

Standard valves to ISO 15218

FESTO



Product range overview

| Function | Electrical connection | | Voltage | Manual override | → Page/Internet | |
|---------------------------------|-------------------------------|-------------------------|-------------------------|-------------------------|-----------------|---|
| Pilot valve to ISO 15218 | Width 15 mm | | | | | |
| | Plug type C, to EN 175301-803 | – | 12 V DC | Non-detenting | 4 | |
| | | | | Non-detenting/detenting | 4 | |
| | | | 24 V DC | Non-detenting | 4 | |
| | | | | Non-detenting/detenting | 4 | |
| | | | 24 V AC | Non-detenting | 4 | |
| | | Non-detenting/detenting | | 4 | | |
| | | With PE conductor | | 110 V AC | Non-detenting | 4 |
| | | | Non-detenting/detenting | 4 | | |
| | | 230 V AC | Non-detenting | 4 | | |
| | | | Non-detenting/detenting | 4 | | |
| | M12 plug to IEC 61076-2-101 | – | 24 V DC | Non-detenting | 8 | |
| | | | | Non-detenting/detenting | 8 | |
| | Width 30 mm | | | | | |
| | Plug type A, to EN 175301-803 | – | 24 V DC/42 V AC | Non-detenting | 11 | |
| Non-detenting | | | | 11 | | |
| 110 V AC | | | Non-detenting | 11 | | |
| | | | 230 V AC | Non-detenting | 11 | |

Type codes

| | | |
|------|------------------------------------|--|
| 001 | Series | |
| VSCS | Standards-based valve to ISO 15218 | |

| | | |
|-----|--------------------------------|--|
| 002 | Directional control valve type | |
| B | Sub-base valve | |

| | | |
|-----|------------------------|--|
| 003 | Valve function | |
| M32 | 3/2-way solenoid valve | |

| | | |
|-----|--|--|
| 004 | Reset method for monostable/single solenoid valves | |
| M | Mechanical spring | |

| | | |
|-----|--------------------------|--|
| 005 | Manual override | |
| D | Non-detenting, detenting | |
| H | Non-detenting | |

| | | |
|-----|------------------------|--|
| 006 | Pneumatic connection | |
| WA | CNOMO interface, small | |

| | | |
|-----|---------------------------|--|
| 007 | Nominal operating voltage | |
| 1 | 24 V DC | |
| 1A | 24 V AC/50-60 Hz | |
| 2A | 110 V AC/50-60 Hz | |
| 3A | 230 V AC/50-60 Hz | |
| 5 | 12 V DC | |

| | | |
|-----|---------------------------------------|--|
| 008 | Electrical connection | |
| C1 | Plug pattern type C, to EN 175301-803 | |

| | | |
|-----|----------------------|--|
| 009 | Pressure range [MPa] | |
| | 0 ... 1 | |
| 8 | 0.15 ... 0.8 | |

Data sheet

Standard valve with plug type C VSCS-B-M32-...C1

- Valve actuator for electrical actuation of valve bodies
- Pneumatic connection: to ISO 15218 (CNOMO)
- Electrical connection to EN 175301-803, type C



| General technical data | | | |
|------------------------------------|--|-------------|--|
| Operating pressure | 0.15 ... 0.8 MPa | 0 ... 1 MPa | |
| Electrical connection | Plug type C (without PE conductor), to EN 175301-803 | | |
| Valve function | 3/2-way single solenoid valve, normally closed | | |
| Sealing principle | Soft | | |
| Actuation type | Electrical | | |
| Reset method | Mechanical spring | | |
| Type of control | Direct | | |
| Flow direction | Non-reversible | | |
| Overlap | Negative overlap | | |
| Width [mm] | 15 | | |
| Mounting position | Any | | |
| Mounting | Screwed to valve body or sub-base (2x M3) | | |
| Standard nominal flow rate [l/min] | 13.5 | 18 | |
| Duty cycle [%] | 100 | | |
| Degree of protection to EN 60529 | IP65 (in combination with plug socket) | | |
| Conforms to standard | ISO 15218 | | |

