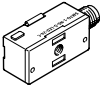
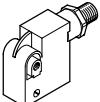
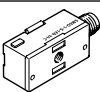
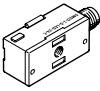
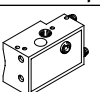
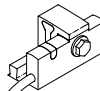


Proximity switches, block design

FESTO



Product range overview

| Measuring principle | Design | Type | Mounting | Switching element function | | Switching output | Electrical connection | |
|---|---|----------|------------------|----------------------------|-------------|------------------|-----------------------|-----------------------------|
| | | | | N/O | N/C contact | | Cable | Plug |
| Magneto-inductive | Operating voltage range 10 ... 30 V DC | | | | | | | |
| |  | SMT0-1 | With accessories | ■ | – | PNP | 3-wire | M8x1, 3-pin |
| | | | | ■ | – | NPN | 3-wire | M8x1, 3-pin |
|  | SMTS0-1 Welding field resistant | | ■ | – | PNP | – | M12x1, 3-pin | |
| Magnetic reed | Operating voltage range 0 ... 30 V DC | | | | | | | |
| |  | SME0-1 | With accessories | ■ | – | Contacting | – | M8x1, 3-pin ¹⁾ |
| | | | | ■ | – | | 3-wire | M8x1, 3-pin |
| | Operating voltage range 0 ... 250 V AC, 0 ... 200 V DC | | | | | | | |
| |  | SME0-1-B | With accessories | ■ | – | Contacting | 2-wire | – |
| | | SME0-1 | | ■ | – | | 2-wire | – |
| | | | | ■ | – | | 2-wire | – |
| SME0-1-S6-C Heat resistant up to 120°C | | ■ | | – | 2-wire | | – | |
| Magnetic | Pneumatic proximity switch, operating pressure 2 ... 6 bar | | | | | | | |
| |  | SMPO-1 | With accessories | ■ ²⁾ | – | – | – | – |
| Magneto-inductive | Operating voltage range 10 ... 30 V DC | | | | | | | |
| |  | SMT-C1 | Clamped | ■ | – | PNP | 3-wire | M8x1, 3-pin M12x1, 3-pin |

1) The proximity switch has 2 wires internally. One pin of the M8 plug is unused.
 2) 3/2-way valve, normally closed

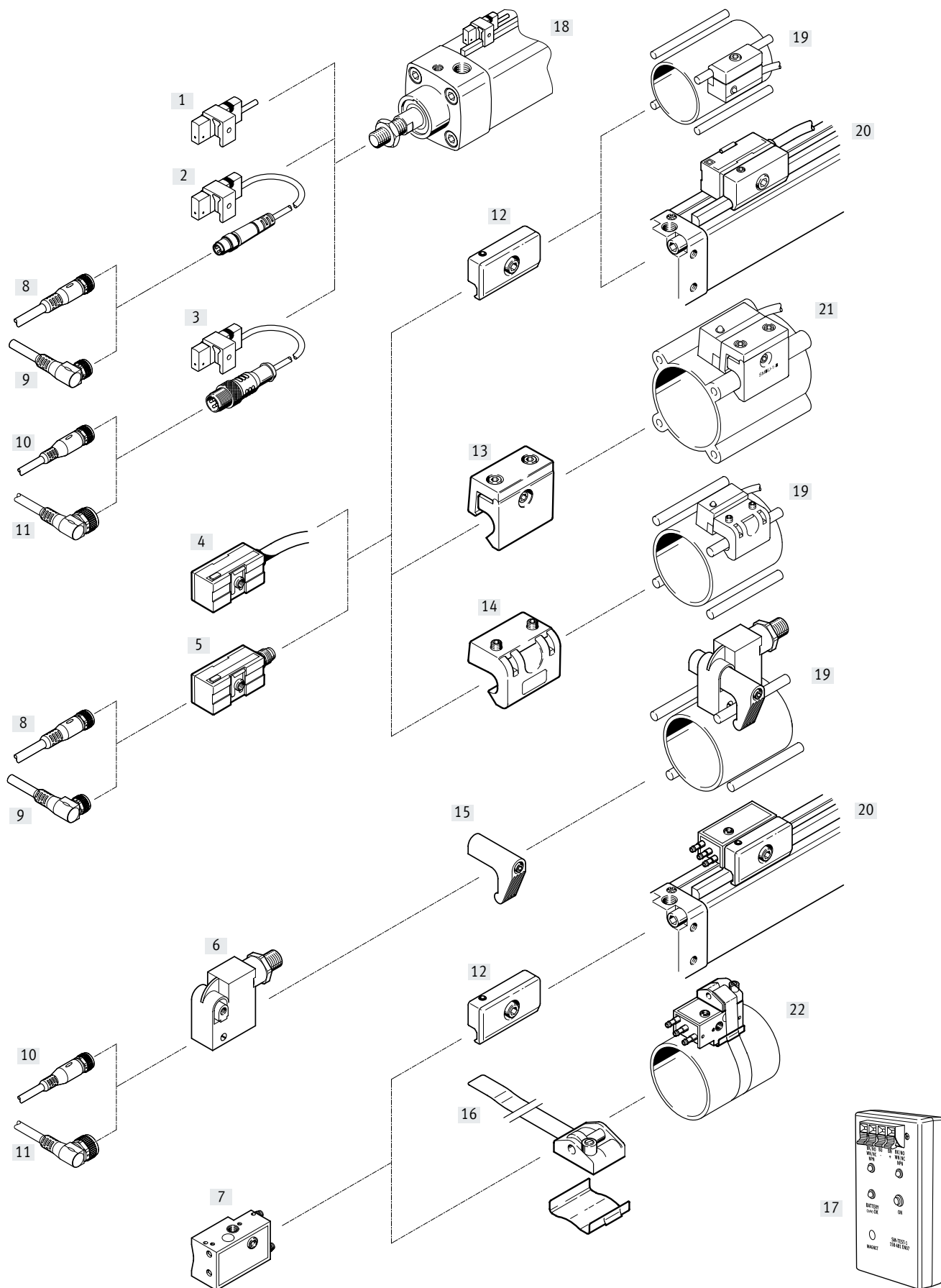
Product range overview

| Type | Outlet direction of connection | | Replacement without adjustment | Switching status indication via LED | Free of copper and PTFE | → Page |
|---|--------------------------------|---------|--------------------------------|-------------------------------------|-------------------------|--------|
| | In-line | Lateral | | | | |
| Operating voltage range 10 ... 30 V DC | | | | | | |
| SMTO-1 | ■ | – | ■ ¹⁾ | ■ | ■ | 7 |
| | ■ | – | ■ ¹⁾ | ■ | – | |
| SMTSO-1 Welding field resistant | ■ | – | – | ■ | – | 10 |
| Operating voltage range 0 ... 30 V DC | | | | | | |
| SMEO-1 | ■ | – | ■ ¹⁾ | – | ■ | 12 |
| | ■ | – | ■ ¹⁾ | ■ | ■ | |
| Operating voltage range 0 ... 250 V DC, 0 ... 200 V DC | | | | | | |
| SMEO-1-B | ■ | – | ■ ¹⁾ | – | – | 12 |
| SMEO-1 | ■ | – | ■ ¹⁾ | ■ | – | |
| | ■ | – | ■ ¹⁾ | – | – | |
| SMEO-1-S6-C Heat resistant up to 120°C | ■ | – | ■ ¹⁾ | ■ | – | |
| Pneumatic proximity switch, operating pressure 2 ... 6 bar | | | | | | |
| SMPO-1 | ■ | – | ■ ¹⁾ | – ²⁾ | – | 17 |
| Operating voltage range 10 ... 30 V DC | | | | | | |
| SMT-C1 | ■ | – | – | ■ | ■ | 19 |

1) Not in combination with mounting kit SMB-1 or SMBS-...

