | 1/4 | 1/4 |
| Nominal size [mm] | | 5.2 | 5.2 | 7 | 7 |
| Max. stroke limit (hard) [mm] | | 11.6 | | | |
| Actuating force [N] | | 38 | | | |

Mechanically actuated valves VMEF

Technical data – Roller lever valve

| Materials | |
|---------------------|----------------------------------|
| Housing | Anodised wrought aluminium alloy |
| Cover | PA reinforced (VMEF...-M52-) |
| Actuator attachment | Galvanised steel |
| Seal | NBR |
| Note on materials | RoHS compliant |

| Operating and environmental conditions | |
|--|--|
| Operating medium | Compressed air to ISO 8573-1:2010 [7:-:-] |
| Note on operating/ pilot medium | Lubricated operation possible (in which case lubricated operation will always be required) |
| Operating pressure range [bar] | -0.95 ... 10 |
| Temperature of medium [°C] | -10 ... +60 |
| Ambient temperature [°C] | -10 ... +60 |
| Note on ambient temperature | Influence of heat on wear |
| Corrosion resistance class CRC ¹⁾ | 1 |

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

Mechanically actuated valves VMEF

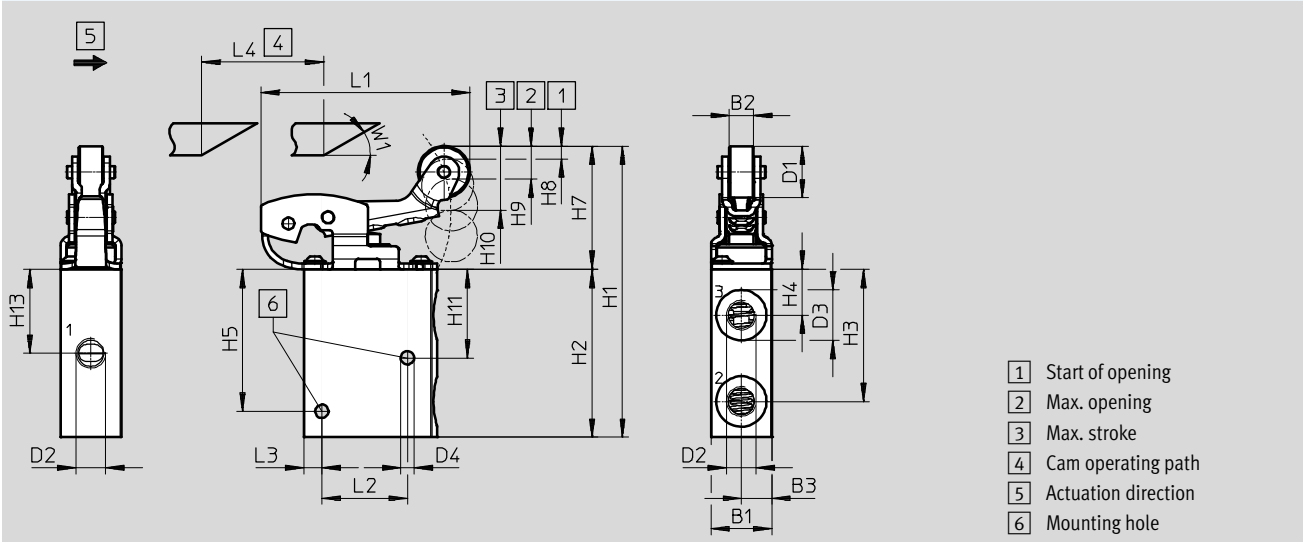
Technical data – Roller lever valve



Dimensions

Download CAD data → www.festo.com

3/2-way valve



| Type | B1 | B2 | B3 | D1 ø | D2 | D3 | D4 ø | L1 | L2 | L3 | L4 Min. |
|-------------------|----|----|----|---------|---------|------|---------|------|----|----|------------|
| VMEF-RT-M32-M-G18 | 20 | 8 | 10 | 17 | G1/8 | 16.5 | 4.4 | 68.5 | 28 | 6 | 40 |
| VMEF-RT-M32-M-N18 | | | | | 1/8 NPT | | | | | | |
| VMEF-RT-M32-M-G14 | | | | | G1/4 | 22 | | | | | |
| VMEF-RT-M32-M-N14 | | | | | 1/4 NPT | | | | | | |

| Type | H1 | H2 | H3 | H4 | H5 | H7 | H8 | H9 | H10 | H11 | H13 | W1 |
|-------------------|------|----|------|----|------|----|-----|-----|------|-----|------|-----|
| VMEF-RT-M32-M-G18 | 91.9 | 55 | 43.3 | 15 | 46.5 | 39 | 5.3 | 6.3 | 10.8 | 29 | 27.5 | 30° |
| VMEF-RT-M32-M-N18 | | | | | | | | | | | | |
| VMEF-RT-M32-M-G14 | | | | | | | | | | | | |
| VMEF-RT-M32-M-N14 | | | | | | | | | | | | |

- - Note

Roller lever valves can be actuated by a cam from either side, i.e. from the left (forwards movement) or from the right (backwards movement).