| Characteristic coil data – Operating pressure 0.15 ... 0.8 MPa | | | | | | |
|--|----------|---------|---------|---------|----------|----------|
| Operating voltage | | 12 V DC | 24 V DC | 24 V AC | 110 V AC | 230 V AC |
| Frequency [Hz] | | – | – | 50/60 | 50/60 | 50/60 |
| Power [W] | | 1.3 | 1.3 | – | – | – |
| Pick-up power [VA] | | – | – | 2.1 | 2.0 | 1.9 |
| Holding power [VA] | | – | – | 1.6 | 1.5 | 1.3 |
| Switching time | On [ms] | 8 | 8 | 9 | 8 | 8 |
| | Off [ms] | 6 | 6 | 30 | 20 | 35 |
| Permissible voltage fluctuation [%] | | –10/+10 | –10/+10 | –10/+10 | –10/+10 | –10/+10 |

| Characteristic coil data – Operating pressure 0 ... 1 MPa | | | | | | |
|---|----------|---------|---------|---------|----------|----------|
| Operating voltage | | 12 V DC | 24 V DC | 24 V AC | 110 V AC | 230 V AC |
| Frequency [Hz] | | – | – | 50/60 | 50/60 | 50/60 |
| Power [W] | | 1.8 | 1.8 | – | – | – |
| Pick-up power [VA] | | – | – | 3.1 | 2.9 | 2.9 |
| Holding power [VA] | | – | – | 2.3 | 2.1 | 2.1 |
| Switching time | On [ms] | 6 | 6 | 6 | 6 | 6 |
| | Off [ms] | 6 | 6 | 6 | 6 | 6 |
| Permissible voltage fluctuation [%] | | –15/+10 | –15/+10 | –15/+10 | –15/+10 | –15/+10 |

| Materials | |
|-------------------|----------------|
| Seals | NBR |
| Note on materials | RoHS-compliant |

Data sheet

| Safety data – Operating pressure 0.15 ... 0.8 MPa | | | | | |
|---|--|---------|---------|----------|----------|
| Operating voltage | 12 V DC | 24 V DC | 24 V AC | 110 V AC | 230 V AC |
| Note on forced checking procedure | Switching frequency min. 1/week | | | | |
| Shock resistance | Shock test with severity level 1 to FN 942017-5 and EN 60068-2-27 | | | | |
| Vibration resistance | Transport application test with severity level 1 to FN 942017-4 and EN 60068-2-6 | | | | |

| Safety data – Operating pressure 0 ... 1 MPa | | | | | |
|--|--|---------|---------|----------|----------|
| Operating voltage | 12 V DC | 24 V DC | 24 V AC | 110 V AC | 230 V AC |
| Note on forced checking procedure | Switching frequency min. 1/week | | | | |
| Maximum positive test pulse with 0 signal [μs] | – | 1800 | – | – | – |
| Maximum negative test pulse with 1 signal [μs] | – | 800 | – | – | – |
| Shock resistance | Shock test with severity level 2 to FN 942017-5 and EN 60068-2-27 | | | | |
| Vibration resistance | Transport application test with severity level 2 to FN 942017-4 and EN 60068-2-6 | | | | |

| Operating and environmental conditions – Operating pressure 0.15 ... 0.8 MPa | | | | | |
|--|--|---------------|---------|--|----------|
| Operating voltage | 12 V DC | 24 V DC | 24 V AC | 110 V AC | 230 V AC |
| Operating medium | Compressed air to ISO 8573-1:2010 [7:4:4] | | | | |
| Note on the operating/pilot medium | Lubricated operation possible (in which case lubricated operation will always be required) | | | | |
| Operating pressure | [bar] | 1.5 ... 8 | | | |
| | [psi] | 21.75 ... 116 | | | |
| Ambient temperature [°C] | –5 ... +50 | | | | |
| Temperature of medium [°C] | –5 ... +50 | | | | |
| Corrosion resistance class CRC ¹⁾ | 2 | | | | |
| CE marking (see declaration of conformity) ²⁾ | – | | | To EU Low Voltage Directive | |
| UKCA marking (see declaration of conformity) ²⁾ | – | | | To UK regulations for electrical equipment | |

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

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

2) Additional information: www.festo.com/catalogue/... → Support/Downloads.