2) Switching status is indicated via a plunger

Peripherals overview



Peripherals overview

| Mounting attachments and accessories | | Brief description | → Page/Internet |
|--------------------------------------|---|--|-----------------|
| Proximity switch | | | |
| [1] | SMT-C1-... | Magneto-inductive, with cable and clamping element | 19 |
| [2] | SMT-C1-... | Magneto-inductive, with cable and plug M8x1 and clamping element | 19 |
| [3] | SMT-C1-... | Magneto-inductive, with cable and plug M12x1 and clamping element | 19 |
| [4] | SMT-O-1-... | Magneto-resistive, with cable | 7 |
| | SMEO-1-... | Magnetic reed, with cable | 12 |
| [5] | SMT-O-1-... | Magneto-resistive, with plug M8x1 | 7 |
| | SMEO-1-... | Magnetic reed, with plug M8x1 | 12 |
| [6] | SMTSO-1-... | Magneto-resistive, welding field resistant, with plug M12x1 | 10 |
| [7] | SMPO-1-... | Pneumatic | 17 |
| Accessories | | | |
| [8] | Connecting cable NEBU-M8G3-... | Straight socket, M8x1, 3-pin | 24 |
| [9] | Connecting cable NEBU-M8W3-... | Angled socket, M8x1, 3-pin | |
| [10] | Connecting cable NEBU-M12G5-... | Straight socket, M12x1, 3-pin | |
| [11] | Connecting cable NEBU-M12W5-... | Angled socket, M12x1, 3-pin | |
| [12] | Mounting kit SMB-1 | For drives with tie rod \varnothing 6 mm or mounting strip For standards-based cylinders DSBG | 22 |
| [13] | Mounting kit SMBU-1-B | For standards-based cylinders DNU | 22 |
| [14] | Mounting kits SMB-2-B, SMB-3-B | For standards-based cylinders DSBG | 22 |
| [15] | Mounting kit SMBT-1 | For standards-based cylinders DSBG | 23 |
| [16] | Mounting kit SMBS-... | For round cylinders | 23 |
| [17] | Sensor tester SM-TEST-1 | - | sm-test-1 |
| Drives | | | |
| [18] | Standards-based cylinder DSBF-C or CDN-...-R with sensor rail | \varnothing 32 ... 100 mm | - |
| [19] | Standards-based cylinder DSBG | \varnothing 32 ... 125 mm | - |
| [20] | Flat cylinder DZH | \varnothing 32 ... 63 mm | - |
| | Semi-rotary drive DRQ | \varnothing 40 ... 100 mm | |
| [21] | Standards-based cylinder DNU | \varnothing 32 ... 125 mm | - |
| [22] | Round cylinder | \varnothing 8 ... 100 mm | - |

Type codes

| | | |
|---------------|---|--|
| 001 | Series | |
| SMT0-1 | Proximity switch, block design, magneto-resistive | |
| 002 | Switching output, switching element function | |
| PS | PNP, N/O contact, 3-wire | |
| NS | NPN, N/O contact, 3-wire | |
| 003 | Electrical connection, cable length | |
| K | Cable, 2.5 m | |
| S | Plug M8x1 | |

| | | |
|----------------|--|--|
| 001 | Series | |
| SMTS0-1 | Proximity switch, block design, magneto-resistive, welding field resistant | |

| | | |
|-----------|--|--|
| 002 | Switching output, switching element function | |
| PS | PNP, N/O contact, 3-wire | |

| | | |
|---------------|--|--|
| 001 | Series | |
| SME0-1 | Proximity switch, block design, magnetic, reed | |

| | | |
|-----------|----------------------------------|--|
| 002 | Temperature range | |
| S6 | Heat-resistant seals max. 120 °C | |

| | | |
|-----------|-------------------------------------|--|
| 003 | Electrical connection, cable length | |
| S | Plug M8x1 with cable, 0.3 m | |
| K5 | Cable, 5.0 m | |

| | | |
|---------------|--|--|
| 001 | Series | |
| SMPO-1 | Proximity switch, block design, magnetic | |

| | | |
|----------|------------------------|--|
| 002 | Pneumatic connection | |
| H | Barbed connector, 3 mm | |

| | | |
|---------------|---|--|
| 001 | Series | |
| SMT-C1 | Proximity switch, block design, magneto-inductive | |

| | | |
|-----------|--|--|
| 002 | Switching output, switching element function | |
| PS | PNP, N/O contact, 3-wire | |

| | | |
|------------|-------------------------|--|
| 003 | Rated operating voltage | |
| 24V | 24 V | |

| | | |
|----------|---------|--|
| 004 | Version | |
| K | Cable | |

| | | |
|------------|-----------------------------|--|
| 004 | Switching status indication | |
| LED | Yellow LED | |

| | | |
|-----------|-------------------------|--|
| 005 | Rated operating voltage | |
| 24 | 24 V DC | |

| | | |
|----------|------------|--|
| 006 | Generation | |
| C | Series C | |

| | | |
|----------|-------------------------------------|--|
| 003 | Electrical connection, cable length | |
| S | Plug M8x1 | |

| | | |
|------------|-----------------------------|--|
| 004 | Switching status indication | |
| LED | Yellow LED | |

| | | |
|-----------|-------------------------|--|
| 005 | Rated operating voltage | |
| 24 | 24 V DC | |

| | | |
|------------|-----------------------------|--|
| 004 | Switching status indication | |
| | None | |
| LED | Yellow LED | |

| | | |
|------------|-------------------------|--|
| 005 | Rated operating voltage | |
| 24 | 24 V DC | |
| 230 | 230 V AC | |

| | | |
|----------|------------|--|
| 006 | Generation | |
| B | Series B | |
| C | Series C | |

| | | |
|----------|------------|--|
| 003 | Generation | |
| B | Series B | |

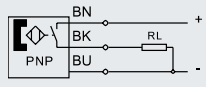
| | | |
|-------------|--------------|--|
| 005 | Cable length | |
| 0,3 | 0.3 m | |
| 5,0 | 5.0 m | |
| 10,0 | 10.0 m | |

| | | |
|------------|--|--|
| 006 | Electrical connection | |
| OE | Open end | |
| M8D | Cable with plug M8x1, rotatable thread | |
| M12 | Cable with plug M12x1 | |

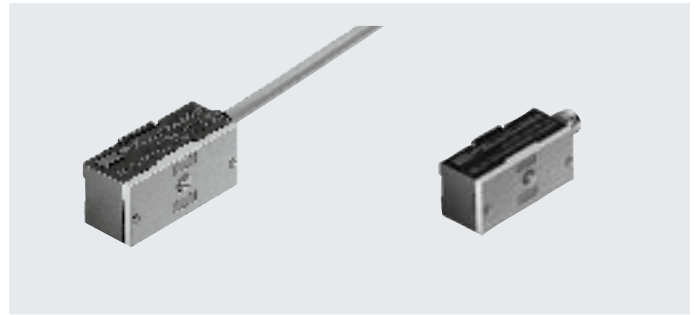
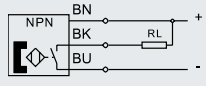
Data sheet

Function

e.g. PNP, N/O contact, with cable



e.g. NPN, N/O contact, with cable



Design

| | |
|---|------------------|
| Design | Block design |
| Type of mounting | With accessories |
| Max. tightening torque [Nm] | 0.3 |
| Outlet direction of connection | In-line |
| Switching status indication | Yellow LED |
| Reproducibility of switching value ¹⁾ [mm] | ±0.1 |

1) Only applicable to drives protected against rotation.

