



DATA SHEET

IQ20-07BPSDP0S

IQV
Inductive proximity sensors

SICK

Sensor Intelligence



INDUCTIVE PROXIMITY SENSORS

IQ20-07BPSDPOS

ORDERING INFORMATION

Type	part no.
IQ20-07BPSDPOS	6042043

Further device versions and accessories at www.sick.com/IQV



DETAILED TECHNICAL DATA

FEATURES

Housing	Rectangular
Dimensions (W x H x D)	20 mm x 32 mm x 8 mm
Sensing range S _n	7 mm
Safe sensing range S _a	5.67 mm
Installation type	Flush
Switching frequency	150 Hz
Connection type	Cable with connector M8, 3-pin, 0.3 m
Switching output	PNP
Switching output detail	PNP
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
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¹⁾ Of V_s.

²⁾ At I_s max.

³⁾ Supply voltage U_s and constant ambient temperature Ta.

⁴⁾ Of Sr.

Ripple	$\leq 10\%$ ¹⁾
Voltage drop	$< 2.5\text{ V}$ ²⁾
Time delay before availability	$\leq 20\text{ ms}$
Hysteresis	1% ... 15%
Reproducibility	$\pm 5\%$ ³⁾ ⁴⁾
Temperature drift (of S _r)	$\pm 10\%$
EMC	According to EN 60947-5-2
Continuous current I _s	$\leq 200\text{ mA}$
Cable material	PUR
Short-circuit protection	✓
Shock and vibration resistance	30 g, 11 ms / 10 ... 55 Hz, 1 mm
Ambient operating temperature	-25 °C ... +70 °C
Housing material	Zinc diecast, GD Zn
Sensing face material	Plastic, PA12
UL File No.	E191603

¹⁾ Of V_s.²⁾ At I_s max.³⁾ Supply voltage U_s and constant ambient temperature T_a.⁴⁾ Of S_r.

SAFETY-RELATED PARAMETERS

MTTF _D	1,208 years
DC _{avg}	0%
T _M (mission time)	20 years

REDUCTION FACTORS

Note	The values are reference values which may vary
Stainless steel (V2A, 304)	Approx. 0.7
Aluminum (Al)	Approx. 0.4
Copper (Cu)	Approx. 0.3
Brass (Br)	Approx. 0.4

INSTALLATION NOTE

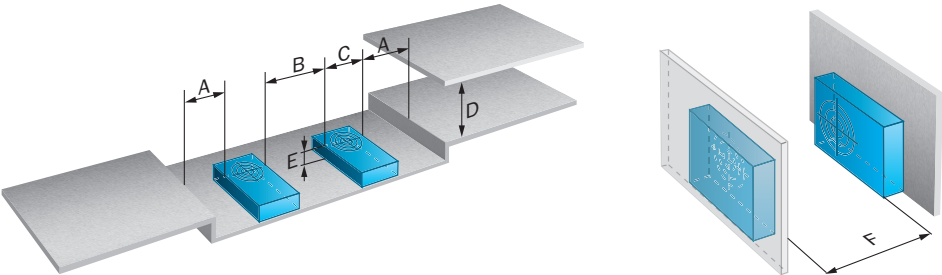
Remark	Associated graphic see "Installation"
A	0 mm
B	20 mm
C	20 mm
D	21 mm
E	0 mm
F	60 mm

CERTIFICATES

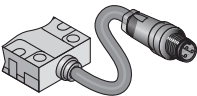
EU declaration of conformity	✓
China RoHS	✓

China Compulsory Product Certification (CCC) exempt	✓
cULus certificate	✓

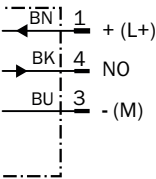
INSTALLATION NOTE

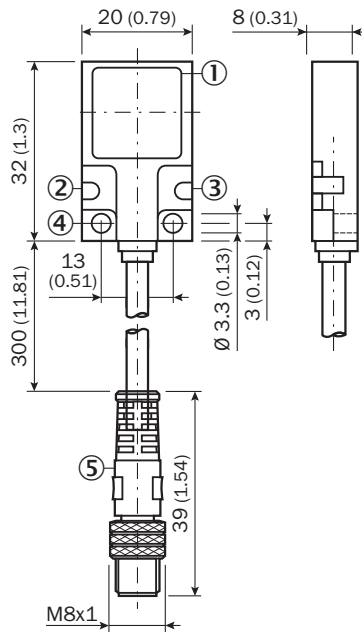


CONNECTION TYPE



CONNECTION DIAGRAM CD-002



DIMENSIONAL DRAWING IQ20, CABLE WITH M8 MALE CONNECTOR, 3-PIN

Dimensions in mm (inch)

- ① Sensing face
- ② operational status LED, green
- ③ LED output state, yellow
- ④ fixing hole
- ⑤ Connection

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/6042043



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SICK AT A GLANCE

SICK is a leading global technology company for intelligent sensors and integrated solutions in industrial automation. Our technologies set benchmarks, making your industrial processes more efficient, safer and more sustainable – both in logistics and manufacturing operations.

SICK combines sensor intelligence with industry expertise and certified consulting services. We provide the ideal foundation for scalable as well as tailor-made automation solutions and create added value along the entire value chain. Our close partnerships with our customers are more than just a promise: Together, we optimize productivity, improve quality, protect health and safety, and help build a sustainable future. All with empathy and trust.

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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