| Operating and environmental conditions – Operating pressure 0 ... 1 MPa | | | | | | | | | | | |
|---|--|-------------------------|---------------------------|-------------------------|---------------|-------------------------|--|-------------------------|---------------|-------------------------|--|
| Operating voltage | 12 V DC | | 24 V DC | | 24 V AC | | 110 V AC | | 230 V AC | | |
| Manual override | non-detending | non-detending/detenting | non-detending | non-detending/detenting | non-detending | non-detending/detenting | non-detending | non-detending/detenting | non-detending | non-detending/detenting | |
| Operating medium | Compressed air to ISO 8573-1:2010 [7:4:4] | | | | | | | | | | |
| Note on the operating/pilot medium | Lubricated operation possible (in which case lubricated operation will always be required) | | | | | | | | | | |
| Operating pressure | [bar] | 0 ... 10 | | | | | | | | | |
| | [psi] | 0 ... 145 | | | | | | | – | 0 ... 145 | |
| Ambient temperature [°C] | –10 ... +50 | | | | | | | | | | |
| Temperature of medium [°C] | –10 ... +50 | | | | | | | | | | |
| Corrosion resistance class CRC ¹⁾ | 2 | | | | | | | | | | |
| CE marking (see declaration of conformity) ²⁾ | – | | | | | | To EU Low Voltage Directive | | | | |
| UKCA marking (see declaration of conformity) ²⁾ | – | | | | | | To UK regulations for electrical equipment | | | | |
| Certification | – | | c UL us - Recognized (OL) | | – | | – | | | | |

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

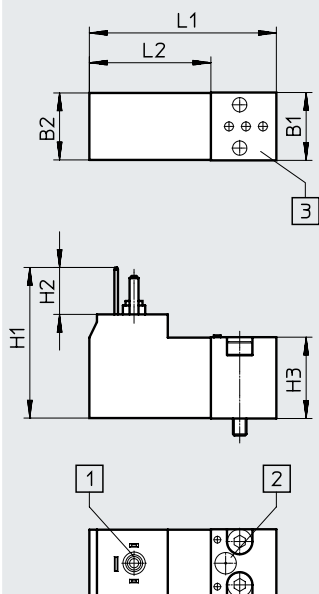
Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.

2) Additional information: www.festo.com/catalogue/... → Support/Downloads.

Data sheet

Dimensions

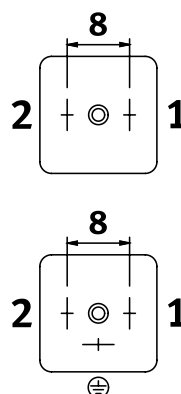
VSCS-...C1



- [1] Plug type C, to EN 175301-803
- [2] Manual override
- [3] Pneumatic port pattern to ISO 15218

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Electrical connection



Operating voltage:

- 12 V DC
- 24 V DC
- 24 V AC

Operating voltage:

- 110 V AC
- 230 V AC

| Type | B1 | B2 | H1 | H2 | H3 | L1 | L2 |
|------------|------|----|------|------|------|------|------|
| VSCS-...C1 | 15.2 | 15 | 33.7 | 10.5 | 18.2 | 41.9 | 14.7 |

Ordering data

| | Operating voltage | Manual override | PWIS conformity | Part no. | Type |
|--|-------------------------|-------------------------|-----------------|--------------------------------|--------------------------------|
| Operating pressure 0.15 ... 0.8 MPa | | | | | |
| | 12 V DC | Non-detenting | VDMA24364-C1-L | 8040565 | VSCS-B-M32-MH-WA-5C1-8 |
| | | Non-detenting/detenting | VDMA24364-C1-L | 8040571 | VSCS-B-M32-MD-WA-5C1-8 |
| | 24 V DC | Non-detenting | VDMA24364-C1-L | 8040564 | VSCS-B-M32-MH-WA-1C1-8 |
| | | Non-detenting/detenting | VDMA24364-C1-L | 8040570 | VSCS-B-M32-MD-WA-1C1-8 |
| | 24 V AC | Non-detenting | VDMA24364-C1-L | 8040566 | VSCS-B-M32-MH-WA-1AC1-8 |
| | | Non-detenting/detenting | VDMA24364-C1-L | 8040572 | VSCS-B-M32-MD-WA-1AC1-8 |
| | 110 V AC | Non-detenting | VDMA24364-C1-L | 8040567 | VSCS-B-M32-MH-WA-2AC1-8 |
| | | Non-detenting/detenting | VDMA24364-C1-L | 8040573 | VSCS-B-M32-MD-WA-2AC1-8 |
| 230 V AC | Non-detenting | VDMA24364-C1-L | 8040568 | VSCS-B-M32-MH-WA-3AC1-8 | |
| | Non-detenting/detenting | VDMA24364-C1-L | 8040574 | VSCS-B-M32-MD-WA-3AC1-8 | |
| Operating pressure 0 ... 1 MPa | | | | | |
| | 12 V DC | Non-detenting | VDMA24364-C1-L | 546257 | VSCS-B-M32-MH-WA-5C1 |
| | | Non-detenting/detenting | VDMA24364-C1-L | 571062 | VSCS-B-M32-MD-WA-5C1 |
| | 24 V DC | Non-detenting | VDMA24364-C1-L | 546256 | VSCS-B-M32-MH-WA-1C1 |
| | | Non-detenting/detenting | VDMA24364-C1-L | 571061 | VSCS-B-M32-MD-WA-1C1 |
| | 24 V AC | Non-detenting | VDMA24364-C1-L | 546258 | VSCS-B-M32-MH-WA-1AC1 |
| | | Non-detenting/detenting | VDMA24364-C1-L | 571063 | VSCS-B-M32-MD-WA-1AC1 |
| | 110 V AC | Non-detenting | - | 546259 | VSCS-B-M32-MH-WA-2AC1 |
| | | Non-detenting/detenting | VDMA24364-C1-L | 571064 | VSCS-B-M32-MD-WA-2AC1 |
| 230 V AC | Non-detenting | VDMA24364-C1-L | 546260 | VSCS-B-M32-MH-WA-3AC1 | |
| | Non-detenting/detenting | VDMA24364-C1-L | 571065 | VSCS-B-M32-MD-WA-3AC1 | |

