

Datasheet
RS Stock No: 164-6097

Inductive Proximity Sensor



Detailed Technical data

Features

| | |
|-----------------------|---------------------------|
| Housing | Cylindrical thread design |
| Housing | Short-body |
| Thread size | M8 x 1 |
| Diameter | Ø 8 mm |
| Sensing range Sn | 2.5 mm |
| Safe sensing range Sa | 2.025 mm |
| Installation type | Non-Flush |
| Switching frequency | 4,000 Hz |
| Connection type | Cable, 3-wire, 2 m |
| Switching output | NPN |
| Output function | NO |
| Electrical wiring | DC 3-wire |
| Enclosure rating | IP67 ¹⁾ |

¹⁾ According to EN 60529.

Mechanics/electronics

| | |
|-----------------------------------|---|
| Supply voltage | 10 V DC ... 30 V DC |
| Ripple | ≤ 10 % |
| Voltage drop | ≤ 2 V ¹⁾ |
| Current consumption | 10 mA ²⁾ |
| Time delay before availability | ≤ 100 ms |
| Hysteresis | 5 % ... 15 % |
| Reproducibility | ≤ 2 % ^{3) 4)} |
| Temperature drift (of Sr) | ± 10 % |
| EMC | According to EN 60947-5-2 |
| Continuous current I _a | ≤ 200 mA |
| Cable material | PVC |
| Conductor size | 0.25 mm ² |
| Cable diameter | Ø 3.9 mm |
| 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 | Metal, Nickel-plated brass |
| Sensing face material | Plastic, PA 66 |
| Housing length | 43 mm |
| Thread length | 21 mm |
| Tightening torque, max. | ≤ 5 Nm |
| Items supplied | Mounting nut, brass, nickel-plated (2x) |
| UL File No. | NRKH.E181493 |

1) At I_{a,max}.

2) Without load.

3) U_b and T_a constant.

4) Of Sr.

Reduction Factors

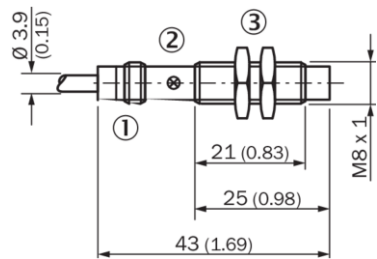
| | |
|----------------------------|--|
| Note | The values are reference values which may vary |
| St37 steel (Fe) | 1 |
| Stainless steel (V2A, 304) | Approx. 0.8 |
| Aluminum (Al) | Approx. 0.45 |
| Copper (Cu) | Approx. 0.4 |
| Brass (Br) | Approx. 0.4 |

Installation note

| | |
|--------|--|
| Remark | Associated graphic see "Installation" on next page |
| A | 8 mm |
| B | 16 mm |
| C | 8 mm |
| D | 7.5 mm |
| E | 6 mm |
| F | 20 mm |

Dimensional drawing (Dimensions in mm (inch))

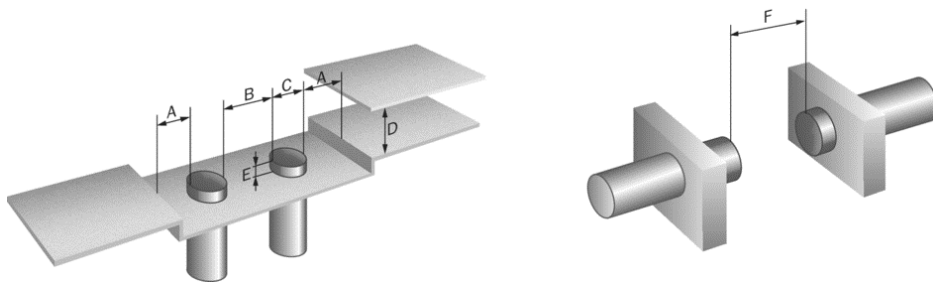
IME08 Short body housing, cable, non-flush



1. Connection
2. Indication LED
3. Fastening nuts (2x); width across 13, metal

Installation

Non-flush installation



Connection diagram

Cd-001

