



CM18-08BPP-TW0

CM PTFE

CAPACITIVE PROXIMITY SENSORS

SICK
Sensor Intelligence.



Ordering information

| Type | Part no. |
|----------------|----------|
| CM18-08BPP-TWO | 6026195 |

Other models and accessories → www.sick.com/CM_PTFE

Illustration may differ



Detailed technical data

Features

| | |
|---|-----------------------------------|
| Housing | Cylindrical thread design |
| Thread size | M18 x 1 |
| Diameter | Ø 18 mm |
| Sensing range S_n | 3 mm ... 8 mm |
| Safe sensing range S_a | 5.76 mm |
| Installation type | Flush |
| Switching frequency | 30 Hz |
| Connection type | Cable, 4-wire, 2 m ¹⁾ |
| Switching output | PNP |
| Output function | Complementary |
| Electrical wiring | DC 4-wire |
| Adjustment | Potentiometer, 270° (Sensitivity) |
| Enclosure rating | IP67 ²⁾ |

¹⁾ Do not bend below 0 °C.

²⁾ According to EN 60529.

Mechanics/electronics

| | |
|----------------------------|--------------------------|
| Supply voltage | 10 V DC ... 36 V DC |
| Ripple | ≤ 10 % ¹⁾ |
| Voltage drop | ≤ 2.5 V DC ²⁾ |
| Current consumption | 10 mA ³⁾ |

¹⁾ Of U_b.

²⁾ At I_a max.

³⁾ Without load.

⁴⁾ Of S_r.

⁵⁾ U_b and T_a constant.

⁶⁾ In EMC critical applications, conducted interference levels may lie within the frequency range of the oscillator. This can cause changes to the output signal. (See operating instructions.).

| | |
|---|---|
| Time delay before availability | ≤ 100 ms |
| Hysteresis | 4 % ... 20 % |
| Reproducibility | ≤ 5 % ^{4) 5)} |
| Temperature drift (of S_r) | ± 10 % |
| EMC | According to EN 60947-5-2 ⁶⁾ |
| Continuous current I_a | ≤ 200 mA |
| Cable material | PVC |
| Conductor size | 0.34 mm ² |
| Short-circuit protection | ✓ |
| Reverse polarity protection | ✓ |
| Power-up pulse protection | ✓ |
| Shock and vibration resistance | 30 g, 11 ms / 10 ... 55 Hz, 1 mm |
| Ambient operating temperature | -25 °C ... +60 °C |
| Housing material | PTFE coating, PTFE |
| Housing length | 71.5 mm |
| Thread length | 46.5 mm |
| Tightening torque, max. | ≤ 2.6 Nm |
| Items supplied | Mounting nut, PTFE plastic (2x) Screwdriver for potentiometer adjustment (1 x) |

¹⁾ Of Ub.

²⁾ At I_a max.

³⁾ Without load.

⁴⁾ Of S_r.

⁵⁾ Ub and Ta constant.

⁶⁾ In EMC critical applications, conducted interference levels may lie within the frequency range of the oscillator. This can cause changes to the output signal. (See operating instructions.).

Safety-related parameters

| | |
|-------------------------------------|-----------|
| MTTF_D | 897 years |
| DC_{avg} | 0 % |
| T_M (mission time) | 20 years |

Reduction factors

| | |
|-----------------|--|
| Note | The values are reference values which may vary |
| Metal | 1 |
| Water | 1 |
| PVC | Approx. 0.4 |
| Oil | Approx. 0.25 |
| Glass | 0.6 |
| Ceramics | 0.5 |
| Alcohol | 0.7 |
| Wood | 0.2 ... 0.7 |

Installation note

| | |
|---------------|---------------------------------------|
| Remark | Associated graphic see "Installation" |
|---------------|---------------------------------------|

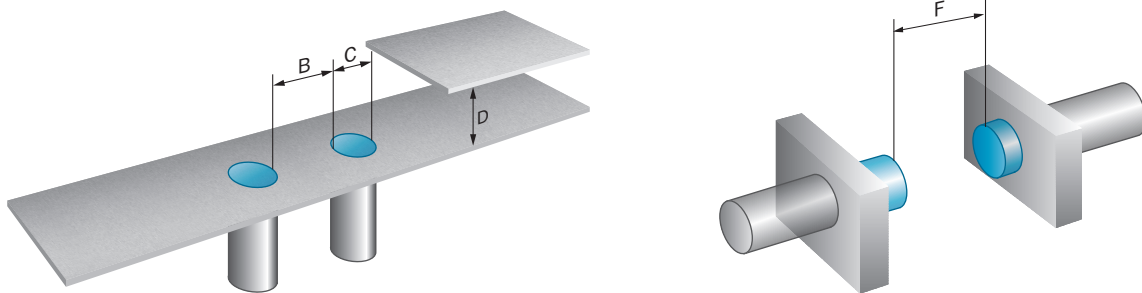
| | |
|----------|-------|
| B | 18 mm |
| C | 18 mm |
| D | 24 mm |

