

IQ40-40NDSKC0K

IQG

INDUCTIVE PROXIMITY SENSORS

SICK
Sensor Intelligence.



Ordering information

Type	part no.
IQ40-40NSKC0K	1088280

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	150 Hz
Connection type	Male connector M12, 2-pin
Output function	NO
Electrical wiring	DC 2-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	$\leq 10 V_{pp}^{1)}$
Voltage drop	$\leq 4 V^{2)}$ $\leq 4.5 V^{3)}$
Time delay before availability	< 200 ms
Hysteresis	1 % ... 15 % ⁴⁾

¹⁾ Of U_B .

²⁾ At $I_a = 30 \text{ mA}$.

³⁾ At $I_a \text{ max.}$

⁴⁾ Of S_r .

⁵⁾ Supply voltage U_B and constant ambient temperature T_a .

⁶⁾ Reference voltage: 50 V DC.

Reproducibility	$\leq 2 \% ^{5)}$
Temperature drift (of S_r)	$\pm 20 \%$
Continuous current I_a	$\leq 100 \text{ mA}$
Off-state current	$\leq 0.8 \text{ mA}$
Minimum load current	$\geq 3 \text{ mA}$
Short-circuit protection	✓
Power-up pulse protection	✓
Shock and vibration resistance	30 g, 11 ms / 10 ... 55 Hz, 1 mm
Ambient operating temperature	$-25 \text{ }^{\circ}\text{C} \dots +85 \text{ }^{\circ}\text{C}$
Ambient temperature, storage	$-40 \text{ }^{\circ}\text{C} \dots +85 \text{ }^{\circ}\text{C}$
Housing material	Plastic, PA 66
Sensing face material	Plastic, PA 66
Tightening torque, max.	1.8 Nm
Protection class	II ⁶⁾
UL File No.	E348498

1) Of U_b .

2) At $I_a = 30 \text{ mA}$.

3) At $I_a \text{ max.}$

4) Of S_r .

5) Supply voltage U_B and constant ambient temperature T_a .

6) 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. 0.7
Aluminum (Al)	Approx. 0.3
Copper (Cu)	Approx. 0.3
Brass (Br)	Approx. 0.4

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

Certificates

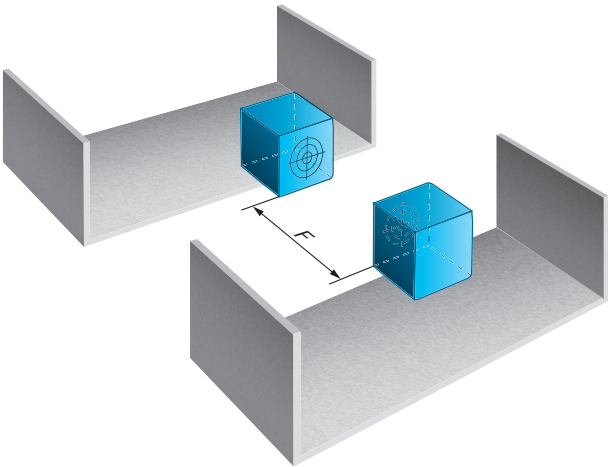
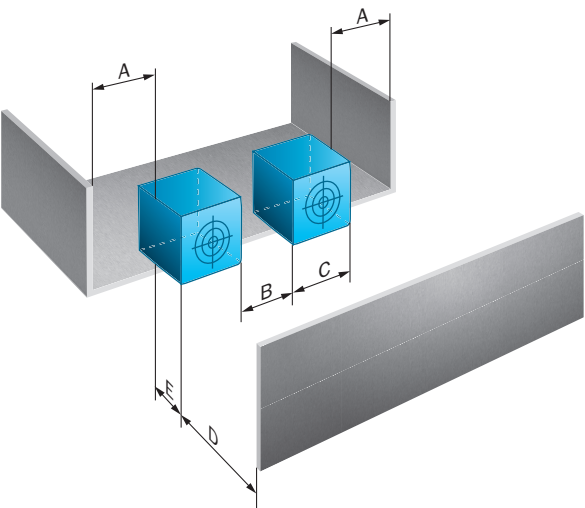
EU declaration of conformity	✓
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UK declaration of conformity	✓
ACMA declaration of conformity	✓
Moroccan declaration of conformity	✓
China RoHS	✓
cULus certificate	✓

