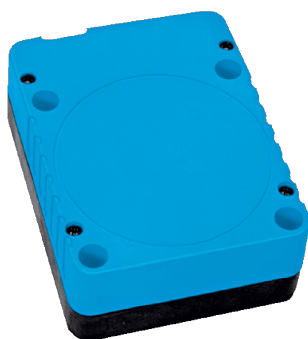


IQ80-60NUP-KK0

IQL

INDUCTIVE PROXIMITY SENSORS

SICK
Sensor Intelligence.



Ordering information

Type	Part no.
IQ80-60NUP-KK0	7902138

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



Detailed technical data

Features

Housing	Rectangular
Housing	Standard design
Dimensions (W x H x D)	80 mm x 105 mm x 40 mm
Sensing range S_n	60 mm
Safe sensing range S_a	48.6 mm
Installation type	Non-flush
Switching frequency	4 Hz
Connection type	Terminal connection with M20 gland
Switching output	PNP / NPN
Output function	NC or NO
Output characteristic	Wire configurable
Electrical wiring	AC/DC 2-wire
Enclosure rating	IP65 ¹⁾

¹⁾ According to EN 60529.

Mechanics/electronics

Supply voltage	20 V AC/DC ... 250 V AC/DC
Voltage drop	≤ 6.5 V (AC)
Hysteresis	1 % ... 15 %

¹⁾ U_b and T_a constant.

²⁾ Of S_r .

³⁾ Repeatability (T_a not constant).

⁴⁾ AC (+50 °C).

⁵⁾ AC (+80 °C).

⁶⁾ DC.

⁷⁾ 20 ms / 0.5 Hz.

⁸⁾ Miniature fuse to IEC 60217-2 Sheet 1, ≤ 2 A (quick-blow).

⁹⁾ Control of small electromagnetic loads with holding currents < 200 mA.

¹⁰⁾ Control of solenoids.

Reproducibility	≤ 10 % ^{1) 2) 3)}
Temperature drift (of S_r)	± 10 %
EMC	As per EN 55011, class B According to EN 60947-5-2
Continuous current I_a	≤ 350 mA ⁴⁾ ≤ 250 mA ⁵⁾ ≤ 100 mA ⁶⁾
Off-state current	≤ 2.5 mA (AC 250 V)
Minimum load current	> 5 mA
Short-time withstand current	2.2 A ⁷⁾
Cable gland clamping area	M20 1.5
Wire size	≤ 2.5 mm ²
Short-circuit protection	⁸⁾
Shock and vibration resistance	30 g, 11 ms / 10 ... 55 Hz, 1 mm
Ambient operating temperature	-25 °C ... +80 °C
Housing material	Plastic, PPE
Sensing face material	Plastic, PPE
Protection class	II
Rated insulation voltage U_i	250 V AC
Usage category	AC-140 ⁹⁾ DC-13 ¹⁰⁾
Contamination rating	3
Rated impulse withstand voltage	4 kV

¹⁾ U_b and T_a constant.

²⁾ Of S_r.

³⁾ Repeatability (T_a not constant).

⁴⁾ AC (+50 °C).

⁵⁾ AC (+80 °C).

⁶⁾ DC.

⁷⁾ 20 ms / 0.5 Hz.

⁸⁾ Miniature fuse to IEC 60217-2 Sheet 1, ≤ 2 A (quick-blow).

⁹⁾ Control of small electromagnetic loads with holding currents < 200 mA.

¹⁰⁾ Control of solenoids.

Safety-related parameters

MTTF_D	736 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. 0.2
Brass (Br)	Approx. 0.4

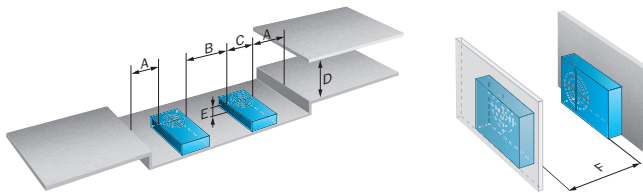
Installation note

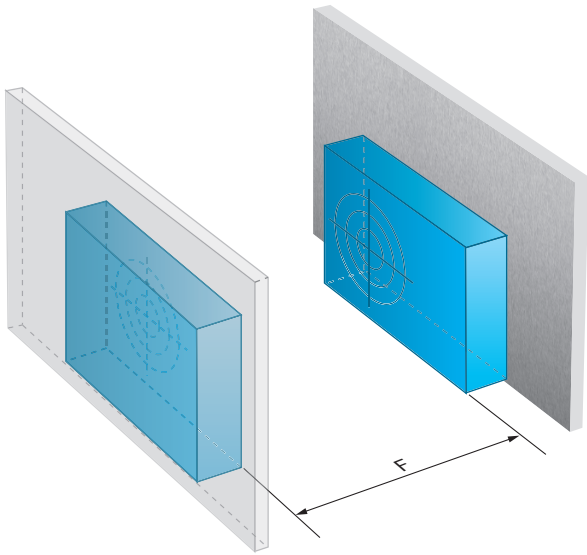
Remark	Associated graphic see "Installation"
A	160 mm
B	160 mm
C	80 mm
D	150 mm
E	40 mm
F	480 mm

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
eCl@ss 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



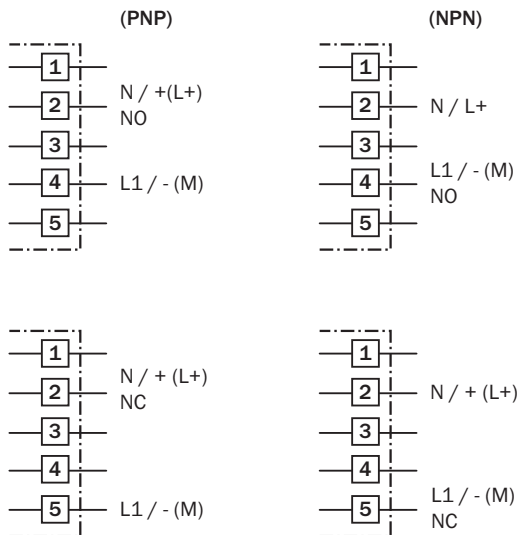


Connection type



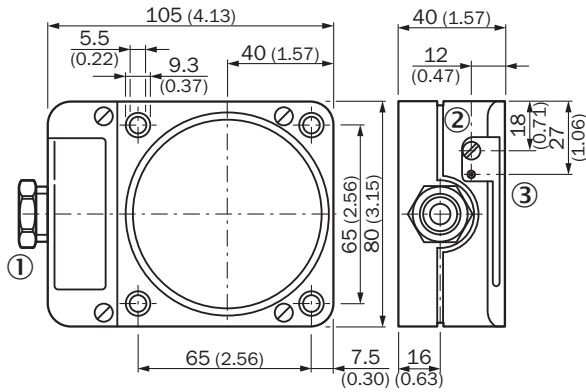
Connection diagram

Cd-025



Dimensional drawing (Dimensions in mm (inch))

IQ80, AC/DC 2-wire



- ① Connection
- ② Potentiometer
- ③ Display LED

SICK AT A GLANCE

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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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