



IMX18-30NNOZU2S

IMX

INDUCTIVE PROXIMITY SENSORS

SICK
Sensor Intelligence.

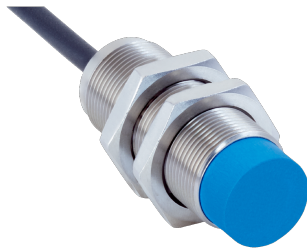


Illustration may differ



Ordering information

| Type | Part no. |
|-----------------|----------|
| IMX18-30NNOZU2S | 1134202 |

Included in delivery: BEF-MU-M18 (1)

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

Detailed technical data

Features

| | |
|--|--|
| Housing | Metric |
| Housing | Standard design |
| Thread size | M18 x 1 |
| Diameter | Ø 18 mm |
| Sensing range S_n | 30 mm |
| Safe sensing range S_a | 24.3 mm |
| Installation type | Non-flush |
| Switching frequency | 10 Hz |
| Connection type | Cable, 3-wire, 2 m |
| Switching output | NPN |
| Switching output detail | NPN |
| Output function | NC |
| Electrical wiring | DC 3-wire |
| Enclosure rating | IP68 ¹⁾ |
| Special features | Quadruple sensing range, Resistant against coolant lubricants, Visual adjustment indicator |
| Special applications | Zones with coolants and lubricants |
| 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 | ≤ 150 ms |

¹⁾ At I_a max.

²⁾ Supply voltage U_B and constant ambient temperature T_a .

³⁾ Of S_r .

| | |
|---|---|
| Hysteresis | 5 % ... 15 % |
| Reproducibility | $\leq 7 \%$ ^{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 | $\leq 50 \text{ mA}$ |
| Cable material | PUR |
| Conductor size | 0.34 mm ² |
| Cable diameter | Ø 4.5 mm |
| Short-circuit protection | ✓ |
| Power-up pulse protection | ✓ |
| Shock and vibration resistance | 30 g, 11 ms / 10 ... 55 Hz, 1 mm |
| Indication | |
| | LED yellow Output state (on/off) |
| | LED green Stable on/off state |
| Ambient operating temperature | -25 °C ... +75 °C |
| Housing material | Nickel-plated brass |
| Sensing face material | Plastic, LCP |
| Housing length | 59 mm |
| Thread length | 46.5 mm |
| Tightening torque, max. | $\leq 30 \text{ Nm}$ |
| Protection class | III |
| UL File No. | E181493 |
| Service interface | IO-Link as a service interface. The interface can only be used by SICK Service. |

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 | 411 years |
| DC_{avg} | 0 % |
| T_M (mission time) | 20 years |

Reduction factors

| | |
|-----------------------------------|--|
| Note | The values are reference values which may vary |
| St37 steel (Fe) | 1 |
| Stainless steel (V2A, 304) | 1 |
| Aluminum (Al) | 0.6 |
| Copper (Cu) | 0.4 |
| Brass (Br) | 0.7 |

Installation note

| | |
|---------------|---------------------------------------|
| Remark | Associated graphic see "Installation" |
| A | 56 mm |

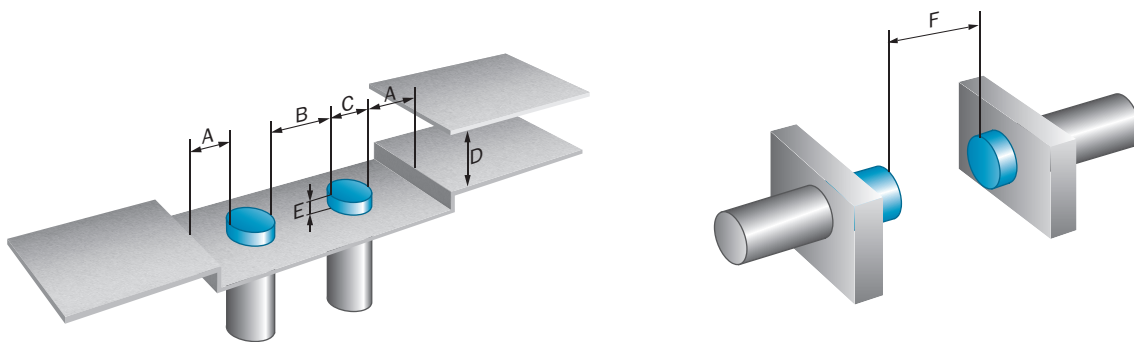
| | |
|----------|-------|
| B | 36 mm |
| C | 18 mm |
| D | 90 mm |
| E | 35 mm |
| F | 90 mm |