Type codes

| | | |
|-------------|--|--|
| 001 | Series | |
| VSCS | Standards-based valve to ISO 15218 | |
| 002 | Directional control valve type | |
| B | Sub-base valve | |
| 003 | Valve function | |
| M32 | 3/2-way solenoid valve | |
| 004 | Reset method for monostable/single solenoid valves | |
| M | Mechanical spring | |
| 005 | Manual override | |
| D | Non-detenting, detenting | |
| H | Non-detenting | |

| | | |
|-----------|--|--|
| 006 | Pneumatic connection | |
| WA | CNOMO interface, small | |
| 007 | Nominal operating voltage | |
| 1 | 24 V DC | |
| 008 | Electrical connection | |
| R3 | Individual plug M12, to EN 61076-2-101 | |
| 009 | Pressure range [MPa] | |
| | 0 ... 1 | |
| 8 | 0.15 ... 0.8 | |

Data sheet

Standard valve with round plug VSCS-B-M32 ... 1R3

- Valve actuator for electrical actuation of valve bodies
- Pneumatic connection: to ISO 15218 (CNOMO)
- Electrical connection M12x1 to IEC 61076-2-101



| General technical data | | |
|------------------------------------|--|-------------|
| Operating pressure | 0.15 ... 0.8 MPa | 0 ... 1 MPa |
| Electrical connection | Plug M12x1, to IEC 61076-2-101 | |
| Valve function | 3/2-way single solenoid valve, normally closed | |
| Sealing principle | Soft | |
| Actuation type | Electrical | |
| Reset method | Mechanical spring | |
| Type of control | Direct | |
| Flow direction | Non-reversible | |
| Overlap | Negative overlap | |
| Width [mm] | 15 | |
| Mounting position | Any | |
| Mounting | Screwed to valve body or sub-base (2x M3) | |
| Standard nominal flow rate [l/min] | 13.5 | 18 |
| Duty cycle [%] | 100 | |
| Degree of protection to EN 60529 | IP65 (in combination with plug socket) | |
| Conforms to standard | ISO 15218 | |

| Characteristic coil data | | |
|-------------------------------------|------------------|-------------|
| Operating pressure | 0.15 ... 0.8 MPa | 0 ... 1 MPa |
| Operating voltage [V DC] | 24 | 24 |
| Power [W] | 1.3 | 1.8 |
| Switching time On [ms] | 8 | 6 |
| Switching time Off [ms] | 6 | 6 |
| Permissible voltage fluctuation [%] | -10/+10 | -15/+10 |

| Materials | |
|-------------------|----------------|
| Seals | NBR |
| Note on materials | RoHS-compliant |
| PWIS conformity | VDMA24364-C1-L |

| Safety characteristics | | |
|---|--|--|
| Operating pressure | 0.15 ... 0.8 MPa | 0 ... 1 MPa |
| Note on forced checking procedure | Switching frequency min. 1/week | Switching frequency min. 1/week |
| Max. positive test pulse with 0 signal [μs] | - | 1800 |
| Max. negative test pulse with 1 signal [μs] | - | 800 |
| Shock resistance | Shock test with severity level 1 to FN 942017-5 and EN 60068-2-27 | Shock test with severity level 2 to FN 942017-5 and EN 60068-2-27 |
| Vibration resistance | Transport application test with severity level 1 to FN 942017-4 and EN 60068-2-6 | Transport application test with severity level 2 to FN 942017-4 and EN 60068-2-6 |