Technical data

| | SMTO-...-K-... | SMTO-...-S-... |
|--------------------------------|--------------------------------|----------------|
| Switching output | PNP NPN | |
| Switching element function | N/O | |
| Measured variable | Position | |
| Measuring principle | Magneto-inductive | |
| Operating voltage range [V DC] | 10 ... 30 | |
| Max. output current [mA] | 200 | |
| Max. switching capacity [W] | 6 | |
| Voltage drop [V] | ≤ 3 | |
| Residual current [mA] | ≤ 0.01 | |
| Switch-on time [ms] | ≤ 1 | |
| Switch-off time [ms] | ≤ 1 | |
| Short circuit current rating | Yes | Pulsed |
| Overload protection | Available | |
| Reverse polarity protection | For all electrical connections | |
| Cable characteristic | Standard | - |
| Inductive protective circuit | Adapted to MZ, MY, ME coils | |

Operating and environmental conditions

| Variant | SMTO-...-K-... | SMTO-...-S-... |
|---|---|----------------|
| Ambient temperature [°C] | -25 ... +70 | |
| Ambient temperature with flexible cable installation [°C] | -5 ... +70 | - |
| Certification | RCM | |
| Degree of protection | IP67 | |
| Based on standard | EN 60947-5-2 | |
| CE marking (see declaration of conformity) | To EU EMC Directive ¹⁾ To EU RoHS Directive | |
| UKCA marking (see declaration of conformity) | To UK instructions for EMC To UK RoHS instructions | |
| Note on materials | RoHS-compliant | |

1) For information about the area of use, see the EC declaration of conformity at: www.festo.com/catalogue/SMTO-1 → Support/Downloads.
If the devices are subject to usage restrictions in residential, commercial or light-industrial environments, further measures for the reduction of the emitted interference may be necessary.

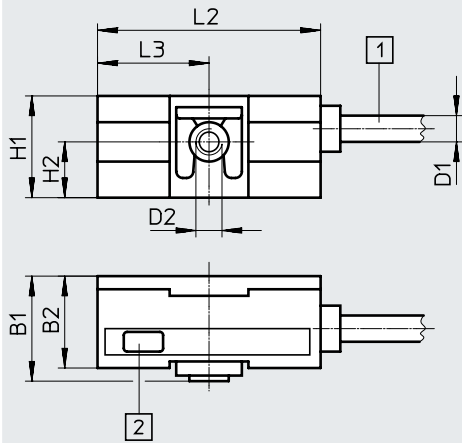
Data sheet

| Materials | | |
|-------------------|-------------------------|---|
| Variant | SMT0-...-K-... | SMT0-...-S-... |
| Housing | PET, die-cast zinc | PET, PC, POM, PUR, steel, die-cast zinc |
| Cable sheath | PVC | - |
| Note on materials | Free of copper and PTFE | |

Dimensions

Download CAD data → www.festo.com

SMT0-1 – Cable



- [1] Connecting cable
- [2] Yellow LED

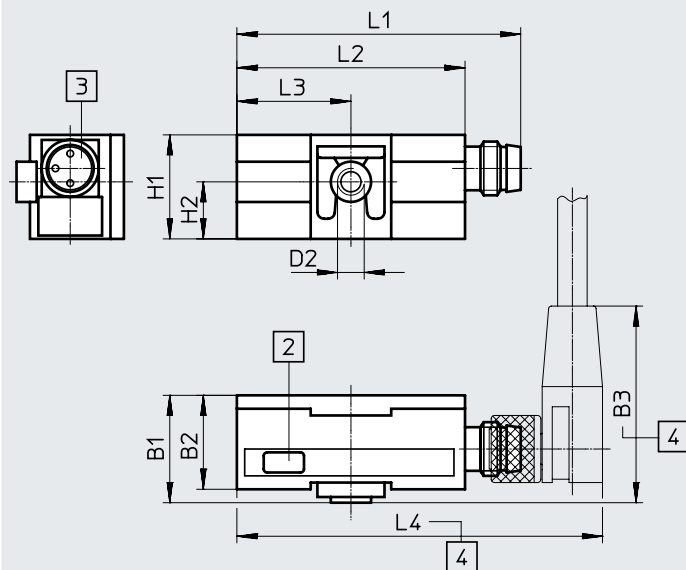
| | B1 | B2 | D1 ∅ | D2 | H1 | H2 | L2 | L3 |
|-------------------------|------|------|---------|----|------|------|------|------|
| | -0.2 | ±0.3 | -0.3 | | ±0.2 | ±0.1 | ±0.2 | -0.1 |
| SMT0-1- ... SK-LED-24-C | 16 | 14 | 4 | M4 | 15.5 | 8.5 | 34 | 17 |

Data sheet

Dimensions

Download CAD data → www.festo.com

SMT0-1-S – Plug M8x1



- [2] Yellow LED
- [3] Suitable for plug socket type SIM-M8
- [4] Installation space for angled plug socket 90°

| | B1 | B2 | B3 | D2 | H1 | H2 | L1 | L2 | L3 | L4 |
|-----------------------|------|------|-------|----|------|------|------|------|------|-------|
| | -0.2 | ±0.3 | | | ±0.2 | ±0.1 | ±0.3 | ±0.2 | -0.1 | |
| SMT0-1...S-S-LED-24-C | 16 | 14 | ~27.5 | M4 | 15.5 | 8.5 | 42.3 | 34 | 17 | ~54.5 |

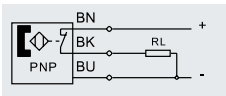
Ordering data

| | Switching output | Electrical connection | | Cable length [m] | Product weight [g] | Part no. | Type |
|---|------------------|-----------------------|-----------|---------------------|-----------------------|---------------|-----------------------------|
| | | Cable | Plug M8x1 | | | | |
| | N/O | | | | | | |
| | PNP | 3-wire | – | 2.5 | 85 | 151683 | SMT0-1-PS-K-LED-24-C |
| | | – | 3-pin | – | – | 20 | 151685 |
| | NPN | 3-wire | – | 2.5 | 85 | 151684 | SMT0-1-NS-K-LED-24-C |
| – | | 3-pin | – | – | 20 | 151686 | SMT0-1-NS-S-LED-24-C |