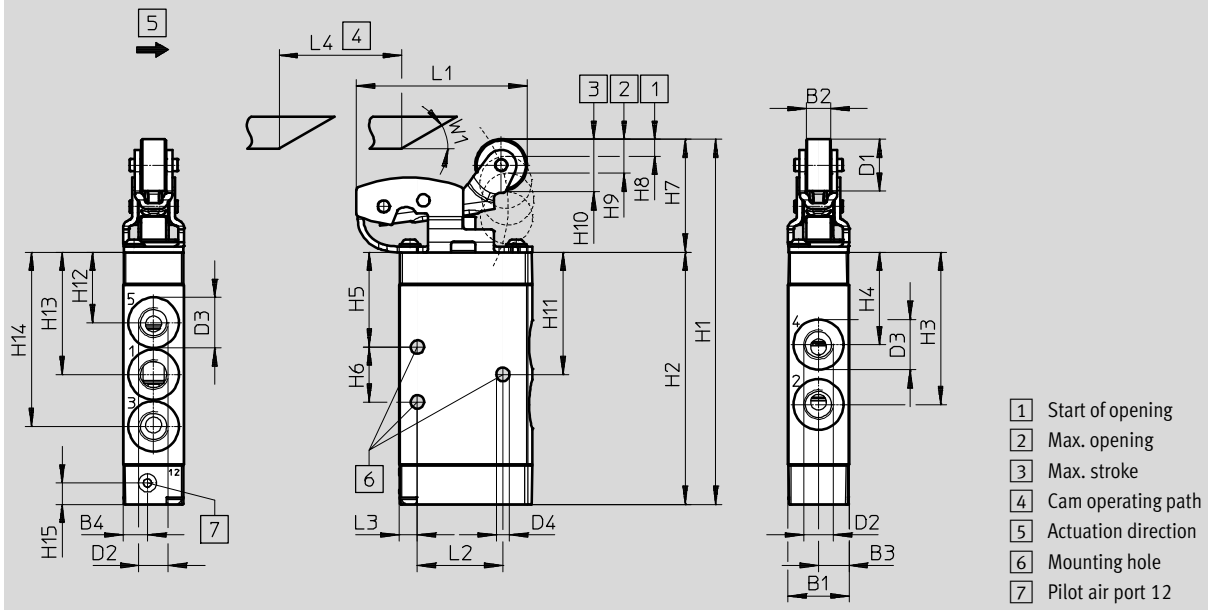
Mechanically actuated valves VMEF

Technical data – Roller lever valve

Dimensions

Download CAD data → www.festo.com

5/2-way valve



| Type | B1 | B2 | B3 | B4 | D1 ∅ | D2 | D3 | D4 | L1 | L2 | L3 | L4 Min. | H1 | H2 |
|-------------------|----|----|----|----|---------|---------|------|-------|----|----|----|------------|-------|------|
| VMEF-R-M52-...G18 | 20 | 8 | 10 | 8 | 17 | G1/8 | 16.5 | 4.4 | 56 | 28 | 6 | 40 | 119.6 | 82.6 |
| VMEF-R-M52-...N18 | | | | | | 1/8 NPT | | | | | | | | |
| VMEF-R-M52-...G14 | | | | | | G1/4 | 22 | 136.1 | | | | | 99.1 | |
| VMEF-R-M52-...N14 | | | | | | 1/4 NPT | | | | | | | | |

| Type | H3 | H4 | H5 | H6 | H7 | H8 | H9 | H10 | H11 | H12 | H13 | H14 | H15 | W1 |
|-------------------|------|------|------|------|------|----|-----|------|------|------|------|------|-----|-----|
| VMEF-R-M52-...G18 | 49.9 | 30.3 | 31.1 | 18 | 37.2 | 6 | 4.9 | 11.4 | 40.1 | 23.1 | 40.1 | 57.1 | 7 | 30° |
| VMEF-R-M52-...N18 | | | | 48.3 | | | | | 25.9 | 48.3 | 70.8 | | | |
| VMEF-R-M52-...G14 | 62.1 | 34.5 | 36.2 | 24.3 | | | | | 48.3 | 25.9 | 48.3 | 70.8 | | |
| VMEF-R-M52-...N14 | | | | | | | | | | | | | | |

Mechanically actuated valves VMEF




Technical data – Roller lever valve

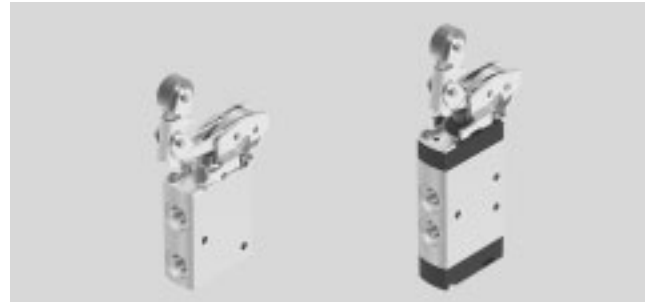
| Ordering data | | | | |
|----------------------------|------------|------------|----------------|--------------------------|
| Type of control | Reset | Weight [g] | Part No. | Type |
| 3/2-way valves, G thread | | | | |
| Direct | Mechanical | 209 | 8049239 | VMEF-RT-M32-M-G18 |
| | | 204 | 8047095 | VMEF-RT-M32-M-G14 |
| 5/2-way valves, G thread | | | | |
| Direct | Pneumatic | 240 | 8047092 | VMEF-R-M52-E-G18 |
| | Mechanical | 240 | 8049238 | VMEF-R-M52-M-G18 |
| | Pneumatic | 272 | 8047093 | VMEF-R-M52-E-G14 |
| | Mechanical | 272 | 8047094 | VMEF-R-M52-M-G14 |
| 3/2-way valves, NPT thread | | | | |
| Direct | Mechanical | 209 | 8047098 | VMEF-RT-M32-M-N18 |
| | Mechanical | 204 | 8047101 | VMEF-RT-M32-M-N14 |
| 5/2-way valves, NPT thread | | | | |
| Direct | Pneumatic | 240 | 8047096 | VMEF-R-M52-E-N18 |
| | Mechanical | 240 | 8047097 | VMEF-R-M52-M-N18 |
| | Pneumatic | 272 | 8047099 | VMEF-R-M52-E-N14 |
| | Mechanical | 272 | 8047100 | VMEF-R-M52-M-N14 |

