



IMP08-1B5PSVU2S

IMP

INDUCTIVE PROXIMITY SENSORS

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

| Type | Part no. |
|-----------------|----------|
| IMP08-1B5PSVU2S | 6050111 |

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

Detailed technical data

Features

| | |
|--|---|
| Housing | Cylindrical thread design |
| Thread size | M8 x 1 |
| Diameter | Ø 8 mm |
| Pressure resistance | ≤ 500 bar |
| Sensing range S_n | 1.5 mm |
| Safe sensing range S_a | 1.2 mm |
| Installation type | Flush |
| Switching frequency | 800 Hz |
| Connection type | Cable, 3-wire, 2 m |
| Switching output | PNP |
| Output function | NO |
| Electrical wiring | DC 3-wire |
| Enclosure rating | IP68 ¹⁾ |
| Special features | High pressure resistant, Temperature resistance |
| Special applications | Hydraulic application |

¹⁾ Sensing face.

Mechanics/electronics

| | |
|-----------------------|----------------------|
| Supply voltage | 10 V DC ... 30 V DC |
| Ripple | ≤ 20 % ¹⁾ |
| Voltage drop | ≤ 2 V ²⁾ |

¹⁾ Of V_S .

²⁾ With $I_a = 200$ mA.

³⁾ Typ. 8%.

⁴⁾ $U_b = 20 \dots 30$ VDC.

⁵⁾ $T_a = 23 \text{ °C} \pm 5 \text{ °C}$.

⁶⁾ $-25 \text{ °C} \dots +70 \text{ °C}$.

⁷⁾ $+70 \text{ °C} \dots +100 \text{ °C}$.

⁸⁾ Front.

| | |
|---|--|
| Time delay before availability | ≤ 30 ms |
| Hysteresis | 1 % ... 15 % ³⁾ |
| Reproducibility | ≤ 5 % ^{4) 5)} |
| Temperature drift (of S_r) | ± 10 % ⁶⁾ ± 15 % ⁷⁾ |
| EMC | According to EN 60947-5-2 |
| Continuous current I_a | ≤ 200 mA |
| Vacuum resistance | 10 ⁻⁸ Torr ⁸⁾ |
| Size support ring | 9.9 mm x 6.6 mm x 1 mm |
| Cable material | PUR |
| Conductor size | 0.14 mm ² |
| Cable diameter | Ø 3.5 mm |
| Short-circuit protection | ✓ |
| Reverse polarity protection | ✓ |
| Shock and vibration resistance | 30 g, 11 ms / 10 ... 55 Hz, 1 mm |
| Ambient operating temperature | -25 °C ... +100 °C |
| Housing material | Stainless steel V2A, DIN 1.4305 / AISI 303 |
| Sensing face material | Ceramics, ZrO ₂ |
| Material, supporting ring | FPM |
| Housing length | 30 mm |
| Thread length | 6 mm |
| Tightening torque, max. | ≤ 12 Nm |

1) Of V_S.

2) With I_a = 200 mA.

3) Typ. 8%.

4) U_b = 20 ... 30 VDC.

5) T_a = 23 °C ± 5 °C.

6) -25 °C ... +70 °C.

7) +70 °C ... +100 °C.

8) Front.

Safety-related parameters

| | |
|-------------------------------------|-----------|
| MTTF_D | 171 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) | Approx. 0.66 |
| Aluminum (Al) | Approx. 0.26 |
| Copper (Cu) | Approx. 0.22 |
| Brass (Br) | Approx. 0.39 |

Installation note

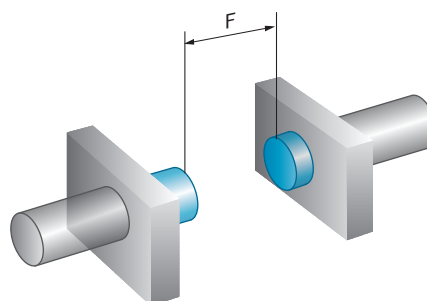
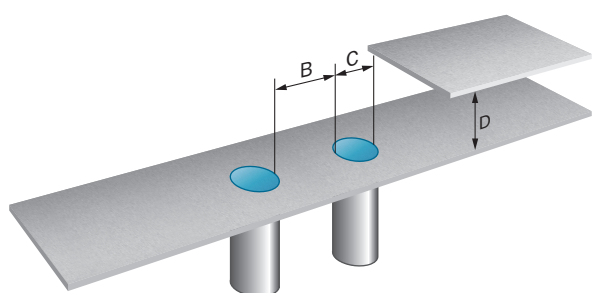
| | |
|---------------|---------------------------------------|
| Remark | Associated graphic see "Installation" |
| B | 6 mm |
| C | 8 mm |
| D | 4.5 mm |
| F | 12 mm |

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 |

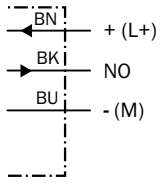
Installation note

Flush installation

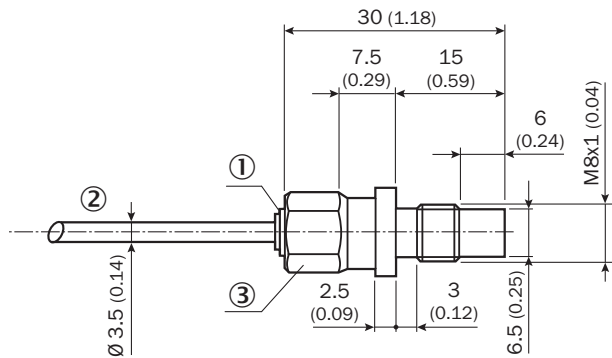


Connection diagram

Cd-001



Dimensional drawing (Dimensions in mm (inch))



- ① Display LED
- ② Cable, 3-wire
- ③ Width across 10

Recommended accessories

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

| Type | Part no. |
|----------------------------|----------|
| Other mounting accessories | |
| O-ring IMP08 | 5327493 |

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