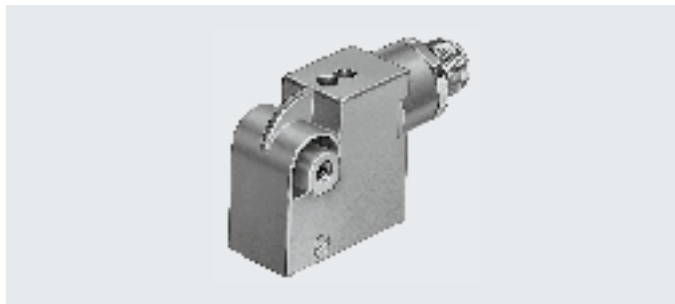
Data sheet

Function

PNP, N/O contact, with plug



- Welding field resistant
- Magneto-inductive measuring principle



| Design | |
|--|------------------|
| Design | Block design |
| Type of mounting | With accessories |
| Tightening torque | [Nm] < 0.3 |
| Outlet direction of connection | In-line |
| Switching status indication | Yellow LED |
| Ready status indication | Green LED |
| Reproducibility of switching value ¹⁾ | [mm] ±0.1 |

1) Only applicable to drives protected against rotation.

| Technical data – PNP, N/O contact | |
|---|---|
| Switching output | PNP |
| Switching element function | N/O |
| Measured variable | Position |
| Measuring principle | Magneto-inductive |
| Based on standard | EN 60947-5-2 |
| Electrical connection | Plug M12x1, 3-pin |
| Operating voltage range | [V DC] 10 ... 30 |
| Max. output current | [mA] 200 |
| Max. switching capacity DC | [W] 6 |
| Voltage drop | [V] 3 |
| Residual current | [mA] 0.01 |
| Switch-on time | [ms] ≤35 |
| Switch-off time | [ms] ≤20 |
| Immunity to interference from magnetic fields | Alternating magnetic field 50 ... 60 Hz |
| Short circuit current rating | Pulsed |
| Overload protection | Available |
| Reverse polarity protection | For all electrical connections |
| Special characteristics | Weld field immune, resistant to welding spatter |

| Operating and environmental conditions | |
|--|---|
| Ambient temperature | [°C] -25 ... +70 |
| CE marking (see declaration of conformity) | To EU EMC Directive ¹⁾ To EU RoHS Directive |
| UKCA marking (see declaration of conformity) | To UK instructions for EMC To UK RoHS instructions |
| Certification | RCM |
| Degree of protection | IP67 |

1) For information about the area of use, see the EC declaration of conformity at: www.festo.com/catalogue/SMTSO-1 → Support/Downloads.
If the devices are subject to usage restrictions in residential, commercial or light-industrial environments, further measures for the reduction of the emitted interference may be necessary.

Data sheet

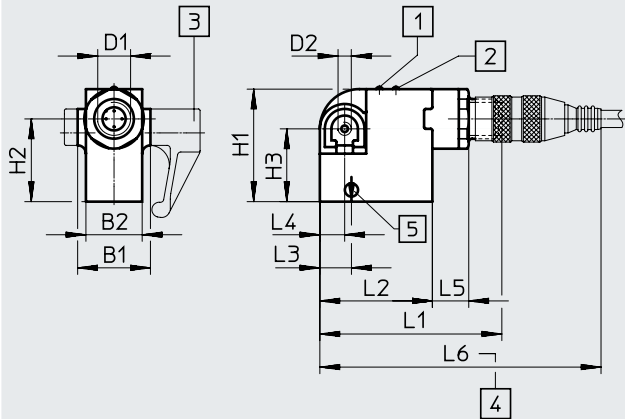
Materials

| | |
|-------------------|------------------------|
| Housing | PA, PUR, die-cast zinc |
| Note on materials | RoHS-compliant |

Dimensions

Download CAD data → www.festo.com

Plug M12x1



- [1] Ready status indication, green LED
- [2] Switching status, yellow LED
- [3] Mounting kit SMBT-1
- [4] Installation space for plug socket
- [5] Identification of theoretical switching point

| | B1 ±0.25 | B2 +0.8 | D1 | D2 | H1 ±0.3 | H2 ±0.25 | H3 ±0.2 | L1 ±0.6 | L2 ±0.3 | L3 | L4 ±0.2 | L5 ±0.3 | L6 |
|---------------------|-------------|------------|-------|----|------------|-------------|------------|------------|------------|----|------------|------------|-----|
| SMTSO-1-PS-S-LED-24 | 22 | 16.6 | M12x1 | M4 | 34 | 25 | 22 | 55 | 34 | 10 | 7.5 | 11 | ~85 |

Ordering data

| | Switching output | Electrical connection | Product weight [g] | Part no. | Type |
|--|-------------------------|-----------------------|--------------------|--------------|----------------------------|
| | N/O | | | | |
| | Welding field resistant | | | | |
| | PNP | Plug M12x1, 3-pin | 70 | 30441 | SMTSO-1-PS-S-LED-24 |

Ordering data – Connecting cables

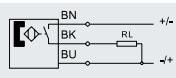
| | Switching output | Cable length [m] | Weight [g] | Part no. | Type |
|-------------------------------------|--------------------------------|------------------|------------|--------------|-------------------------|
| Resistant to welding spatter | | | | | |
| | 3-wire, M12x1 socket, straight | 3 | – | 30450 | SIM-M12-RS-3GD-3 |
| | 3-wire, M12x1 socket, angled | 3 | – | 30451 | SIM-M12-RS-3WD-3 |

Proximity switches SMEO-1, block design, magnetic reed

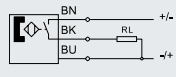
Data sheet

Function

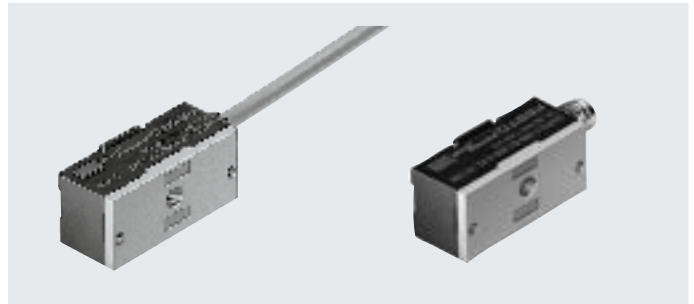
e.g. N/O contact, 3-wire, with cable



e.g. N/O contact, 3-wire, with plug



- Magnetic reed measuring principle



General technical data

| Electrical connection | 3-wire | | 2-wire | | |
|---|-------------------------|---------------|---------------------|------------------|---------------------------|
| Type | SMEO-1-...-24 | SMEO-1-S-24-B | SMEO-1-LED-230 | SMEO-1-B | SMEO-1-S6, heat resistant |
| Design | Block design | | | | |
| Conforms to standard | - | - | EN 60947-5-2 | DIN EN 60947-5-2 | DIN EN 60947-5-2 |
| Certification | RCM | - | RCM | - | - |
| CE marking (see declaration of conformity) | To EU EMC Directive | - | To EU EMC Directive | - | - |
| Note on materials | Free of copper and PTFE | | | | |

- 1) For information about the area of use, see the EC declaration of conformity at: www.festo.com/catalogue/SMEO-1 → Support/Downloads.
If the devices are subject to usage restrictions in residential, commercial or light-industrial environments, further measures for the reduction of the emitted interference may be necessary.