Mechanically actuated valves VMEF

Technical data – Roller lever valve

FESTO

-  Flow rate
750 ... 1200 l/min
-  Pressure
-0.95 ... 10 bar
-  Temperature range
-10 ... +60 °C



| General technical data | |
|---|-------------------|
| Design | Toggle lever |
| Width [mm] | 20 |
| Type of control | Directly actuated |
| Notes regarding use | Risk of pinching |
| Type of actuation | Mechanical |
| Mounting | Via through-hole |
| Sealing principle | Soft |
| Flow direction | Reversible |
| Mounting position | Any |
| Max. switching frequency [Hz] | 3 |
| Max. actuating speed for side actuation [m/s] | 0.7 |
| Cam angle in angular degrees | 30 |

| Technical data – Disc seat valve | | |
|--|---------------------------|-------------------|
| Type | VMEF-KT-M32-...18 | VMEF-KT-M32-...14 |
| Version | Disc seat valve | |
| Standard nominal flow rate 1 → 2 [l/min] | 750 | 870 |
| Valve function | 3/2-way valve, monostable | |
| Lap | Zero lap | |
| Type of reset | Mechanical spring | |
| Pneumatic connection 1, 2, 3 | G 1/8 NPT 1/8 | 1/4 1/4 |
| Nominal size [mm] | 5.6 | 6 |
| Max. stroke limit (hard) [mm] | 11 | |
| Actuating force [N] | 32.7 | |

| Technical data – Piston spool valve | | |
|--|---------------------------|--------------------|
| Type | VMEF-K-M52-M-...18 | VMEF-K-M52-M-...14 |
| Version | Piston spool valve | |
| Standard nominal flow rate 1 → 2 [l/min] | 750 | 1200 |
| Valve function | 5/2-way valve, monostable | |
| Lap | Overlap | |
| Type of reset | Mechanical spring | |
| Pneumatic connection 1, 2, 3 | G 1/8 NPT 1/8 | 1/4 1/4 |
| Nominal size [mm] | 5.2 | 7 |
| Max. stroke limit (hard) [mm] | 11.8 | |
| Actuating force [N] | 23.5 | |

Mechanically actuated valves VMEF

Technical data – Roller lever valve

| Materials | |
|---------------------|----------------------------------|
| Housing | Anodised wrought aluminium alloy |
| Cover | PA reinforced (VMEF...-M52-) |
| Actuator attachment | Galvanised steel |
| Seal | NBR |
| Note on materials | RoHS compliant |

| Operating and environmental conditions | |
|--|--|
| Operating medium | Compressed air to ISO 8573-1:2010 [7:-:-] |
| Note on operating/pilot medium | Lubricated operation possible (in which case lubricated operation will always be required) |
| Operating pressure range [bar] | -0.95 ... 10 |
| Temperature of medium [°C] | -10 ... +60 |
| Ambient temperature [°C] | -10 ... +60 |
| Note on ambient temperature | Influence of heat on wear |
| Corrosion resistance class CRC ¹⁾ | 1 |