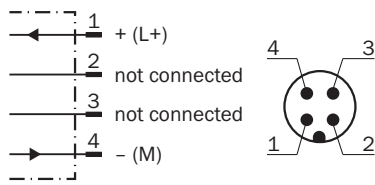
Classifications

ECLASS 5.0	27270101
ECLASS 5.1.4	27270101
ECLASS 6.0	27270101
ECLASS 6.2	27270101
ECLASS 7.0	27270101
ECLASS 8.0	27270101
ECLASS 8.1	27270101
ECLASS 9.0	27270101
ECLASS 10.0	27270101
ECLASS 11.0	27270101
ECLASS 12.0	27274001
ETIM 5.0	EC002714
ETIM 6.0	EC002714
ETIM 7.0	EC002714
ETIM 8.0	EC002714
UNSPSC 16.0901	39122230

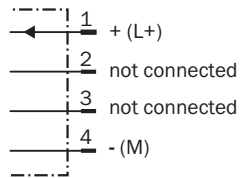
Installation note



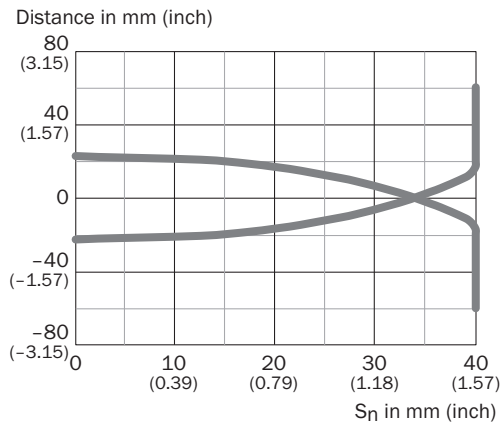
Connection diagram Cd-443



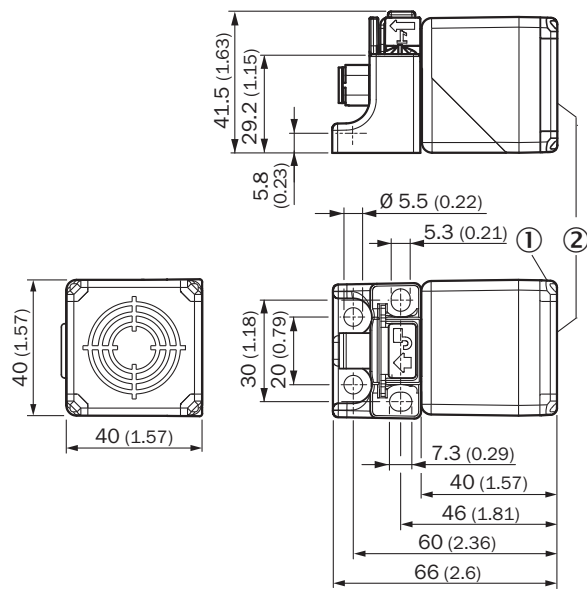
Connection diagram Cd-439



Response diagram








Dimensional drawing IQ40-xxxDxxCxK



Dimensions in mm (inch)
① LED output state, yellow
② Sensing face

Recommended accessories

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

	Brief description	Type	part no.
connectors and cables			
	<ul style="list-style-type: none"> Connection type head A: Female connector, M12, 4-pin, straight, A-coded Description: Unshielded Connection systems: Screw-type terminals Permitted cross-section: ≤ 0.75 mm² 	DOS-1204-G	6007302
	<ul style="list-style-type: none"> Connection type head A: Male connector, M12, 4-pin, straight, A-coded Description: Unshielded Connection systems: Screw-type terminals Permitted cross-section: ≤ 0.75 mm² 	STE-1204-G	6009932
	<ul style="list-style-type: none"> Connection type head A: Female connector, M12, 4-pin, straight, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 5 m, 4-wire, PVC Description: Sensor/actuator cable, unshielded Application: Zones with chemicals, Uncontaminated zones 	YF2A14-050VB3XLEAX	2096235
	<ul style="list-style-type: none"> Connection type head A: Female connector, M12, 4-pin, angled, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 5 m, 4-wire, PVC Description: Sensor/actuator cable, unshielded Application: Zones with chemicals, Uncontaminated zones 	YG2A14-050VB3XLEAX	2095897
	<ul style="list-style-type: none"> Connection type head A: Female connector, M12, 4-pin, straight, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 5 m, 4-wire, PUR, halogen-free Description: Sensor/actuator cable, unshielded Application: Uncontaminated zones, Zones with oils and lubricants, Robot, Drag chain operation 	YF2A14-050UB3XLEAX	2095608

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:

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