Input signal/measuring element

| Type | SMEO-1 | SMEO-1-S6, heat resistant |
|---------------------|------------------|---------------------------|
| Measuring principle | Magnetic reed | Magnetic reed |
| Ambient temperature | [°C] -20 ... +70 | -50 ... +120 |

Switching output

| Electrical connection | 3-wire | | 2-wire | | |
|--|---------------------|---------------|----------------|----------|---------------------------|
| Type | SMEO-1-...-24 | SMEO-1-S-24-B | SMEO-1-LED-230 | SMEO-1-B | SMEO-1-S6, heat resistant |
| Switching output | Contacting, bipolar | | | | |
| Switching element function | N/O | | | | |
| Reproducibility of switching value ¹⁾ | [mm] | ±0.1 | | | |
| Switch-on time | [ms] | ≤0.5 | 0.5 | | |
| Switch-off time | [ms] | - | 0.03 | | |
| Max. switching frequency | [Hz] | 500 | | | |
| Max. output current | [mA] | 1000 | - | 1000 | 1000 |
| Max. output current DC | [mA] | - | 120 | - | - |
| Max. output current AC | [mA] | - | 250 | - | - |
| Max. switching capacity DC | [W] | 27 | 40 | | |
| Max. switching capacity AC | [VA] | 27 | 40 | | |
| Voltage drop | [V] | - | ≤4.5 | 0 | |
| Residual current | [mA] | - | 0 | | |

- 1) Only applicable to drives protected against rotation.

Output, additional data

| | |
|------------------------------|--------------|
| Short circuit current rating | No |
| Overload protection | Not provided |

Data sheet

| Electronics | | | | | |
|-----------------------------|-----|---------------|---------------|----------------|--|
| Electrical connection | | 3-wire | | 2-wire | |
| Type | | SMEO-1-...-24 | SMEO-1-S-24-B | SMEO-1-LED-230 | SMEO-1-B SMEO-1-S6, heat resistant |
| Operating voltage range DC | [V] | 12 ... 27 | 0 ... 30 | 5 ... 200 | 0 ... 200 |
| Operating voltage range AC | [V] | 12 ... 27 | | 5 ... 250 | 0 ... 250 |
| Reverse polarity protection | | No | | | |

| Electromechanical systems | | | | | |
|----------------------------------|--|----------------|------------------|----------------|--|
| Electrical connection | | 3-wire | | 2-wire | |
| Type | | SMEO-1-...-24 | SMEO-1-S-24-B | SMEO-1-LED-230 | SMEO-1-B SMEO-1-S6, heat resistant |
| Electrical connection | | Cable and plug | Plug M8x1, 3-pin | Cable | |
| Outlet direction of connection | | In-line | – | In-line | |
| Materials – Cable sheath | | TPE-U(PUR) | – | PVC | PVC TPE-S |

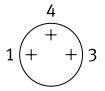
| Mechanical components | | | | | |
|------------------------------|------|------------------|---------------|----------------|--|
| Electrical connection | | 3-wire | | 2-wire | |
| Type | | SMEO-1-...-24 | SMEO-1-S-24-B | SMEO-1-LED-230 | SMEO-1-B SMEO-1-S6, heat resistant |
| Type of mounting | | With accessories | | | |
| Mounting position | | Any | | | |
| Tightening torque | [Nm] | – | | 2.9 | |

| Materials | | |
|------------------|-----|---------------|
| Housing | – | Epoxy resin |
| | – | PC |
| | PET | PET |
| | – | Steel |
| | – | TPE-O |
| | – | Die-cast zinc |
| | – | Steel |

Data sheet

| Display/operation | | | | | |
|-----------------------------|---------------|---------------|----------------|----------|------------------------------|
| Electrical connection | 3-wire | | 2-wire | | |
| Type | SMEO-1-...-24 | SMEO-1-S-24-B | SMEO-1-LED-230 | SMEO-1-B | SMEO-1-S6, heat resistant |
| Switching status indication | Yellow LED | – | Yellow LED | – | – |

| Immission/emission | | | | | |
|---|---------------|---------------|----------------|----------|------------------------------|
| Electrical connection | 3-wire | | 2-wire | | |
| Type | SMEO-1-...-24 | SMEO-1-S-24-B | SMEO-1-LED-230 | SMEO-1-B | SMEO-1-S6, heat resistant |
| Ambient temperature with flexible cable installation [°C] | –5 ... +70 | | –5 ... +70 | | –40 ... +120 |
| Degree of protection | IP67 | | IP67 | | |
| Surge resistance [kV] | – | | 4 | | |
| Pollution degree | – | | 3 | | |

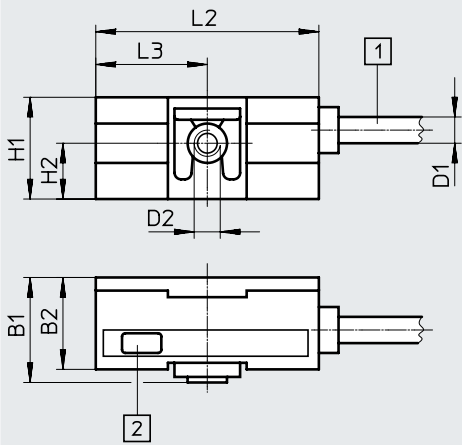
| Pin allocation to EN 60947-5-2 | | | |
|--|-----|-------------|------------|
| M8x1, 3-pin | | | |
| N/O | | | |
| | Pin | Wire colour | Allocation |
|  | 1 | Brown | + |
| | 3 | Blue | – |
| | 4 | Black | Output |

Data sheet

Dimensions

Download CAD data → www.festo.com

SMEO-1 – Cable



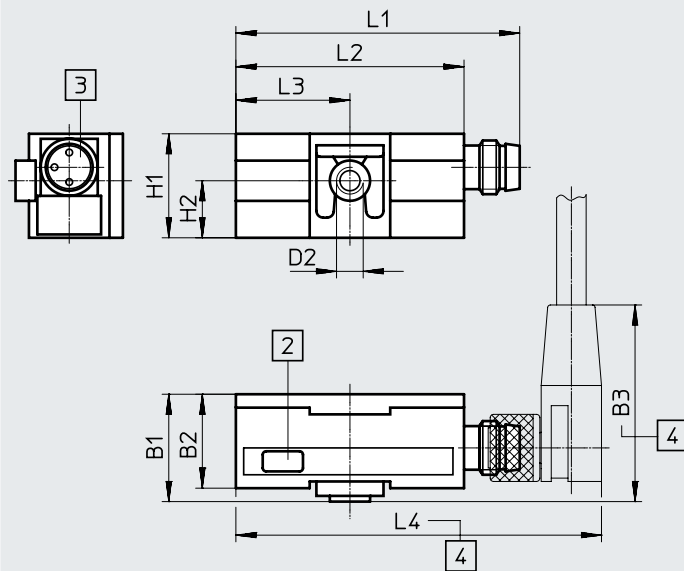
- [1] Connecting cable
- [2] Yellow LED

| | B1 | B2 | D1 | D2 | H1 | H2 | L2 | L3 |
|---------------------|------|------|-----------|----|------|------|------|------|
| | -0.2 | ±0.3 | ∅ +0.3 | | ±0.2 | ±0.1 | ±0.2 | -0.1 |
| SMEO-1-S6-C | 16 | 14 | 4.2 | M4 | 15.5 | 8.5 | 34 | 17 |
| SMEO-1-B | | | | | | | | |
| SMEO-1-LED-24-K5-B | | | | | | | | |
| SMEO-1-LED-230-B | | | | | | | | |
| SMEO-1-LED-230-K5-B | | | | | | | | |
| SMEO-1-LED-24-B | | | | | | | | |