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

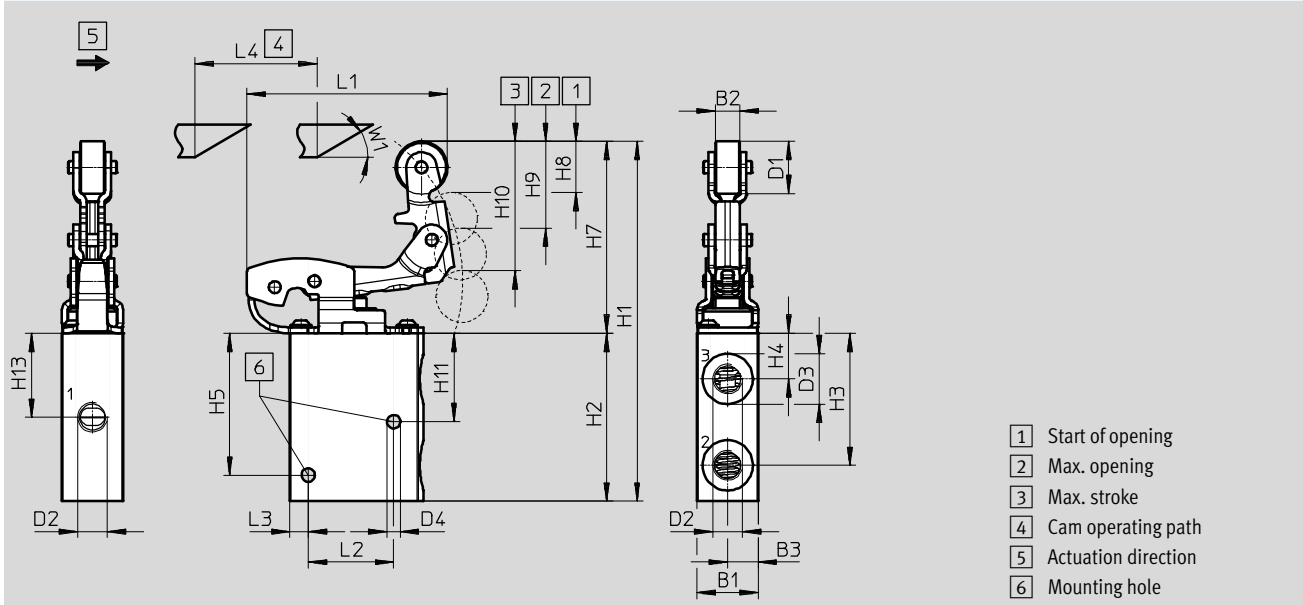
Mechanically actuated valves VMEF

Technical data – Roller lever valve

Dimensions

Download CAD data → www.festo.com

3/2-way valve



| Type | B1 | B2 | B3 | D1 Ø | D2 | D3 | D4 Ø | L1 | L2 | L3 | L4 Min. |
|-------------------|----|----|----|---------|---------|------|---------|------|----|----|------------|
| VMEF-KT-M32-M-G18 | 20 | 8 | 10 | 17 | G1/8 | 16.5 | 4.4 | 65.6 | 28 | 6 | 40 |
| VMEF-KT-M32-M-N18 | | | | | 1/8 NPT | | | | | | |
| VMEF-KT-M32-M-G14 | | | | | G1/4 | 22 | | | | | |
| VMEF-KT-M32-M-N14 | | | | | 1/4 NPT | | | | | | |

| Type | H1 | H2 | H3 | H4 | H5 | H7 | H8 | H9 | H10 | H11 | H13 | W1 |
|-------------------|-------|----|------|----|------|----|----|-----|------|-----|------|-----|
| VMEF-KT-M32-M-G18 | 117.2 | 55 | 43.3 | 15 | 46.5 | 63 | 5 | 5.5 | 10.3 | 29 | 27.5 | 30° |
| VMEF-KT-M32-M-N18 | | | | | | | | | | | | |
| VMEF-KT-M32-M-G14 | | | | | | | | | | | | |
| VMEF-KT-M32-M-N14 | | | | | | | | | | | | |

Note

Roller lever valves can only be actuated by a cam from one side, i.e. only in one direction (forwards movement). If control is applied from the other direction (backwards movement), the valve is not actuated.