Data sheet

| Operating and environmental conditions | | |
|--|--|---------------|
| Operating pressure | 0.15 ... 0.8 MPa | 0 ... 1 MPa |
| Operating medium | Compressed air to ISO 8573-1:2010 [7:4:4] | |
| Note on the operating/pilot medium | Lubricated operation possible (in which case lubricated operation will always be required) | |
| Operating pressure | [bar] | 1.5 ... 8 |
| | [psi] | 21.75 ... 116 |
| Ambient temperature | [°C] | -5 ... +50 |
| Temperature of medium | [°C] | -5 ... +50 |
| Corrosion resistance class CRC ¹⁾ | 2 | |
| Certification | c UL us - Recognized (OL) | |

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

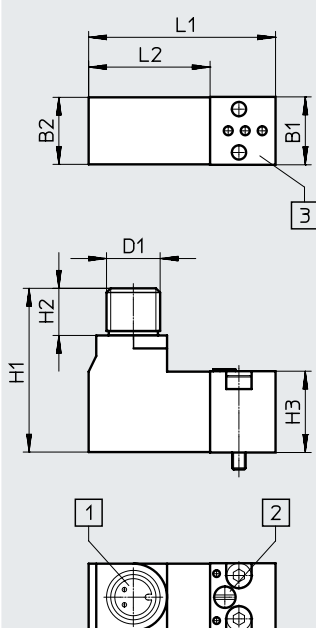
Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.

Dimensions

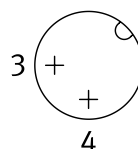
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VSCS-...1R3

Electrical connection

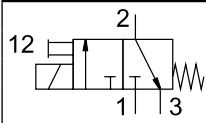


- [1] Plug M12x1, to IEC 61076-2-101
- [2] Manual override
- [3] Pneumatic port pattern to ISO 15218



| Type | B1 | B2 | D1 | H1 | H2 | H3 | L1 | L2 |
|-------------|------|----|-----|------|------|------|------|------|
| VSCS-...1R3 | 15.2 | 15 | M12 | 36.7 | 10.6 | 18.2 | 41.9 | 27.2 |

Ordering data

|  | Operating pressure | Manual override | Part no. | Type |
|---|--------------------|-------------------------|----------------|-------------------------------|
| | 0.15 ... 0.8 MPa | Non-detenting | Non-detenting | 8040569 |
| Non-detenting/detenting | | | 8040575 | VSCS-B-M32-MD-WA-1R3-8 |
| 0 ... 1 MPa | Non-detenting | Non-detenting | 573214 | VSCS-B-M32-MH-WA-1R3 |
| | | Non-detenting/detenting | 573215 | VSCS-B-M32-MD-WA-1R3 |

Type codes

| 001 | Series |
|------------|---|
| MDH | Standards-based directional control valve |

| 002 | Valve function |
|------------|----------------|
| 3/2 | 3/2-way valve |

| 003 | Nominal operating voltage |
|---------------|---------------------------|
| | 24 V DC, 42 V AC 50/60 Hz |
| 24DC | 24 V DC, 48 V AC 50/60 Hz |
| 110VAC | 110 V AC, 50/60 Hz |
| 230VAC | 230 V AC, 50/60 Hz |

Data sheet

**Standard valve with plug type A
MDH-3/2 ...**

- Valve actuator for electrical actuation of valve bodies
- Pneumatic connection: to ISO 15218 (CNOMO)
- Electrical connection, plug type A, to EN 175301-803



| General technical data | |
|------------------------------------|--|
| Electrical connection | Plug type A, to EN 175301-803 |
| Valve function | 3/2-way single solenoid valve, normally closed |
| Sealing principle | Soft-sealing |
| Actuation type | Electrical |
| Reset method | Mechanical spring |
| Design | Poppet valve |
| Type of control | Direct |
| Flow direction | Non-reversible |
| Overlap | Negative overlap |
| Width [mm] | 30 |
| Mounting position | Any |
| Mounting | Screwed to basic valve body or sub-base |
| Manual override | Non-detenting |
| Standard nominal flow rate [l/min] | 50 |
| Duty cycle [%] | 100 |
| Degree of protection to EN 60529 | IP65 (in combination with plug socket) |
| Conforms to standard | ISO 15218 |
| Weight [g] | 140 |

