

IME30-20BNSZC0S

IME

INDUCTIVE PROXIMITY SENSORS

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

| Type | part no. |
|-----------------|----------|
| IME30-20BNSZCOS | 1071295 |

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

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

Detailed technical data

Features

| | |
|--|---|
| Housing | Metric |
| 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 | Quasi-flush |
| Switching frequency | 200 Hz |
| Connection type | Male connector M12, 4-pin |
| Switching output | NPN |
| Switching output detail | NPN |
| Output function | NO |
| Electrical wiring | DC 3-wire |
| Enclosure rating | IP67 ¹⁾ |
| Special features | Triple sensing range |
| 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 % |

¹⁾ At I_a max.

²⁾ Supply voltage U_B and constant ambient temperature T_a .

³⁾ Of S_r .

| | |
|--|--|
| Voltage drop | $\leq 2 \text{ V}^{1)}$ |
| Time delay before availability | $\leq 200 \text{ ms}$ |
| Warm-up time | 60 s |
| Hysteresis | 1 % ... 15 % |
| Reproducibility | $\leq 5 \%$ ²⁾ ³⁾ |
| Temperature drift (of S_r) | $\pm 10 \%$ |
| EMC | According to EN 60947-5-2 |
| Continuous current I_a | $\leq 200 \text{ mA}$ |
| No load current | $\leq 10 \text{ mA}$ |
| Short-circuit 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 |
| Ambient temperature, storage | -25 °C ... +75 °C |
| Housing material | Brass, nickel-plated |
| Sensing face material | Plastic, PA 66 |
| Housing length | 71 mm |
| Thread length | 54 mm |
| Tightening torque, max. | $\leq 70 \text{ Nm}$ |
| UL File No. | NRKH.E181493 |

¹⁾ At I_a max.

²⁾ Supply voltage U_B and constant ambient temperature T_a .

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. 0.78 |
| Aluminum (Al) | Approx. 0.35 |
| Copper (Cu) | Approx. 0.27 |
| Brass (Br) | Approx. 0.38 |

Installation note

| | |
|---------------|---------------------------------------|
| Remark | Associated graphic see "Installation" |
| A | 33 mm |
| B | 80 mm |
| C | 30 mm |
| D | 60 mm |
| E | 6 mm |

| | |
|----------|--------|
| F | 200 mm |
|----------|--------|

Certificates

| | |
|---|---|
| EU declaration of conformity | ✓ |
| UK declaration of conformity | ✓ |
| ACMA declaration of conformity | ✓ |
| Moroccan declaration of conformity | ✓ |
| China RoHS | ✓ |
| cULus certificate | ✓ |

Classifications

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

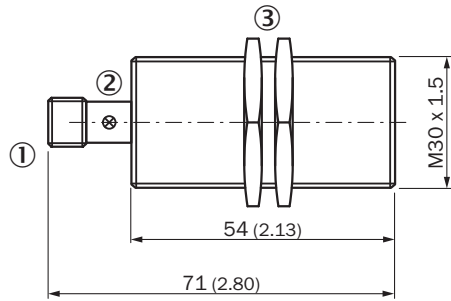
Installation note Quasi-flush installation



Connection diagram Cd-007



Dimensional drawing IME30 Standard, connector, flush







Dimensions in mm (inch)

- 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 systems | | | |
|  | <ul style="list-style-type: none"> • Description: Mounting bracket for M30 sensors • Material: Steel • Details: Steel, zinc coated • Items supplied: Without mounting hardware | BEF-WN-M30 | 5308445 |
|  | <ul style="list-style-type: none"> • Description: Mounting plate for M30 sensors • Material: Steel • Details: Steel, zinc coated • Items supplied: Without mounting hardware | BEF-WG-M30 | 5321871 |

| | Brief description | Type | part no. |
|---|--|--------------------|----------|
| connectors and cables | | | |
|  | <ul style="list-style-type: none"> Description: Unshielded Connection type head A: Female connector, M12, 4-pin, straight, A-coded Connection systems: Screw-type terminals Permitted cross-section: ≤ 0.75 mm² | DOS-1204-G | 6007302 |
|  | <ul style="list-style-type: none"> Description: Unshielded Connection type head A: Female connector, M12, 4-pin, angled, A-coded Connection systems: Screw-type terminals Permitted cross-section: ≤ 0.75 mm² | DOS-1204-W | 6007303 |
|  | <ul style="list-style-type: none"> Description: Sensor/actuator cable, unshielded Connection type head A: Female connector, M12, 4-pin, straight, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 5 m, 4-wire, PVC Application: Uncontaminated zones, Zones with chemicals | YF2A14-050VB3XLEAX | 2096235 |
|  | <ul style="list-style-type: none"> Description: Sensor/actuator cable, unshielded Connection type head A: Female connector, M12, 4-pin, straight, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 5 m, 4-wire, PUR, halogen-free Application: Drag chain operation, Zones with oils and lubricants, Robot, Drag chain operation | YF2A14-050UB3XLEAX | 2095608 |
|  | <ul style="list-style-type: none"> Description: Sensor/actuator cable, unshielded Connection type head A: Female connector, M12, 4-pin, angled, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 0.6 m, 4-wire, PVC Application: Uncontaminated zones, Zones with chemicals | YG2A14-C60VB3XLEAX | 2145709 |
|  | <ul style="list-style-type: none"> Description: Sensor/actuator cable, unshielded Connection type head A: Female connector, M12, 4-pin, angled, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 1 m, 4-wire, PVC Application: Uncontaminated zones, Zones with chemicals | YG2A14-010VB3XLEAX | 2145710 |
|  | <ul style="list-style-type: none"> Description: Sensor/actuator cable, unshielded Connection type head A: Female connector, M12, 4-pin, straight, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 0.6 m, 4-wire, PVC Application: Uncontaminated zones, Zones with chemicals | YF2A14-C60VB3XLEAX | 2145707 |
|  | <ul style="list-style-type: none"> Description: Sensor/actuator cable, unshielded Connection type head A: Female connector, M12, 4-pin, straight, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 1 m, 4-wire, PVC Application: Uncontaminated zones, Zones with chemicals | YF2A14-010VB3XLEAX | 2145708 |

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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