Dimensions

Download CAD data → www.festo.com


SMEO-1-S – Plug M8x1



- [2] Yellow LED
- [3] Suitable for plug socket type SIM-M8
- [4] Installation space for angled plug socket 90°

| | B1 | B2 | B3 | D2 | H1 | H2 | L1 | L2 | L3 | L4 |
|-------------------|------|------|-------|----|------|------|------|------|------|-------|
| | -0.2 | ±0.3 | | | ±0.2 | ±0.1 | ±0.2 | ±0.2 | -0.1 | |
| SMEO-1-S-LED-24-B | 16 | 14 | ~27.5 | M4 | 15.5 | 8.5 | 42 | 34 | 17 | ~54.5 |
| SMEO-1-S-24-B | | | | | | | | | | |

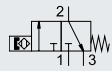
Data sheet

| Ordering data | | | | | | |
|--|---------------------|---------------------|--------------------------------|--------------------------|----------|---------------------|
| Electrical connection | | Cable length [m] | Switching status indication | Product weight [g] | Part no. | Type |
| Cable | Plug M8x1 | | | | | |
|  | | | | | | |
| N/O | | | | | | |
| Operating voltage range 12 ... 27 V DC | | | | | | |
| 3-wire | - | 2.5 | ■ | 85 | 30459 | SMEO-1-LED-24-B |
| | | 5.0 | ■ | 130 | 151672 | SMEO-1-LED-24-K5-B |
| - | 3-pin | - | ■ | 20 | 150848 | SMEO-1-S-LED-24-B |
| Operating voltage range 0 ... 30 V DC | | | | | | |
| - | 3-pin ¹⁾ | - | - | 20 | 150847 | SMEO-1-S-24-B |
| Operating voltage range 0 ... 250 V AC, 0 ... 200 V DC | | | | | | |
| 2-wire | - | 2.5 | ■ | 100 | 151671 | SMEO-1-LED-230-B |
| | | 5.0 | ■ | 130 | 160998 | SMEO-1-LED-230-K5-B |
| | | 2.5 | - | 100 | 30457 | SMEO-1-B |
| Heat resistant up to 120°C | | | | | | |
| 2-wire | - | 2.5 | - | 100 | 151673 | SMEO-1-S6-C |

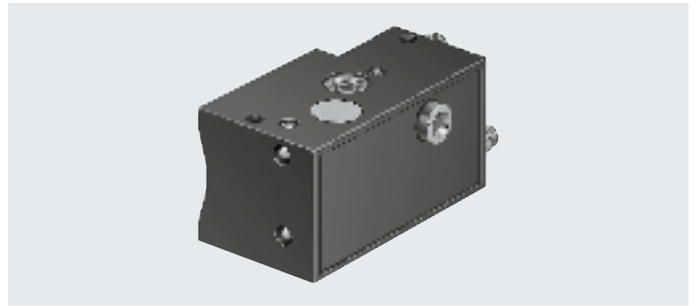
1) The proximity switch has 2 wires internally. One pin of the M8 plug is unused.

Data sheet

Function
3/2-way valve,
normally closed



- Pneumatic proximity switch
- Magnetic measuring principle



Design

| | |
|---|------------------|
| Design | Block design |
| Type of mounting | Via through-hole |
| | With accessories |
| Reproducibility of switching value ¹⁾ [mm] | ±0.2 |
| Switching status indication | Optical |

1) Only applicable to drives protected against rotation.

Technical data

| | |
|------------------------------------|---|
| Switching element function | 3/2-way valve, normally closed |
| Operating medium | Compressed air to ISO 8573-1:2010 [6:4:4] |
| Note on the operating/pilot medium | Lubricated operation not possible |
| Operating pressure [bar] | 2 ... 6 |
| Switch-on time [ms] | <30 |
| Switch-off time [ms] | <25 |
| Pneumatic connection | Barbed connector for tubing I.D. 3 mm |
| Degree of protection | IP65 |

Operating and environmental conditions

| | |
|--------------------------|-------------|
| Ambient temperature [°C] | -15 ... +60 |
|--------------------------|-------------|

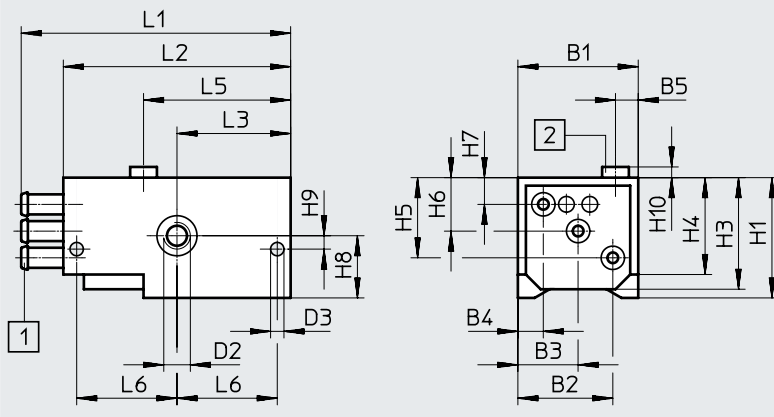
Materials

| | |
|------------------|---------|
| Housing | PA, POM |
| Barbed connector | Brass |

Data sheet

Dimensions

Download CAD data → www.festo.com



- [1] Barbed connector for tubing I.D. 3 mm
- [2] Switching status indication

| | B1 | B2 | B3 | B4 | B5 | D2 | D3 | H1 | H3 | H4 | H5 |
|------------|------|------|------|------|------|----|--------|------|------|------|------|
| | -0.2 | ±0.2 | ±0.2 | ±0.1 | ±0.1 | | ∅ ±0.1 | ±0.2 | ±0.2 | ±0.2 | ±0.2 |
| SMPO-1-H-B | 18 | 14.2 | 9 | 3.8 | 3.4 | M4 | 2 | 18 | 16.7 | 14.5 | 12 |

| | H6 | H7 | H8 | H9 | H10 | L1 | L2 | L3 | L5 | L6 |
|------------|------|------|------|------|------|-------|------|------|------|------|
| | ±0.2 | ±0.1 | ±0.2 | ±0.1 | ±0.1 | | ±0.3 | ±0.2 | ±0.2 | ±0.2 |
| SMPO-1-H-B | 8 | 4 | 9.3 | 2 | 1.6 | ~40.3 | 34 | 17 | 22 | 15 |

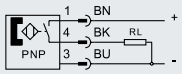
Ordering data

| | Pneumatic connection | Product weight [g] | Part no. | Type |
|--|--|--------------------|--------------|-------------------|
| | 3/2-way valve, normally closed Barbed connector for tubing I.D. 3 mm | 14 | 31008 | SMPO-1-H-B |