| Characteristic coil data | | 42 V AC | 48 V AC | 110 V AC | 230 V AC |
|-----------------------------------|--------|---------|---------|----------|----------|
| Operating voltage | [V AC] | 42 | 48 | 110 | 230 |
| | [V DC] | 24 | 24 | – | – |
| | [Hz] | 50/60 | 50/60 | 50/60 | 50/60 |
| Power | [W] | 8.4 | 6 | – | – |
| Pick-up power | [VA] | 11.5 | 14.5 | 12 | 12 |
| Holding power | [VA] | 8.5 | 9.9 | 8 | 8 |
| Switching time on/off | [ms] | 11/9 | 11/9 | 11/9 | 11/9 |
| Permissible voltage fluctuation | [%] | –10/+10 | –10/+10 | –10/+10 | –10/+10 |
| Permissible frequency fluctuation | [%] | –10/+10 | – | –10/+10 | –10/+10 |

| Materials | |
|-------------------|----------------|
| Seals | FPM |
| Note on materials | RoHS-compliant |

Data sheet

| Operating and environmental conditions | | 42 V AC | 48 V AC | 110 V AC | 230 V AC |
|--|--|----------------|---------|-----------------------------|----------|
| Operating voltage | | | | | |
| Operating medium | Compressed air to ISO 8573-1:2010 [7:4:4] | | | | |
| Note on the operating/pilot medium | Lubricated operation possible (in which case lubricated operation will always be required) | | | | |
| Operating pressure | [MPa] | 0.1 ... 1.6 | | | |
| | [bar] | 1 ... 16 | | | |
| | [psi] | 14.5 ... 232 | | | |
| Ambient temperature | [°C] | -10 ... +50 | | -15 ... +50 | |
| Temperature of medium | [°C] | -15 ... +80 | | -15 ... +80 | |
| Corrosion resistance class CRC ¹⁾ | | 2 | | | |
| CE marking (see declaration of conformity) ²⁾ | | - | | To EU Low Voltage Directive | |
| PWIS conformity | | VDMA24364-B2-L | | VDMA24364-B2-L | |

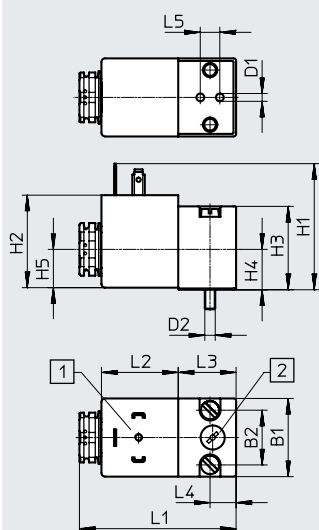
1) Corrosion resistance class CRC 2 to Festo standard FN 940070

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

2) Additional information: www.festo.com/catalogue/... → Support/Downloads.

Dimensions

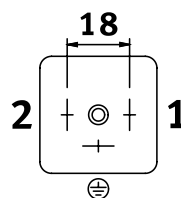
MDH-3/2 ...



- [1] Plug type A, to EN 175301-803
- [2] Manual override

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Electrical connection



| Type | B1 | B2 | D1 | D2 | H1 | H2 | H3 | H4 | H5 | L1 | L2 | L3 | L4 | L5 |
|-------------|----|----|----|----|------|------|----|------|------|------|------|----|----|-----|
| MDH-3/2 ... | 30 | 21 | 3 | M4 | 48.4 | 35.5 | 32 | 15.5 | 14.7 | 60.7 | 29.5 | 22 | 10 | 7.5 |

Ordering data

| | Operating voltage | | Part no. | Type |
|----------|-------------------|---------------|-----------------------|----------------------------|
| | 24 V DC | 42 V AC | 119603 | MDH-3/2-24VDC/42VAC |
| | | 48 V AC | 119600 | MDH-3/2-24DC |
| | 110 V AC | | 119601 | MDH-3/2-110VAC |
| 230 V AC | | 119602 | MDH-3/2-230VAC | |