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DATA SHEET

IM04-01BNSVU2K

IMM
Inductive proximity sensors

SICK Sensor Intelligence



Illustration may differ

INDUCTIVE PROXIMITY SENSORS

IM04-01BNSVU2K

ORDERING INFORMATION

Type	part no.
IM04-01BNSVU2K	6058028

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



DETAILED TECHNICAL DATA

FEATURES

Housing	Metric
Housing	Short-body
Thread size	M4 x 0.5
Diameter	Ø 4 mm
Sensing range S_n	1 mm
Safe sensing range S_a	0.81 mm
Installation type	Flush
Switching frequency	8,000 Hz
Connection type	Cable, 3-wire, 2 m ¹⁾
Switching output	NPN
Switching output detail	NPN
Output function	NO
Electrical wiring	DC 3-wire
Enclosure rating	IP67 ²⁾
Items supplied	Mounting nut, V2A stainless steel (2x) Washer, V2A stainless steel, with locking teeth (2x)

¹⁾ Do not bend below 0 °C.

²⁾ According to EN 60529.

MECHANICS/ELECTRONICS

Supply voltage	10 V DC ... 30 V DC
Ripple	$\leq 20\%$ ¹⁾
Voltage drop	$\leq 2\text{ V}$ ²⁾
Time delay before availability	$\leq 10\text{ ms}$
Hysteresis	1% ... 10%
Reproducibility	$\leq 2\%$ ³⁾
Temperature drift (of S ₁)	$\pm 10\%$
EMC	EN 60947-5-2 IEC 61000-4-2: (Testlevel 2) IEC 61000-4-4: (Testlevel 3)
Continuous current I _a	$\leq 100\text{ mA}$
Cable material	PUR
Conductor size	0.055 mm ²
Cable diameter	Ø 2.6 mm
Short-circuit protection	✓
Shock and vibration resistance	30 g, 11 ms / 10 ... 55 Hz, 1 mm
Ambient operating temperature	-25 °C ... +70 °C
Housing material	Stainless steel V2A, DIN 1.4305 / AISI 303
Sensing face material	Plastic, POM
Housing length	12 mm
Thread length	9 mm
Tightening torque, max.	$\leq 0.8\text{ Nm}$
UL File No.	NRKH.E191603

¹⁾ Or V_s.

²⁾ With I_a = 100 mA.

³⁾ Supply voltage U_s and constant ambient temperature T_a.

SAFETY-RELATED PARAMETERS

MTTF _D	186 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. 0.5
Copper (Cu)	Approx. 0.45
Brass (Br)	Approx. 0.6

INSTALLATION NOTE

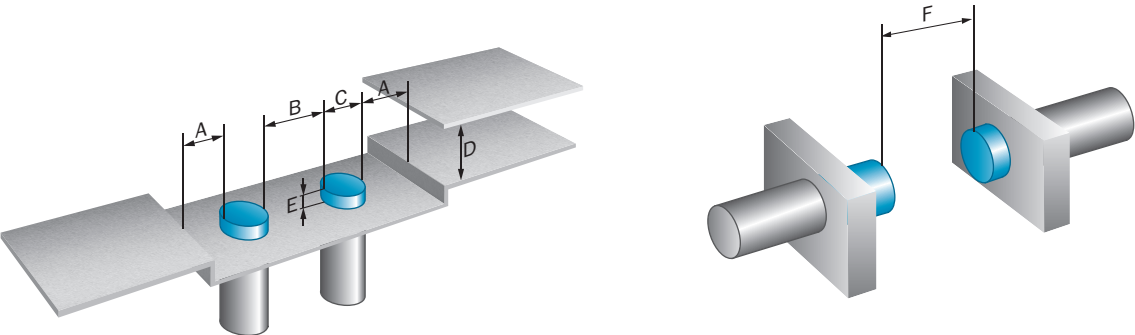
Remark	Associated graphic see "Installation"
A	0.5 mm
B	1 mm
C	4 mm
D	3 mm
E	0 mm

F	8 mm
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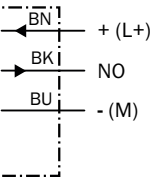
CERTIFICATES

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

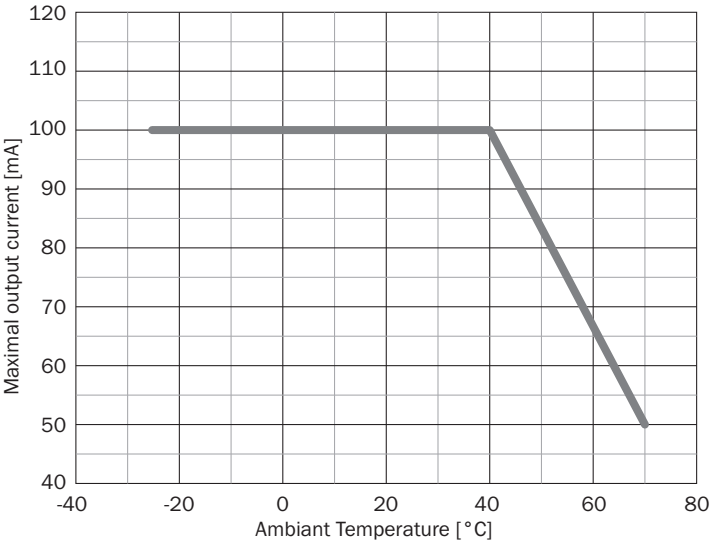
INSTALLATION NOTE FLUSH INSTALLATION

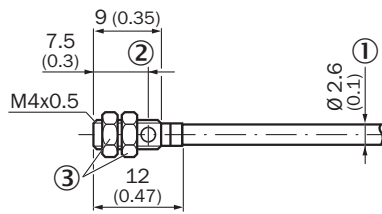


CONNECTION DIAGRAM CD-001



TEMPERATURE DERATING



DIMENSIONAL DRAWING ULTRASHORT, FLUSH, CABLE

Dimensions in mm (inch)

- ① Connection
- ② Display LED
- ③ fastening nuts (2 x); 6 mm hex, stainless steel

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/6058028



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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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