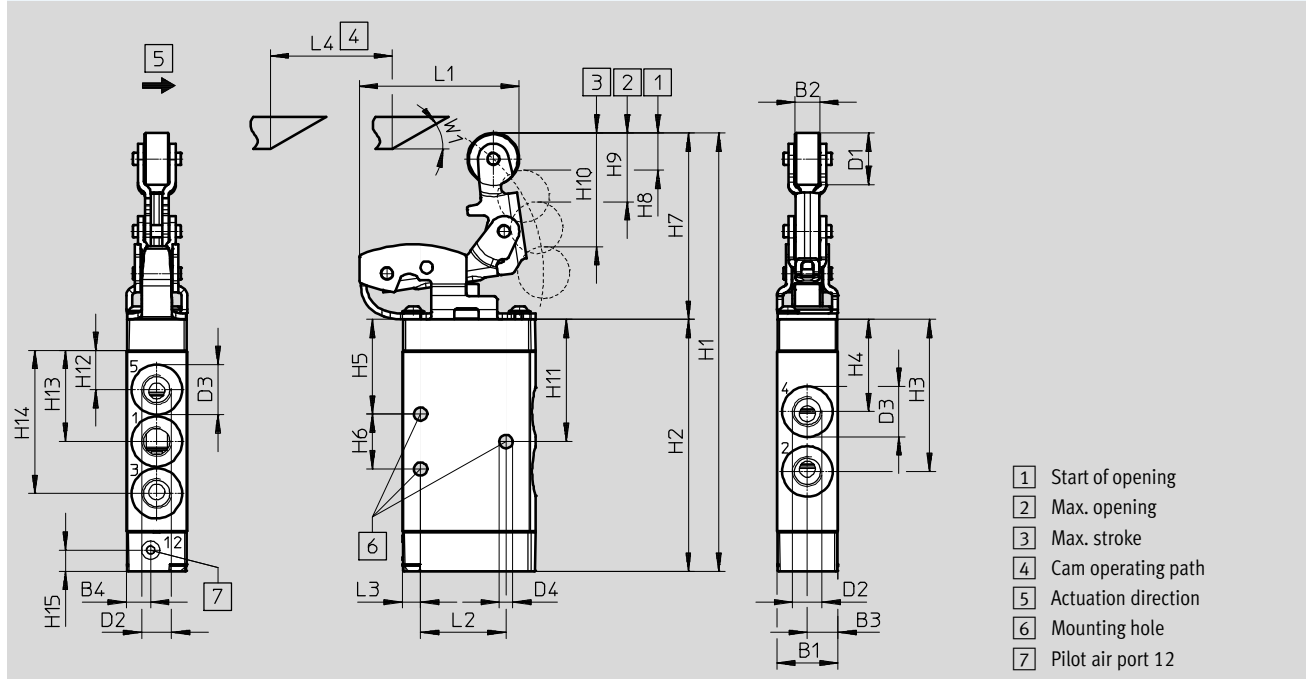
Mechanically actuated valves VMEF

Technical data – Roller lever valve

Dimensions

Download CAD data → www.festo.com

5/2-way valve



| Type | B1 | B2 | B3 | B4 | D1 Ø | D2 | D3 | D4 | L1 | L2 | L3 | L4 Min. | H1 | H2 |
|-------------------|----|----|----|----|---------|---------|------|-----|------|----|----|------------|-------|------|
| VMEF-K-M52-...G18 | 20 | 8 | 10 | 8 | 17 | G1/8 | 16.5 | 4.4 | 52.4 | 28 | 6 | 40 | 143.5 | 82.6 |
| VMEF-K-M52-...N18 | | | | | | 1/8 NPT | | | | | | | | |
| VMEF-K-M52-...G14 | | | | | | G1/4 | 22 | 160 | | | | | 99.1 | |
| VMEF-K-M52-...N14 | | | | | | 1/4 NPT | | | | | | | | |

| Type | H3 | H4 | H5 | H6 | H7 | H8 | H9 | H10 | H11 | H12 | H13 | H14 | H15 | W1 |
|-------------------|------|------|------|------|----|-----|-----|------|------|------|------|------|-----|-----|
| VMEF-K-M52-...G18 | 49.9 | 30.3 | 31.1 | 18 | 61 | 6.7 | 4.5 | 11.2 | 40.1 | 23.1 | 40.1 | 57.1 | 7 | 30° |
| VMEF-K-M52-...N18 | | | | | | | | | 48.3 | | | | | |
| VMEF-K-M52-...G14 | 62.1 | 34.5 | 36.2 | 24.3 | | | | | 48.3 | 25.9 | 48.3 | 70.8 | | |
| VMEF-K-M52-...N14 | | | | | | | | | | | | | | |

If required, actuator attachments VAOM-R4-20-... can be used as spare parts for existing roller lever or roller lever valves. → Page 28

Using the mounting accessories VAME-R4-20-PA, the valve can be moved in the actuation direction. This enables the correct switching point to be set. → Page 33

 Note

When screwing the actuator attachment VAOM-R4-20-... onto the valve, ensure that the prescribed torque of 1.5 Nm ± 10% is observed.

Mechanically actuated valves VMEF

Technical data – Roller lever valve

| Ordering data | | | | |
|-----------------------------------|------------|------------|----------------|--------------------------|
| Type of control | Reset | Weight [g] | Part No. | Type |
| 3/2-way valves, G thread | | | | |
| Direct | Mechanical | 227 | 8049241 | VMEF-KT-M32-M-G18 |
| | | 218 | 8047103 | VMEF-KT-M32-M-G14 |
| 5/2-way valves, G thread | | | | |
| Direct | Mechanical | 255 | 8049240 | VMEF-K-M52-M-G18 |
| | | 286 | 8047102 | VMEF-K-M52-M-G14 |
| 3/2-way valves, NPT thread | | | | |
| Direct | Mechanical | 227 | 8047105 | VMEF-KT-M32-M-N18 |
| | | 218 | 8047107 | VMEF-KT-M32-M-N14 |
| 5/2-way valves, NPT thread | | | | |
| Direct | Mechanical | 255 | 8047104 | VMEF-K-M52-M-N18 |
| | | 286 | 8047106 | VMEF-K-M52-M-N14 |

Mechanically actuated valves VMEF

Technical data – Actuator attachments

Actuator attachments as replacement or extension option for stem actuated valves:

- Roller lever
- Toggle lever



| General technical data | | |
|--------------------------|---|-------------------|
| Type | VAOM-R4-20-D1-... | VAOM-R4-20-D2-... |
| Version | Roller lever | Toggle lever |
| Width [mm] | 20 | |
| Type of control | Directly actuated | |
| Actuation | Mechanical | |
| Mounting position | Screwed onto valve, in the movement plane | |
| Mounting | Screwed with self-tapping screws | |
| Ambient temperature [°C] | -10 ... +60 | |

| Materials | |
|---------------------|------------------|
| Actuator attachment | Galvanised steel |
| Note on materials | RoHS compliant |

Actuator attachments for valves

With the actuator attachments VAOM, it is possible to extend stem actuated valves from the series VMEF.

If an actuator attachment VAOM is screwed onto the corresponding stem actuated valve from the series VMEF, it creates a roller lever or toggle lever valve.

- Roller lever valves can be actuated by a cam from either side, i.e. from the left (forwards movement) or from the right (backwards movement).
- Toggle lever valves can only be actuated by a cam from one side, i.e. only in one direction (forwards movement). If control is applied from the other direction (backwards movement), the valve is not actuated.

The actuator attachment VAOM can also be used to replace mechanically worn actuators for roller lever or toggle lever valves.

