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Product data sheet



IQ40-40NDSKC0K

IQG

INDUCTIVE PROXIMITY SENSORS

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Sensor Intelligence.

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IQ40-40NDSKC0K | IQG

INDUCTIVE PROXIMITY SENSORS



Ordering information

Type	Part no.
IQ40-40NDSKC0K	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	≤ 10 V_{pp} [1]
Voltage drop	≤ 4 V [2] ≤ 4.5 V [3]
Time delay before availability	< 200 ms
Hysteresis	1 % ... 15 % [4]
Reproducibility	≤ 2 % [5]
Temperature drift (of S_r)	± 20 %

[1] Of Ub.
[2] At I_a = 30 mA.
[3] At I_a max.
[4] Of S_r.
[5] Ub and Ta constant.
[6] Reference voltage: 50 V DC.

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Continuous current I_a	≤ 100 mA
Off-state current	≤ 0.8 mA
Minimum load current	≥ 3 mA
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 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 [6]
UL File No.	E348498

[1] Of Ub.
[2] At I_a = 30 mA.
[3] At I_a max.
[4] Of S_r.
[5] Ub and Ta constant.
[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

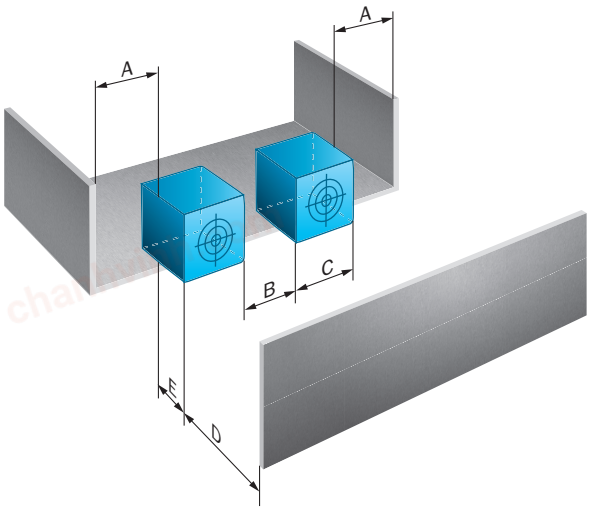
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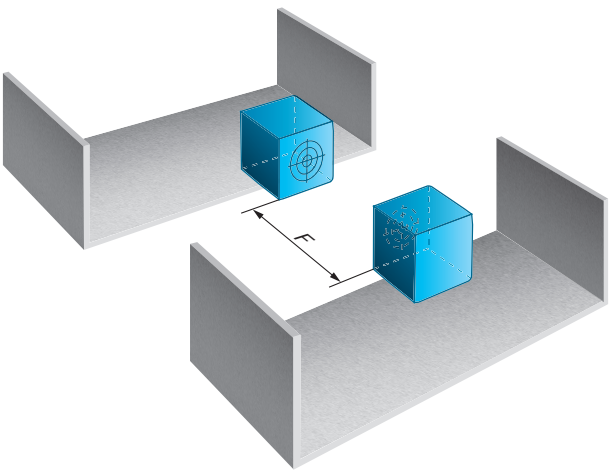
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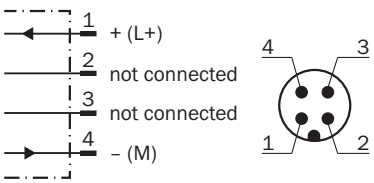
Installation note





Connection diagram

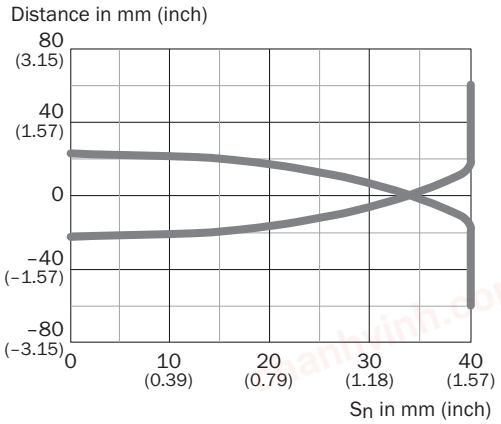
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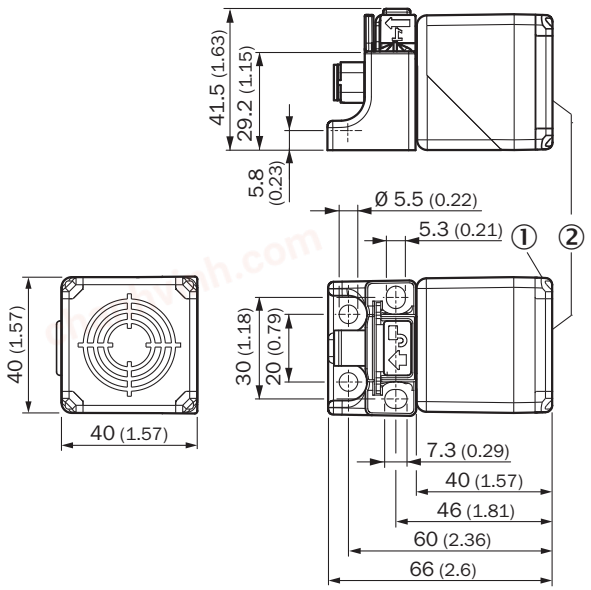
Characteristic curve

IQ40-40Nxxxxx



Dimensional drawing (Dimensions in mm (inch))

IQ40-xxxDxxCxK



① LED output state, yellow
② Sensing face

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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 Cable: unshielded	DOS-1204-G	6007302
	Head A: male connector, M12, 4-pin, straight Cable: unshielded	STE-1204-G	6009932

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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.”

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