Data sheet

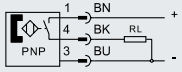
Function

PNP, N/O contact, with cable

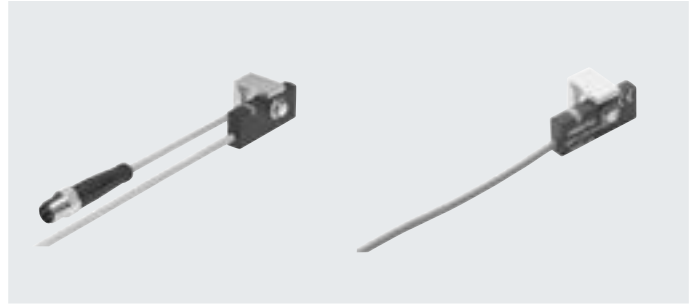


Function

PNP, N/O contact, with plug



- Magneto-inductive measuring principle
- For standards-based cylinders DSBF-C or CDN-...-R with sensor rail



General technical data

| | |
|---|---|
| Design | Block design |
| Based on standard | EN 60947-5-2 |
| Certification | RCM |
| CE marking (see declaration of conformity) | To EU EMC Directive ¹⁾ |
| Note on materials | Free of copper and PTFE Halogen-free |

1) For information about the area of use, see the EC declaration of conformity at: www.festo.com/catalogue/SMT-C1 → Support/Downloads.
If the devices are subject to usage restrictions in residential, commercial or light-industrial environments, further measures for the reduction of the emitted interference may be necessary.

Input signal/measuring element

| | |
|---------------------|-------------------|
| Measuring principle | Magneto-inductive |
| Measured variable | Position |
| Ambient temperature | [°C] -20 ... +70 |

Switching output

| | |
|----------------------------|----------------|
| Switching output | PNP |
| Switching element function | N/O |
| Switch-on time | [ms] 0 ... 0.5 |
| Switch-off time | [ms] 0 ... 0.5 |
| Max. output current | [mA] 200 |
| Max. switching capacity DC | [W] 6 |
| Voltage drop | [V] 0 ... 1.8 |

Output, additional data

| | |
|------------------------------|-----------|
| Short circuit current rating | Pulsed |
| Overload protection | Available |

Data sheet

| Electronics | | | | |
|--|------|--------------------------------|---|------------------------------|
| Operating voltage range DC | [V] | 10 ... 30 | | |
| Residual ripple | [%] | 10 | | |
| Reverse polarity protection | | For all electrical connections | | |
| Electromechanical systems | | | | |
| Type | | SMT-C1-...-OE | SMT-C1-...-M8D | SMT-C1-...-M12 |
| Electrical connection | | Cable, 3-wire | Cable with plug M8x1, 3-pin, rotatable thread | Cable with plug M12x1, 3-pin |
| Outlet direction of connection | | In-line | | |
| Cable length | [m] | - | 0.3 | 0.3 |
| | | 5 | - | - |
| | | 10 | | |
| Information on materials: Cable sheath | | TPE-O | | |
| Wire ends | | Wire end sleeve | | |
| Mechanical components | | | | |
| Type of mounting | | Clamped | | |
| Tightening torque | [Nm] | 1.2 | | |
| Mounting position | | Any | | |
| Information on housing materials | | High-alloy stainless steel | | |
| | | Wrought aluminium alloy | | |
| | | Nickel-plated brass | | |
| | | PP | | |
| | | TPE-O | | |
| | | TPE-U(PU) | | |
| Display/operation | | | | |
| Switching status indication | | Yellow LED | | |
| Immission/emission | | | | |
| Ambient temperature with flexible cable installation | [°C] | -20 ... +70 | | |
| Degree of protection | | To IEC 60529 | | |
| | | IP65 | | |
| | | IP68 | | |

Data sheet

| Pin allocation to EN 60947-5-2 | | | | M12x1, 3-pin | | | |
|--------------------------------|-----|-------------|------------|--------------|-----|-------------|------------|
| M8x1, 3-pin | | | | N/O | | | |
| N/O | | | | N/O | | | |
| | Pin | Wire colour | Allocation | | Pin | Wire colour | Allocation |
| | 1 | Brown | + | | 1 | Brown | + |
| | 3 | Blue | - | | 3 | Blue | - |
| | 4 | Black | Output | | 4 | Black | Output |

Dimensions

Download CAD data → www.festo.com

[1] Example: plug M8
 [2] Yellow LED
 [3] Theoretical switching point
 [4] Mounting rail on the drive

| | B1 | B2 | B3 | D1 | H1 | H2 | H3 | H4 | H5 | L1 | L2 | L3 | L4 | L5 | L6 | L7 | ≅ |
|--------|----|-----|-----|----|----|-----|----|----|-----|----|----|------|----|----|-----|----|-----|
| SMT-C1 | 16 | 3.5 | 8.8 | 3 | 17 | 9.2 | 4 | 4 | 3.8 | 34 | 26 | 14.5 | 13 | 10 | 3.5 | 3 | 5.5 |

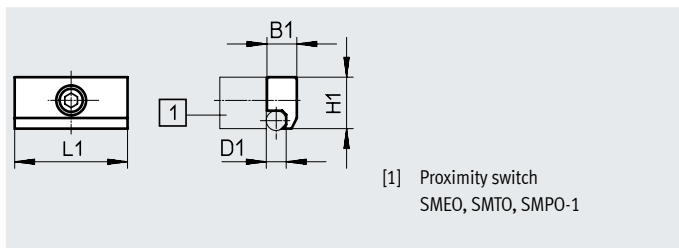
Ordering data

| | Switching output | Electrical connection | | Cable length | Product weight | Part no. | Type | |
|--|------------------|-----------------------|------------------------|--------------|----------------|---------------|--------------------------------|--------------------------------|
| | | Cable | Cable with plug | | | | | |
| | | | M8x1, rotatable thread | M12x1 | [m] | [g] | | |
| | N/O | | | | | | | |
| | PNP | 3-wire | - | - | 5 | 65.9 | 571339 | SMT-C1-PS-24V-K-5.0-OE |
| | | | - | - | 10 | 114.5 | 571340 | SMT-C1-PS-24V-K-10.0-OE |
| | | | 3-pin | - | 0.3 | 24.4 | 571342 | SMT-C1-PS-24V-K-0.3-M8D |
| | | - | 3-pin | 0.3 | 32.6 | 571341 | SMT-C1-PS-24V-K-0.3-M12 | |

Accessories

Mounting kit SMB-1

Material:
Die-cast zinc



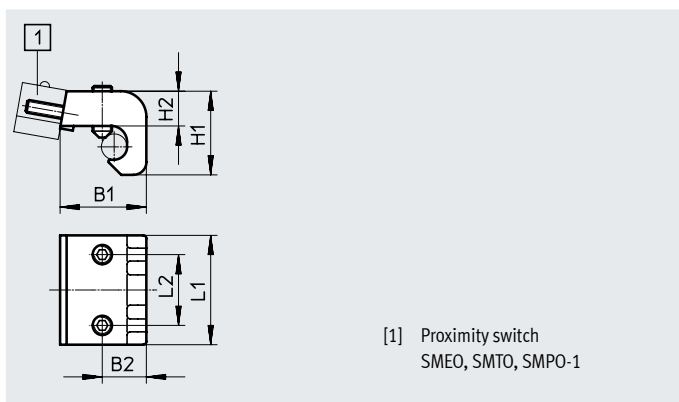
[1] Proximity switch
SMEO, SMT0, SMPO-1

Dimensions and ordering data

| For piston \varnothing | B1 | D1 \varnothing | H1 | L1 | Part no. | Type |
|--------------------------|----|---------------------|------|----|--------------|--------------|
| 32 ... 100 | 9 | 6 | 15.5 | 34 | 11886 | SMB-1 |