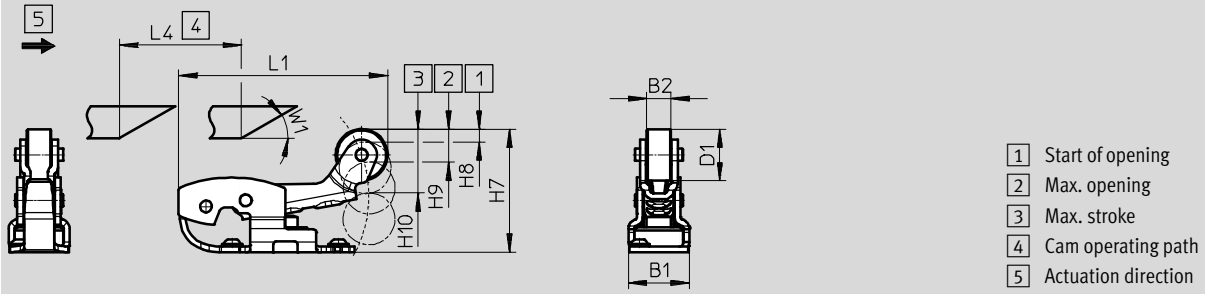
Mechanically actuated valves VMEF

Technical data – Actuator attachments

Dimensions

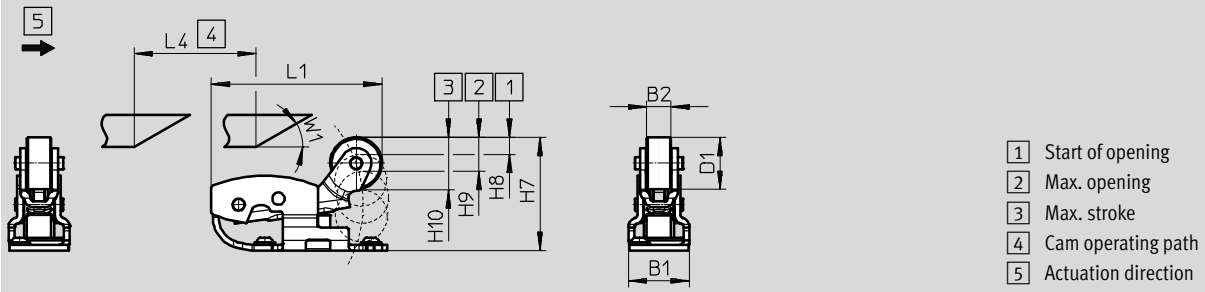
Download CAD data → www.festo.com

Roller lever for 3/2-way valves



| Type | B1 | B2 | D1 | L1 | L4 | H7 | H8 | H9 | H10 | W1 |
|------------------|----|----|----|------|----|------|------|------|------|-----|
| VAOM-R4-20-D1-32 | 20 | 8 | 17 | 68.5 | 40 | ±0.1 | ±0.1 | ±0.1 | ±0.1 | 30° |

Roller lever for 5/2-way valves



| Type | B1 | B2 | D1 | L1 | L4 | H7 | H8 | H9 | H10 | W1 |
|------------------|----|----|----|----|----|------|------|------|------|-----|
| VAOM-R4-20-D1-52 | 20 | 8 | 17 | 56 | 40 | ±0.2 | ±0.3 | ±0.2 | ±0.1 | 30° |

