



DATA SHEET

IQ20-07BPPDQ0S

IQV
Inductive proximity sensors

SICK

Sensor Intelligence



INDUCTIVE PROXIMITY SENSORS

IQ20-07BPPDQ0S

ORDERING INFORMATION

Type	part no.
IQ20-07BPPDQ0S	6042045

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 M12 male connector, 4-pin, 0.3 m
Switching output	PNP
Switching output detail	PNP
Output function	Complementary
Electrical wiring	DC 4-wire
Enclosure rating	IP67 ¹⁾

¹⁾ According to EN 60529.

MECHANICS/ELECTRONICS

Supply voltage	10 V DC ... 30 V DC
Ripple	≤ 10 % ¹⁾
Voltage drop	< 2.5 V ²⁾
Time delay before availability	≤ 20 ms
Hysteresis	1 % ... 15 %

¹⁾ Of V_s.

²⁾ At I_a max.

³⁾ Supply voltage U_s and constant ambient temperature Ta.

⁴⁾ Of Sr.

Reproducibility	$\pm 5\%$ ³⁾ ⁴⁾
Temperature drift (of S _r)	$\pm 10\%$
EMC	According to EN 60947-5-2
Continuous current I _a	$\leq 200\text{ mA}$
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

¹⁾ Of V_U.²⁾ At I_a max.³⁾ Supply voltage U_U and constant ambient temperature Ta.⁴⁾ Of Sr.

SAFETY-RELATED PARAMETERS

MTTF _D	1,080 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

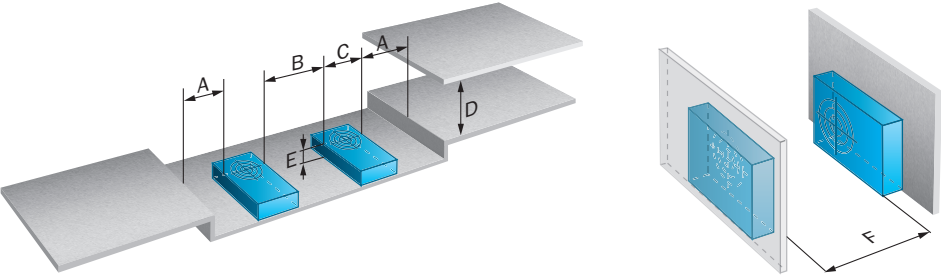
INSTALLATION NOTE

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

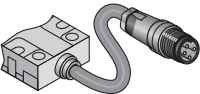
CERTIFICATES

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

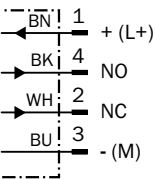
INSTALLATION NOTE



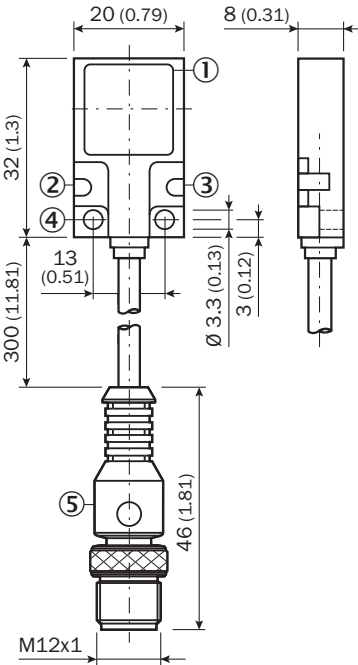
CONNECTION TYPE



CONNECTION DIAGRAM CD-006



DIMENSIONAL DRAWING IQ20, CABLE WITH M12 MALE CONNECTOR, 4-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/6042045



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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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