Product data sheet

IQ40-40NNPKC0K

IQG

INDUCTIVE PROXIMITY SENSORS

SICK
Sensor Intelligence.

Ordering information

Type	Part no.
IQ40-40NNPKC0K	1071864

Included in delivery: BEF-KH-IQ40 (1)

Other models and accessories ➜ 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	100 Hz
Connection type	Male connector M12, 4-pin
Switching output	NPN
Output function	Complementary
Electrical wiring	DC 4-wire
Enclosure rating	IP67, IP68, IP69K
Special applications	Difficult application conditions

Mechanics/electronics

Supply voltage	10 V DC ... 30 V DC
Ripple	≤ 10 V_{pp} [1]
Voltage drop	≤ 2 V
Current consumption	20 mA [2]
Time delay before availability	≤ 200 ms
Hysteresis	3 % ... 15 % [3]
Reproducibility	≤ 6 %
Temperature drift (of S_r)	± 10 %
Continuous current I_a	≤ 200 mA

[1] Of Ub.
[2] Without load.
[3] Of S_r.
[4] Reference voltage: 50 V DC.

Short-circuit protection	✓
Reverse polarity 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 storage temperature	–40 °C ... +85 °C
Housing material	Plastic, PA 66
Sensing face material	Plastic, PA 66
Tightening torque, max.	1.8 Nm
Items supplied	Push-lock mounting system (1x)
Protection class	II [4]
UL File No.	E348498

[1] Of Ub.
[2] Without load.
[3] Of S_r.
[4] Reference voltage: 50 V DC.

Safety-related parameters

$MTTF_D$	1,406 years
DC_{avg}	0%

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

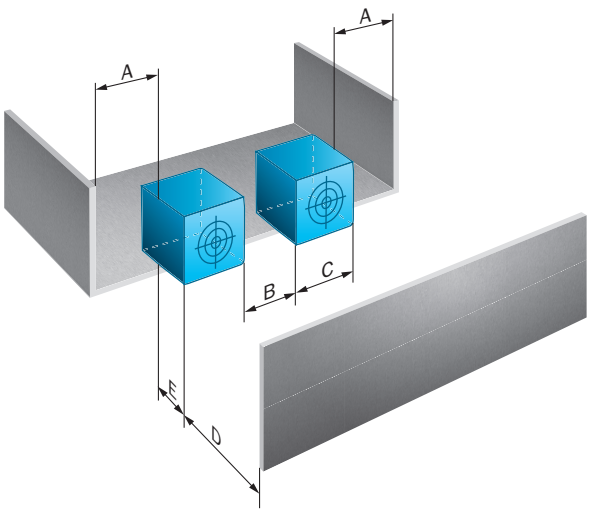
Remark	Associated graphic see "Installation"
A	42 mm
B	150 mm
C	40 mm
D	120 mm
E	40 mm
F	150 mm

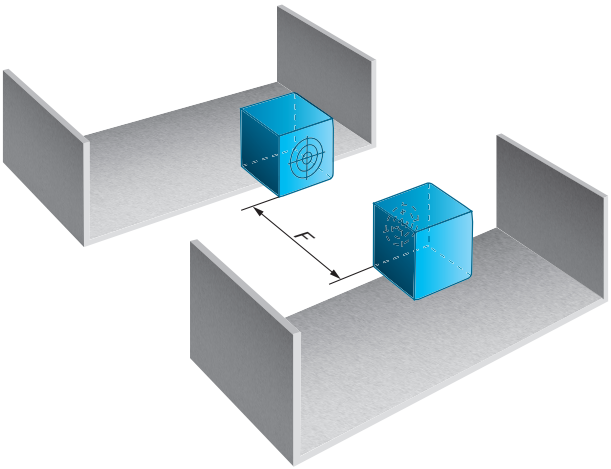
Classifications

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
ETIM 5.0	EC002714
ETIM 6.0	EC002714
ETIM 7.0	EC002714
UNSPSC 16.0901	39122230

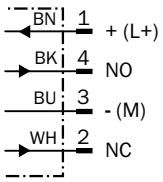
Installation note





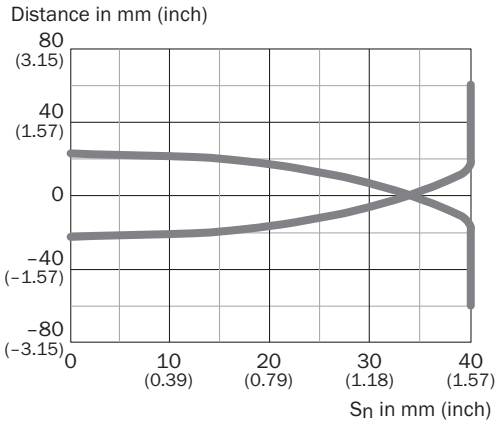
Connection diagram

Cd-009



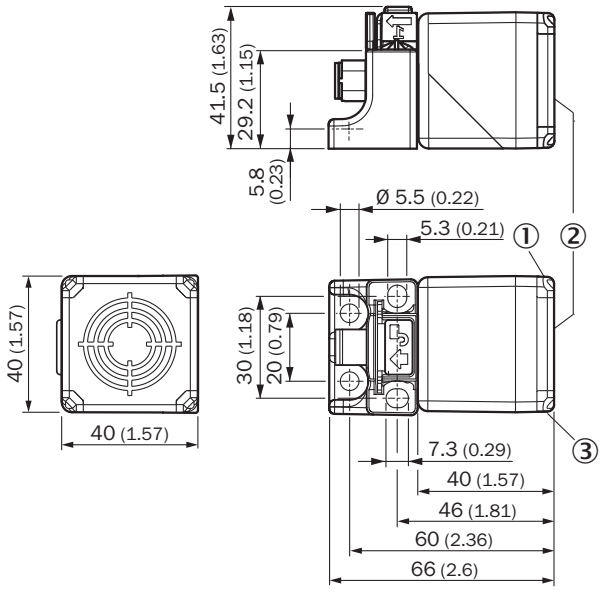
Characteristic curve

IQ40-40Nxxxxx



Dimensional drawing (Dimensions in mm (inch))

IQG Short-body housing



① LED output state, yellow
② Sensing face
③ Operational status LED, green

Recommended accessories

Other models and accessories ➜ www.sick.com/IQG

	Brief description	Type	Part no.
Plug connectors and cables			
	Head A: female connector, M12, 4-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 5 m	YF2A14-050VB3XLEAX	2096235
	Head A: female connector, M12, 4-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 5 m	YG2A14-050VB3XLEAX	2095897
	Head A: female connector, M12, 4-pin, straight Head B: - Cable: unshielded	DOS-1204-G	6007302
	Head A: male connector, M12, 4-pin, straight Head B: - Cable: unshielded	STE-1204-G	6009932

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