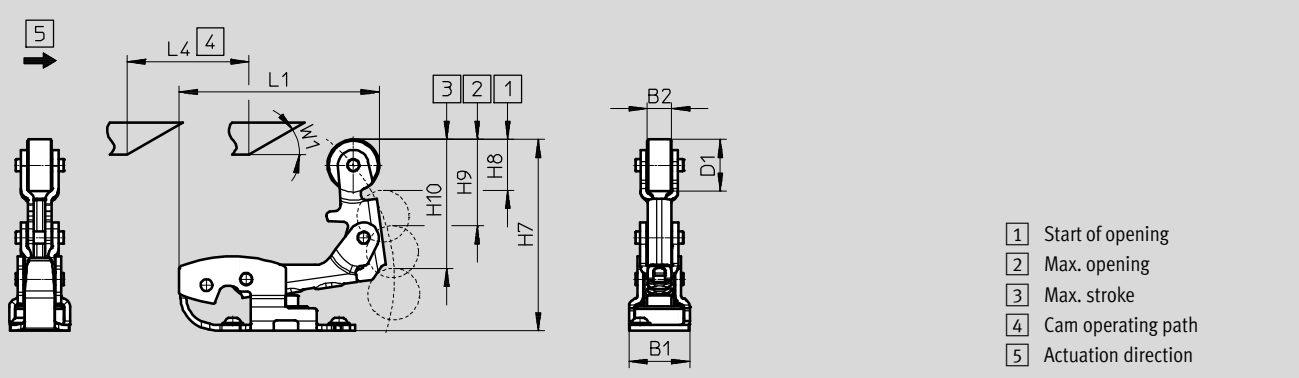
Mechanically actuated valves VMEF

Technical data – Actuator attachments

Dimensions

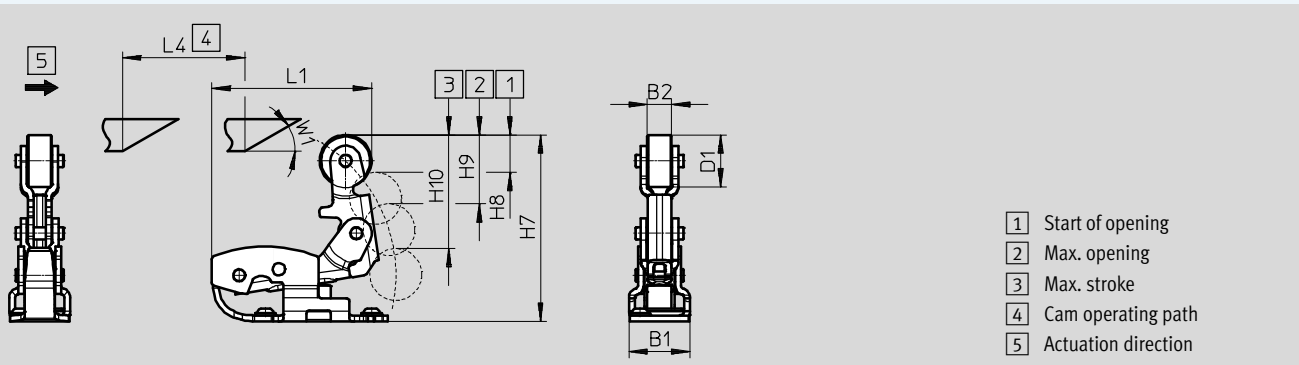
Download CAD data → www.festo.com

Toggle lever for 3/2-way valves



| Type | B1 | B2 | D1 Ø | L1 | L4 Min. | H7 ±0.2 | H8 ±0.2 | H9 ±0.2 | H10 ±0.1 | W1 |
|------------------|----|----|---------|------|------------|------------|------------|------------|-------------|-----|
| VAOM-R4-20-D2-32 | 20 | 8 | 17 | 65.6 | 40 | 62.2 | 5.9 | 5.8 | 11.1 | 30° |

Toggle lever for 5/2-way valves



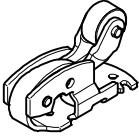
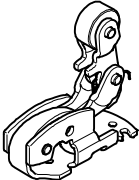
| Type | B1 | B2 | D1 Ø | L1 | L4 Min. | H7 ±0.1 | H8 ±0.3 | H9 ±0.3 | H10 ±0.1 | W1 |
|------------------|----|----|---------|------|------------|------------|------------|------------|-------------|-----|
| VAOM-R4-20-D2-52 | 20 | 8 | 17 | 52.4 | 40 | 60.9 | 7.4 | 7.7 | 11.8 | 30° |

- Note

- When screwing the actuator attachment VAOM-R4-20-... onto the valve, ensure that the prescribed torque of 1.5 Nm ± 10% is observed.
- A new actuator attachment VAOM-R4-20-... can only be mounted on a basic valve three times.

Mechanically actuated valves VMEF

Technical data – Actuator attachments




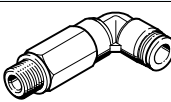


| Ordering data | | | | |
|---|--|----------------|-------------------------|------------------|
| | Description | Part No. | Type | PU ¹⁾ |
| Roller lever | | | | |
|  | For 3/2-way valves, with mounting screws | 8049235 | VAOM-R4-20-D1-32 | 1 |
| | For 5/2-way valves, with mounting screws | 8049233 | VAOM-R4-20-D1-52 | 1 |
| Toggle lever | | | | |
|  | For 3/2-way valves, with mounting screws | 8049237 | VAOM-R4-20-D2-32 | 1 |
| | For 5/2-way valves, with mounting screws | 8049236 | VAOM-R4-20-D2-52 | 1 |