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 |

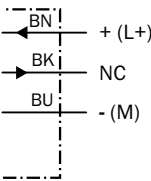
Installation note

Non-flush installation

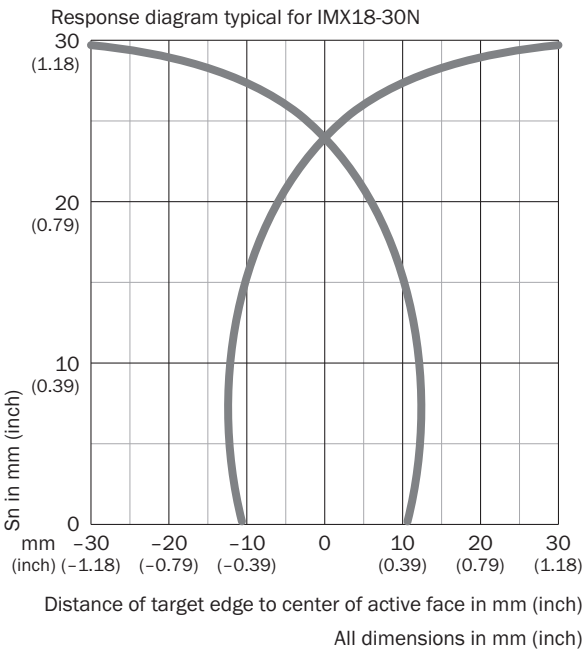


Connection diagram

Cd-003

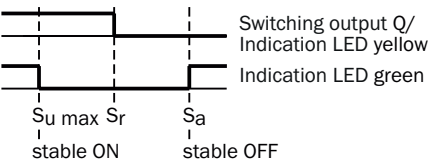


Response diagram



Functional principle

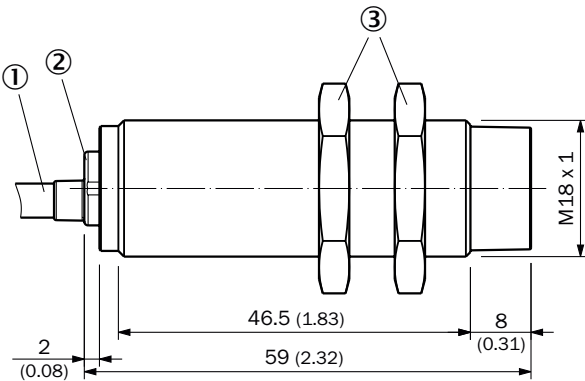
Installation aid



| LED indicator green | LED indicator yellow | Status |
|---------------------|----------------------|---|
| ON | ON | Output is activated (ON), sensor in stable ON state |
| OFF | ON | Output is activated (ON), no object detected |
| OFF | OFF | Output is deactivated (OFF), object detected |
| ON | OFF | Output is deactivated (OFF), sensor in stable OFF state |

Dimensional drawing (Dimensions in mm (inch))






IMX18, standard variant, cable, non-flush




- ① Connection
② Display LED
③ Fastening nuts (2x); width across 24, brass nickel-plated

Recommended accessories

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

| | Brief description | Type | Part no. |
|---|--|-------------|----------|
| Mounting brackets and plates | | | |
|  | <ul style="list-style-type: none">• Description: Mounting plate for M18 sensors• Material: Steel• Details: Steel, zinc coated• Items supplied: Without mounting hardware• Suitable for: GR18, V180-2, V18, W15, Z1, Z2 | BEF-WG-M18 | 5321870 |
|  | <ul style="list-style-type: none">• Description: Mounting bracket for M18 sensors• Material: Steel• Details: Steel, zinc coated• Items supplied: Without mounting hardware• Suitable for: GR18, V180-2, V18, W15, Z1, Z2 | BEF-WN-M18 | 5308446 |
| Others | | | |
|  | <ul style="list-style-type: none">• Connection type head A: Male connector, M12, 4-pin, straight, A-coded• Description: Unshielded• Connection systems: Screw-type terminals• Permitted cross-section: ≤ 0.75 mm²• Application: Hygienic and washdown zones | STE-1204-GN | 6028359 |
|  | <ul style="list-style-type: none">• Connection type head A: Male connector, M12, 4-pin, straight, A-coded• Description: Unshielded• Connection systems: Screw-type terminals• Permitted cross-section: ≤ 0.75 mm²• Note: For 2 cable connections• Application: Hygienic and washdown zones | STE-1204-TN | 6028360 |
|  | <ul style="list-style-type: none">• Connection type head A: Female connector, M12, 4-pin, straight, A-coded• Description: Unshielded• Connection systems: Screw-type terminals• Permitted cross-section: ≤ 0.75 mm²• Application: Hygienic and washdown zones | DOS-1204-GN | 6028357 |

| | Brief description | Type | Part no. |
|---|---|-------------|----------|
|  | <ul style="list-style-type: none"> • Connection type head A: Female connector, M12, 4-pin, angled, A-coded • Description: Unshielded • Connection systems: Screw-type terminals • Permitted cross-section: $\leq 0.75 \text{ mm}^2$ • Application: Hygienic and washdown zones | DOS-1204-WN | 6028358 |

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