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DATA SHEET

IQ40-40NPSKC0KS02

IQG
Inductive proximity sensors

SICK Sensor Intelligence



INDUCTIVE PROXIMITY SENSORS

IQ40-40NPSKC0KS02

ORDERING INFORMATION

Type	part no.
IQ40-40NPSKC0KS02	1135438

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

DETAILED TECHNICAL DATA

FEATURES

Housing	Rectangular
Housing	Short-body
Dimensions (W x H x D)	40 mm x 40 mm x 66 mm
Sensing range S_n	40 mm
Safe sensing range S_a	32.4 mm
Installation type	Non-flush
Switching frequency	7.5 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	IP67, IP68, IP69K
Special applications	Difficult application conditions
Items supplied	Push-lock mounting system (1x)

MECHANICS/ELECTRONICS

Supply voltage	10 V DC ... 30 V DC
Ripple	≤ 10 V_{pp} [1]
Voltage drop	≤ 2 V
Time delay before availability	≤ 50 ms
Hysteresis	3 % ... 15 % [2]

[1] Of Ub.

[2] Of S_r.

[3] Reference voltage: 50 V DC.

Reproducibility	≤ 6 %
Temperature drift (of S_r)	± 10 %
Continuous current I_a	≤ 200 mA
No load current	12.5 mA
Short-circuit protection	✓
Power-up pulse protection	✓
Shock and vibration resistance	30 g, 11 ms / 10 ... 55 Hz, 1 mm
Ambient operating temperature	–25 °C ... +85 °C
Ambient temperature, storage	–40 °C ... +85 °C
Housing material	Plastic, PA 66
Sensing face material	Plastic, PA 66
Tightening torque, max.	1.8 Nm
Protection class	II [3]
UL File No.	E348498

[1] Of Ub.

[2] Of S_r.

[3] Reference voltage: 50 V DC.

SAFETY-RELATED PARAMETERS

$MTTF_D$	1,125 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. 0.8
Aluminum (Al)	Approx. 0.34
Copper (Cu)	Approx. 0.27
Brass (Br)	Approx. 0.38

INSTALLATION NOTE

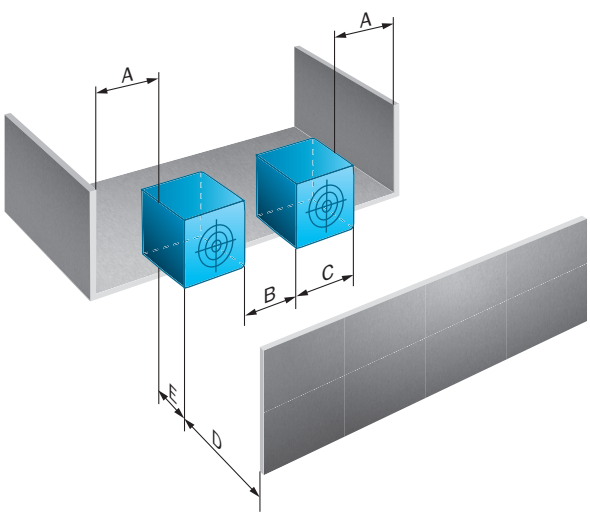
Remark	Associated graphic see "Installation"
A	42 mm
B	80 mm
C	40 mm
D	120 mm
E	40 mm
F	135 mm

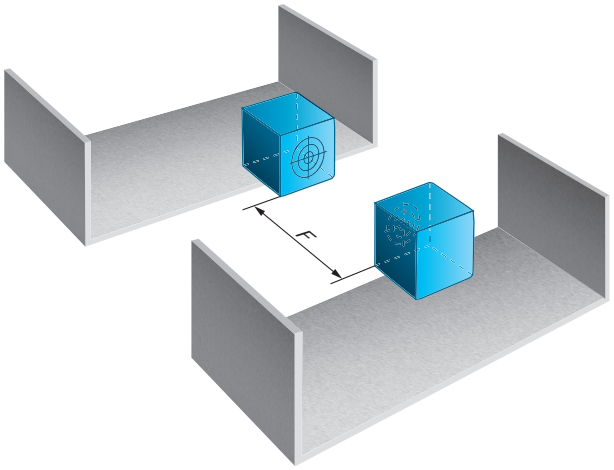
CERTIFICATES

EU declaration of conformity	✓
UK declaration of conformity	✓
ACMA declaration of conformity	✓
Moroccan declaration of conformity	✓
China RoHS	✓

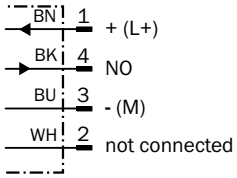
China Compulsory Product Certification (CCC) exempt	✓
cULus certificate	✓

INSTALLATION NOTE

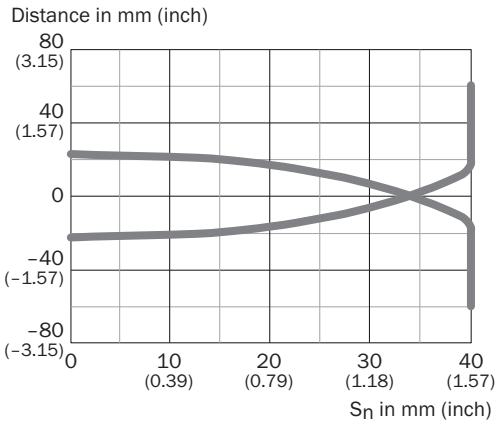




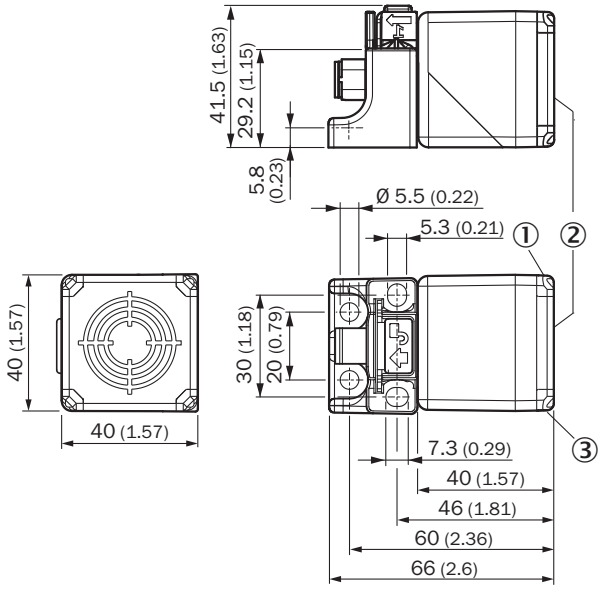
CONNECTION DIAGRAM CD-011



RESPONSE DIAGRAM



DIMENSIONAL DRAWING IQG SHORT-BODY HOUSING



Dimensions in mm (inch)
① LED output state, yellow
② Sensing face
③ operational status LED, green

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/1135438

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SICK AT A GLANCE

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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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