



IME30-20NPSZC0S

IME

INDUCTIVE PROXIMITY SENSORS

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

| Type | Part no. |
|-----------------|----------|
| IME30-20NPSZCOS | 1041046 |

Included in delivery: BEF-MU-M30 (1)

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

Detailed technical data

Features

| | |
|--|---|
| Housing | Cylindrical thread design |
| Housing | Standard design |
| Thread size | M30 x 1.5 |
| Diameter | Ø 30 mm |
| Sensing range S_n | 20 mm |
| Safe sensing range S_a | 16.2 mm |
| Installation type | Non-flush |
| Switching frequency | 500 Hz |
| Connection type | Male connector M12, 4-pin |
| Switching output | PNP |
| Output function | NO |
| Electrical wiring | DC 3-wire |
| Enclosure rating | IP67 ¹⁾ |
| Items supplied | Mounting nut, brass, nickel-plated (2x) |

¹⁾ According to EN 60529.

Mechanics/electronics

| | |
|---------------------------------------|---------------------|
| Supply voltage | 10 V DC ... 30 V DC |
| Ripple | ≤ 10 % |
| Voltage drop | ≤ 2 V ¹⁾ |
| Time delay before availability | ≤ 125 ms |

¹⁾ At I_a max.

²⁾ U_b and T_a constant.

³⁾ Of S_r .

| | |
|---|-----------------------------------|
| Hysteresis | 5 % ... 15 % |
| Reproducibility | ≤ 2 % ^{2) 3)} |
| Temperature drift (of S_r) | ± 10 % |
| EMC | According to EN 60947-5-2 |
| Continuous current I_a | ≤ 200 mA |
| No load current | ≤ 10 mA |
| Short-circuit protection | ✓ |
| Reverse polarity protection | ✓ |
| Power-up pulse protection | ✓ |
| Shock and vibration resistance | 30 g, 11 ms/10 Hz ... 55 Hz, 1 mm |
| Ambient operating temperature | -25 °C ... +75 °C |
| Housing material | Brass, nickel-plated |
| Sensing face material | Plastic, PA 66 |
| Housing length | 71 mm |
| Thread length | 41 mm |
| Tightening torque, max. | ≤ 100 Nm |
| UL File No. | NRKH.E181493 |

¹⁾ At I_a max.

²⁾ U_b and T_a constant.

³⁾ Of S_r.

Safety-related parameters

| | |
|-------------------------|-------------|
| MTTF_D | 1,735 years |
| DC_{avg} | 0 % |

Reduction factors

| | |
|-----------------------------------|--|
| Note | The values are reference values which may vary |
| St37 steel (Fe) | 1 |
| Stainless steel (V2A, 304) | Approx. 0.8 |
| Aluminum (Al) | Approx. 0.45 |
| Copper (Cu) | Approx. 0.4 |
| Brass (Br) | Approx. 0.4 |

Installation note

| | |
|---------------|---------------------------------------|
| Remark | Associated graphic see "Installation" |
| A | 30 mm |
| B | 60 mm |
| C | 30 mm |
| D | 60 mm |
| E | 40 mm |
| F | 160 mm |