Classifications

| | |
|-----------------------|----------|
| ECl@ss 5.0 | 27270102 |
| ECl@ss 5.1.4 | 27270102 |
| ECl@ss 6.0 | 27270102 |
| ECl@ss 6.2 | 27270102 |
| ECl@ss 7.0 | 27270102 |
| ECl@ss 8.0 | 27270102 |
| ECl@ss 8.1 | 27270102 |
| ECl@ss 9.0 | 27270102 |
| ECl@ss 10.0 | 27270102 |
| ECl@ss 11.0 | 27270102 |
| ETIM 5.0 | EC002715 |
| ETIM 6.0 | EC002715 |
| ETIM 7.0 | EC002715 |
| ETIM 8.0 | EC002715 |
| UNSPSC 16.0901 | 39122230 |

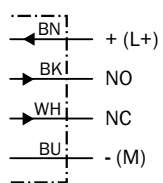
Installation note

Flush installation



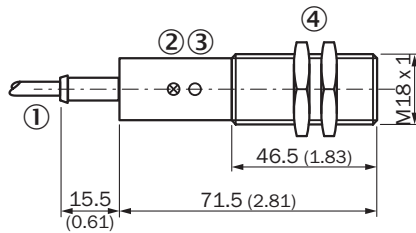
Connection diagram

Cd-005



Dimensional drawing (Dimensions in mm (inch))







CM18 PTFE, flush, cable







- ① Connection
- ② Display LED
- ③ Potentiometer
- ④ Fastening nuts (2 x); 34 mm hex, plastic

Recommended accessories

Other models and accessories → www.sick.com/CM_PTFE

| | Brief description | Type | Part no. |
|---|--|--------------|----------|
| Universal bar clamp systems | | | |
|  | <ul style="list-style-type: none"> Description: Plate N06N for universal clamp bracket, M18 Material: Stainless steel, stainless steel Items supplied: Universal clamp (5322627), mounting hardware Usable for: MH15, MH15V, V180-2, V18V, W15, GR18, GR18S, GR18 Inox, V18, V18 Laser, V12-2, SimpleSense, SureSense, M18 round sensors | BEF-KHS-N06N | 2051622 |
|  | <ul style="list-style-type: none"> Description: Mounting bar, straight, 200 mm, stainless steel Material: Stainless steel | BEF-MS12G-NA | 4058914 |
| Mounting brackets and plates | | | |
|  | <ul style="list-style-type: none"> Description: Mounting plate for M18 sensors Material: Stainless steel Items supplied: Without mounting hardware | BEF-WG-M18N | 5320948 |
|  | <ul style="list-style-type: none"> Description: Mounting bracket for M18 sensors Material: Stainless steel Items supplied: Without mounting hardware | BEF-WN-M18N | 5320947 |
| Plug connectors and cables | | | |
|  | <ul style="list-style-type: none"> Connection type head A: Female connector, M12, 4-pin, straight Connection type head B: - Authorizations: UL Description: Unshielded, Head A: female connector, M12, 4-pin, straight, unshielded, for power supply, for cable diameter 4 mm ... 6 mm Head B: - Connection systems: Screw-type terminals Permitted cross-section: ≤ 0.75 mm² | DOS-1204-G | 6007302 |
|  | <ul style="list-style-type: none"> Connection type head A: Female connector, M12, 4-pin, angled Connection type head B: - Authorizations: UL Description: Unshielded, Head A: female connector, M12, 4-pin, angled, unshielded, for power supply, for cable diameter 3 mm ... 6.5 mm Head B: - Connection systems: Screw-type terminals Permitted cross-section: ≤ 0.75 mm² | DOS-1204-W | 6007303 |

| | Brief description | Type | Part no. |
|---|--|-----------------|----------|
|  | <ul style="list-style-type: none"> • Connection type head A: Male connector, M12, 4-pin, straight • Connection type head B: - • Authorizations: UL • Description: Unshielded • Connection systems: Screw-type terminals • Permitted cross-section: ≤ 0.75 mm² | STE-1204-G | 6009932 |
|  | <ul style="list-style-type: none"> • Connection type head A: Male connector, M12, 4-pin, angled • Connection type head B: - • Authorizations: UL • Description: Unshielded • Connection systems: Screw-type terminals • Permitted cross-section: ≤ 0.75 mm² | STE-1204-W | 6022084 |
| Terminal and alignment brackets | | | |
|  | <ul style="list-style-type: none"> • Description: Mounting bracket with ball-and-socket • Material: Plastic • Items supplied: Mounting hardware included • Suitable for: GR18, MH15V, V180-2, V18 | BEF-WN-M18-ST02 | 5312973 |
|  | <ul style="list-style-type: none"> • Description: Clamping block for round sensors M18, without fixed stop • Material: Plastic • Items supplied: Mounting hardware included • Suitable for: GR18, MH15V, V180-2, V18 | BEF-KH-M18 | 2051481 |
| | <ul style="list-style-type: none"> • Description: Clamping block for round sensors M18, with fixed stop • Material: Plastic • Items supplied: Mounting hardware included • Suitable for: GR18, MH15V, V180-2, V18 | BEF-KHF-M18 | 2051482 |

SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is “Sensor Intelligence.”

WORLDWIDE PRESENCE:

Contacts and other locations –www.sick.com