1) Packaging unit

Mechanically actuated valves VMEF

Accessories

FESTO

| Ordering data – G thread | | | | | | |
|---|--------------------|--|---------------|----------------------|------------------------|------------|
| | Description | | Part No. | Type | PU ¹⁾ | |
| Push-in fitting, straight | | | | | | |
|  | With internal hex | Connecting thread M5 for tubing O.D. | 4 mm | 153315 | QSM-M5-4-I | 10 |
| | | | 4 mm | 186106 | QS-G1/8-4-I | 10 |
| | | Connecting thread G1/8 for tubing O.D. | 4 mm | 133008 | QS-G1/8-4-I-100 | 100 |
| | | | | 186107 | QS-G1/8-6-I | 10 |
| | | | 6 mm | 133009 | QS-G1/8-6-I-100 | 100 |
| | | | | 186109 | QS-G1/8-8-I | 10 |
| | | | 8 mm | 133010 | QS-G1/8-8-I-100 | 100 |
| | | | | 186108 | QS-G1/4-6-I | 10 |
| | | Connecting thread G1/4 for tubing O.D. | 8 mm | 186110 | QS-G1/4-8-I | 10 |
| | | | 10 mm | 186112 | QS-G1/4-10-I | 10 |
| 186109 | QS-G1/8-8-I | | 10 | | | |
|  | With external hex | Connecting thread M5 for tubing O.D. | 3 mm | 153302 | QSM-M5-3 | 10 |
| | | | 4 mm | 153304 | QSM-M5-4 | 10 |
| | | | 6 mm | 153306 | QSM-M5-6 | 10 |
| | | Connecting thread G1/8 for tubing O.D. | 4 mm | 186095 | QS-G1/8-4 | 10 |
| | | | 6 mm | 186096 | QS-G1/8-6 | 10 |
| | | Connecting thread G1/4 for tubing O.D. | 6 mm | 186097 | QS-G1/4-6 | 10 |
| | | | 8 mm | 186099 | QS-G1/4-8 | 10 |
| | | | 10 mm | 186101 | QS-G1/4-10 | 10 |
| | | | 12 mm | 186350 | QS-G1/4-12 | 10 |
| | | | 186109 | QS-G1/8-8-I | 10 | |
| Push-in fitting, angled | | | | | | |
|  | With external hex | Connecting thread G1/8 for tubing O.D. | 4 mm | 186116 | QSL-G1/8-4 | 10 |
| | | | | 132048 | QSL-G1/8-4-100 | 100 |
| | | | 6 mm | 186117 | QSL-G1/8-6 | 10 |
| | | | | 132049 | QSL-G1/8-6-100 | 100 |
| | | | 8 mm | 186119 | QSL-G1/8-8 | 10 |
| | | | | 132050 | QSL-G1/8-8-50 | 50 |
| | | Connecting thread G1/4 for tubing O.D. | 8 mm | 186120 | QSL-G1/4-8 | 10 |
| | | | 132052 | QSL-G1/4-8-50 | 50 | |
| | | | 10 mm | 186122 | QSL-G1/4-10 | 10 |
| | | | | 132053 | QSL-G1/4-10-50 | 50 |
| 12 mm | 186351 | QSL-G1/4-12 | 10 | | | |
| | 132054 | QSL-G1/4-12-20 | 20 | | | |
| Push-in fitting, angled, long | | | | | | |
|  | With external hex | Connecting thread G1/8 for tubing O.D. | 4 mm | 186127 | QSL-G1/8-4 | 10 |
| | | | | 133015 | QSL-G1/8-4-100 | 100 |
| | | | 6 mm | 186128 | QSL-G1/8-6 | 10 |
| | | | | 133016 | QSL-G1/8-6-100 | 100 |
| | | | 8 mm | 186130 | QSL-G1/8-8 | 10 |
| | | | | 133017 | QSL-G1/8-8-100 | 100 |
| Silencer | | | | | | |
|  | Polymer design | With connecting thread | G1/8 | 2307 | U-1/8 | 1 |
| | | | | 534222 | U-1/8-50 | 50 |
| | | | G1/4 | 2316 | U-1/4 | 1 |
| | | | | 534223 | U-1/4-20 | 20 |
|  | Metal design | With connecting thread | G1/8 | 6841 | U-1/8-B | 1 |
| | | | G1/4 | 6842 | U-1/4-B | 1 |

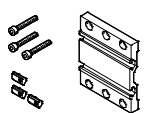
1) Packaging unit

Mechanically actuated valves VMEF

Accessories

| Ordering data – NPT thread | | | | | | |
|---|-------------------|---|----------|---------------|-------------------------------|------------------|
| | Description | | Part No. | Type | | PU ¹⁾ |
| Push-in fitting, straight | | | | | | |
|  | With internal hex | Connecting thread 10-32 UNF for tubing O.D. | 5/32" | 572312 | QBM-10-32-UNF-5/32-I-U | 10 |
| | | Connecting thread 1/8 NPT for tubing O.D. | 5/32" | 572317 | QB-1/8-5/32-I-U | 10 |
| | | | 1/4" | 572318 | QB-1/8-1/4-I-U | 10 |
| | | | 5/16" | 572319 | QB-1/8-5/16-I-U | 10 |
| | | Connecting thread 1/4 NPT for tubing O.D. | 5/16" | 572321 | QB-1/4-5/16-I-U | 10 |
| | | | 3/8" | 572322 | QB-1/4-3/8-I-U | 10 |
| | | | 1/2" | 567771 | QB-1/4-1/2-U | 10 |
| Push-in fitting, angled | | | | | | |
|  | With external hex | Connecting thread 1/8 NPT for tubing O.D. | 5/32" | 533290 | QBL-1/8-5/32-U | 10 |
| | | | 1/4" | 533292 | QBL-1/8-1/4-U | 10 |
| | | | 5/16" | 533293 | QBL-1/8-5/16-U | 10 |
| | | Connecting thread 1/4 NPT for tubing O.D. | 5/16" | 533296 | QBL-1/4-5/16-U | 10 |
| | | | 3/8" | 533297 | QBL-1/4-3/8-U | 5 |
| | | | 1/2" | 567775 | QBL-1/4-1/2-U | 5 |
| Push-in fitting, angled, long | | | | | | |
|  | With external hex | Connecting thread 1/8 NPT for tubing O.D. | 5/32" | 564668 | QBLL-1/8-5/32-U | 10 |
| | | | 1/4" | 564670 | QBLL-1/8-1/4-U | 10 |
| | | | 5/16" | 564671 | QBLL-1/8-5/16-U | 10 |
| Silencer | | | | | | |
|  | Metal design | With connecting thread | 1/8 NPT | 12638 | U-1/8-B-NPT | 1 |
| | | | 1/4 NPT | 12639 | U-1/4-B-NPT | 1 |

1) Packaging unit

| Ordering data | | | | | | |
|---|---|--|----------------|----------------------|--|------------------|
| | Description | | Part No. | Type | | PU ¹⁾ |
| Mounting kit for switching point adjustment | | | | | | |
|  | Mounting kit set for valves VMEF comprising: 1x mounting plate 60 x 70 mm 3x socket head cap screws to ISO 4762 M4x25 8.8 3x slot nuts | | 8060046 | VAME-R4-20-PA | | 1 |
| | | | | | | |

1) Packaging unit