Mounting kit SMB-2-B/SMB-3-B

Material:
Die-cast aluminium



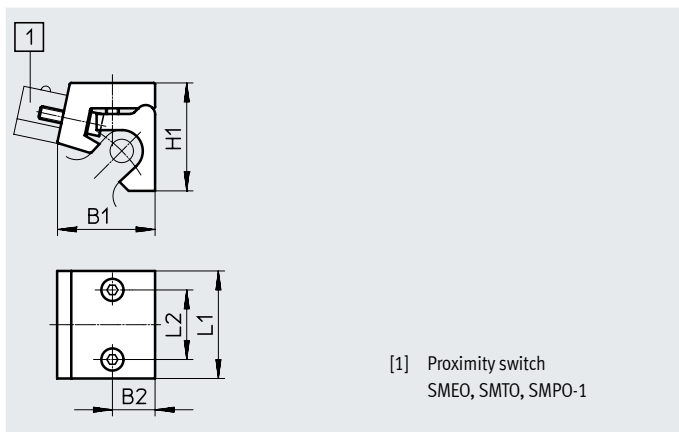
[1] Proximity switch
SMEO, SMT0, SMPO-1

Dimensions and ordering data

| For piston \varnothing | B1 | B2 | H1 | H2 | L1 | L2 | Part no. | Type |
|--------------------------|------|------|----|------|----|----|--------------|----------------|
| 32 ... 50 | 18 | 11 | 23 | 11.6 | 34 | 22 | 36162 | SMB-2-B |
| 63 ... 100 | 26.8 | 13.7 | 26 | 10.8 | 34 | 22 | 36163 | SMB-3-B |

Mounting kit SMBU

Material:
Die-cast aluminium



[1] Proximity switch
SMEO, SMT0, SMPO-1

Dimensions and ordering data

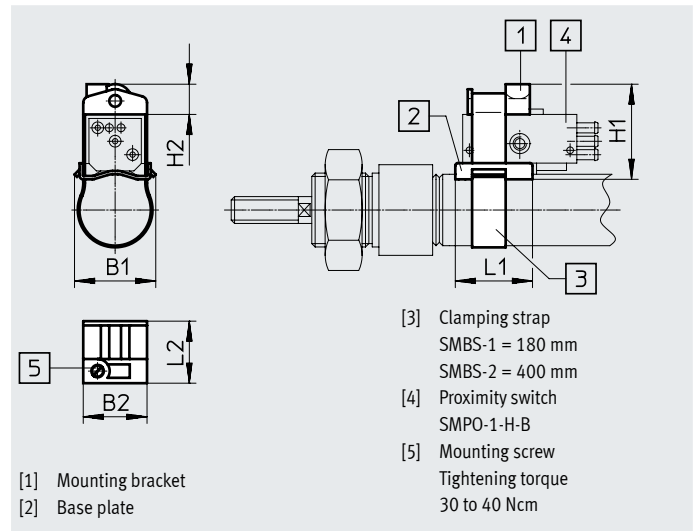
| For piston \varnothing | B1 | B2 | H1 | L1 | L2 | Part no. | Type |
|--------------------------|----|------|----|----|----|---------------|------------------------------|
| 32 ... 50 | 19 | 8.5 | 30 | 34 | 22 | 36173 | SMBU-1-B¹⁾ |
| 63 ... 100 | 31 | 13.5 | 34 | 34 | 22 | 36174 | SMBU-2-B¹⁾ |
| 125 | 31 | 13.5 | 37 | 34 | 22 | 152828 | SMBU-3-B |

1) Free of copper and PTFE

Accessories

Mounting kit SMBS

Material:
Brass, polymer

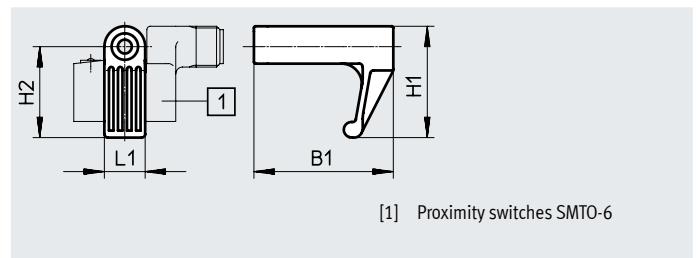


Dimensions and ordering data

| For piston \varnothing | B1 | B2 | H1 | H2 | L1 | L2 | Part no. | Type |
|--------------------------|------|----|-----|----|----|------|----------|--------|
| 8 ... 25 | 24.2 | 19 | ~29 | 9 | 23 | 18.5 | 151225 | SMBS-1 |
| 32 ... 100 | | | | | | | 151226 | SMBS-2 |

Mounting kit SMBT-1







Material:
Die-cast zinc



Dimensions and ordering data

| For piston \varnothing | B1 ± 0.3 | H1 | H2 ± 0.2 | L1 ± 0.2 | Part no. | Type |
|--------------------------|-----------------|----|-----------------|-----------------|----------|--------|
| 32 ... 200 | 41 | 33 | 27 | 12 | 150002 | SMBT-1 |

Accessories

| Ordering data – Connecting cables | | Number of wires | Cable length [m] | Part no. | Type | Data sheets → Internet: nebu |
|--|--------------------------------|------------------|------------------|------------|----------------------|------------------------------|
| Socket M8x1, 3-pin | | | | | | |
|  | For SMT-C1 and SMT0/SME0-1 | 3 | 2.5 | 541333 | NEBU-M8G3-K-2.5-LE3 | |
| | | | 5 | 541334 | NEBU-M8G3-K-5-LE3 | |
|  | For SMT-C1 and SMT0/SME0-1 | 3 | 2.5 | 541338 | NEBU-M8W3-K-2.5-LE3 | |
| | | | 5 | 541341 | NEBU-M8W3-K-5-LE3 | |
| Socket M12x1, 5-pin | | | | | | |
|  | For SMT-C1 and SMT0-6, SMTSO-1 | 3 | 2.5 | 541363 | NEBU-M12G5-K-2.5-LE3 | |
| | | | 5 | 541364 | NEBU-M12G5-K-5-LE3 | |
|  | For SMT-C1 and SMT0-6, SMTSO-1 | 3 | 2.5 | 541367 | NEBU-M12W5-K-2.5-LE3 | |
| | | | 5 | 541370 | NEBU-M12W5-K-5-LE3 | |
| Ordering data – Connecting cables | | Switching output | Cable length [m] | Weight [g] | Part no. | Type |
| Resistant to welding spatter | | | | | | |
|  | 3-wire, M12x1 socket, straight | 3 | – | 30450 | SIM-M12-RS-3GD-3 | |
| | | | | | | |
|  | 3-wire, M12x1 socket, angled | 3 | – | 30451 | SIM-M12-RS-3WD-3 | |
| | | | | | | |