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DATA SHEET

# IMR30-30NPSTC0S

IMR  
Inductive proximity sensors

**SICK** Sensor Intelligence

## INDUCTIVE PROXIMITY SENSORS

## IMR30-30NPSTC0S

## ORDERING INFORMATION

Type	part no.
IMR30-30NPSTC0S	6069280

Further device versions and accessories at [www.sick.com/IMR](http://www.sick.com/IMR)



## DETAILED TECHNICAL DATA

## FEATURES

Housing	Metric
Housing	Standard design
Thread size	M30 x 1.5
Diameter	Ø 30 mm
Sensing range $S_n$	30 mm
Safe sensing range $S_s$	24.3 mm
Installation type	Non-flush
Switching frequency	1,000 Hz
Connection type	Male connector M12, 4-pin
Switching output	PNP
Switching output detail	PNP
Output function	NO
Electrical wiring	DC 3-wire
Enclosure rating	IP68
Special features	Reduction factor 1, Magnetic-field-resistant
Special applications	Welding range, Difficult application conditions
Items supplied	Mounting nut, brass, PTFE coating (2x) Washer, brass, PTFE coating, with locking teeth (2x)

**MECHANICS/ELECTRONICS**

Supply voltage	10 V DC ... 30 V DC
Ripple	≤ 10 %
Voltage drop	≤ 1.8 V <sup>1)</sup>
Hysteresis	3 % ... 15 %
Reproducibility	≤ 2 % <sup>2)</sup> <sup>3)</sup>
Temperature drift (of S <sub>i</sub> )	≤ ± 10 % ≤ ± 15 % <sup>4)</sup>
Continuous current I <sub>s</sub>	≤ 200 mA
No load current	≤ 15 mA
Off-state current	≤ 0.1 mA
Short-circuit protection	✓
Magnetic field strength	≤ 100 mT
Shock and vibration resistance	30 g, 11 ms / 10 ... 55 Hz, 1 mm
Ambient operating temperature	-30 °C ... +85 °C
Housing material	PTFE coating, brass
Sensing face material	Plastic, PTFE coating
Housing length	62 mm
Thread length	31 mm
Tightening torque, max.	Typ. 75 Nm
Protection class	II <sup>5)</sup>
UL File No.	E191603

<sup>1)</sup> At I<sub>s</sub> max.<sup>2)</sup> Supply voltage U<sub>s</sub> and constant ambient temperature Ta.<sup>3)</sup> Of S<sub>r</sub>.<sup>4)</sup> -25 °C ... +70 °C.<sup>5)</sup> Reference voltage: 50 V DC.**SAFETY-RELATED PARAMETERS**

MTTF <sub>D</sub>	139 years
DC <sub>avg</sub>	0%
T <sub>M</sub> (mission time)	20 years

**REDUCTION FACTORS**

Note	The values are reference values which may vary
Reduction factor	Reduction factor 1
Stainless steel (V2A, 304)	1
Aluminum (Al)	1
Copper (Cu)	1
Brass (Br)	1

**INSTALLATION NOTE**

Remark	Associated graphic see "Installation"
A	30 mm
B	105 mm
C	30 mm
D	90 mm

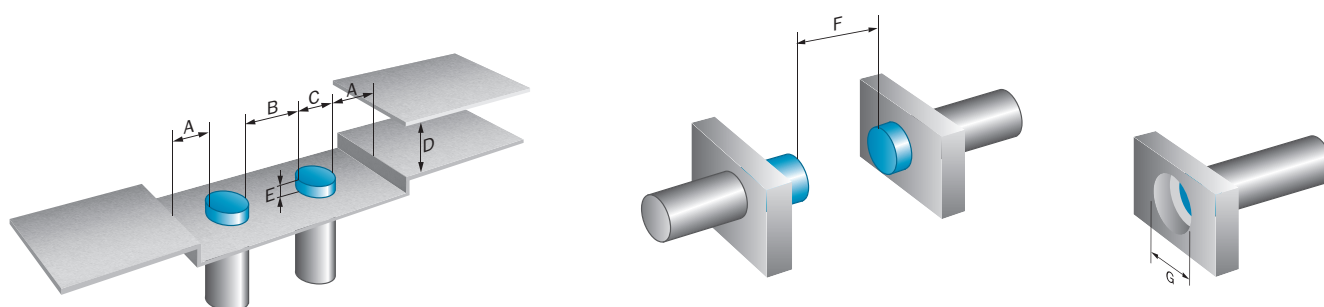
# INDUCTIVE PROXIMITY SENSORS - IMR30-30NPSTC0S

E	15 mm
F	180 mm
G	90 mm

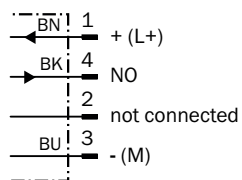
## CERTIFICATES

EU declaration of conformity	✓
China RoHS	✓
China Compulsory Product Certification (CCC) exempt	✓
cULus certificate	✓

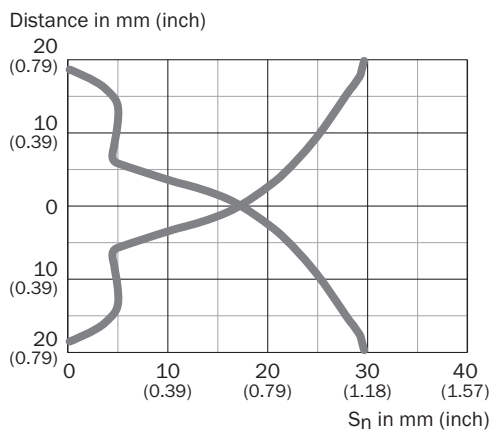
## INSTALLATION NOTE



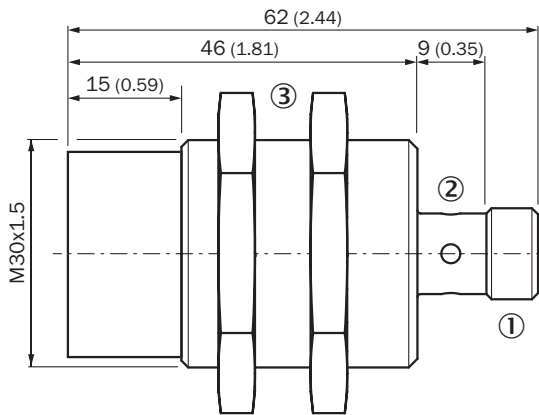
## CONNECTION DIAGRAM CD-007



## RESPONSE DIAGRAM



## DIMENSIONAL DRAWING



Dimensions in mm (inch)

- ① M12 x 1
- ② LED output state, yellow
- ③ Fastening nuts (2x); width across 36, metal

Further information as well as suitable accessories, example applications and downloads such as CAD dimensional models, operating instructions and software can be found at [www.sick.com/6069280](http://www.sick.com/6069280)



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Since 1946, we have been developing innovative technologies with passion and a pioneering spirit. With a global network in around 40 countries, SICK has a global presence and is always close by. The company's headquarters are located in Waldkirch near Freiburg, Germany. Our customers benefit from our understanding of both local and global requirements, which enables us to deliver tailor-made solutions

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