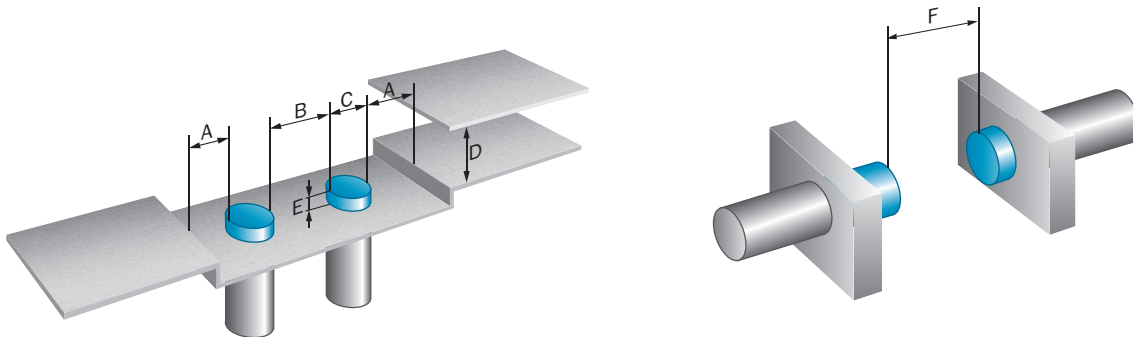
Classifications

| | |
|-------------------|----------|
| eCl@ss 5.0 | 27270101 |
|-------------------|----------|

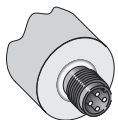
| | |
|-----------------------|----------|
| eCl@ss 5.1.4 | 27270101 |
| eCl@ss 6.0 | 27270101 |
| eCl@ss 6.2 | 27270101 |
| eCl@ss 7.0 | 27270101 |
| eCl@ss 8.0 | 27270101 |
| eCl@ss 8.1 | 27270101 |
| eCl@ss 9.0 | 27270101 |
| eCl@ss 10.0 | 27270101 |
| eCl@ss 11.0 | 27270101 |
| eCl@ss 12.0 | 27274001 |
| ETIM 5.0 | EC002714 |
| ETIM 6.0 | EC002714 |
| ETIM 7.0 | EC002714 |
| ETIM 8.0 | EC002714 |
| UNSPSC 16.0901 | 39122230 |

Installation note

Non-flush installation

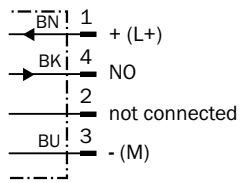


Connection type



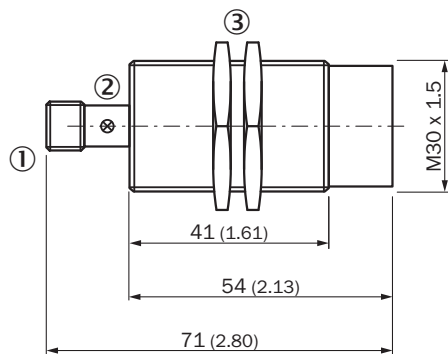
Connection diagram

Cd-007



Dimensional drawing (Dimensions in mm (inch))




IME30 Standard, connector, non-flush






- ① Connection
- ② Display LED
- ③ Fastening nuts (2x); width across 36, metal

Recommended accessories

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

| | Brief description | Type | Part no. |
|---|---|--------------------|----------|
| Mounting brackets and plates | | | |
|  | Mounting plate for M30 sensors, steel, zinc coated, without mounting hardware | BEF-WG-M30 | 5321871 |
|  | Mounting bracket for M30 sensors, steel, zinc coated, without mounting hardware | BEF-WN-M30 | 5308445 |
| Plug connectors and cables | | | |
|  | Head A: female connector, M12, 4-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 2 m | YF2A14-020VB3XLEAX | 2096234 |
| | Head A: female connector, M12, 4-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 5 m | YF2A14-050VB3XLEAX | 2096235 |

| | Brief description | Type | Part no. |
|---|--|--------------------|-----------------|
|  | Head A: female connector, M12, 4-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 10 m | YF2A14-100VB3XLEAX | 2096236 |
| | Head A: female connector, M12, 4-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 2 m | YG2A14-020VB3XLEAX | 2095895 |
| | Head A: female connector, M12, 4-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 5 m | YG2A14-050VB3XLEAX | 2095897 |
| | Head A: female connector, M12, 4-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 10 m | YG2A14-100VB3XLEAX | 2095898 |
|  | Head A: female connector, M12, 4-pin, straight Cable: unshielded | DOS-1204-G | 6007302 |
| |  Head A: female connector, M12, 4-pin, angled Cable: unshielded | DOS-1204-W | 6007303 |

SICK AT A GLANCE

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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.”

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