

IM30-10BUS-ZU0

IMW

INDUCTIVE PROXIMITY SENSORS



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Ordering information

Туре	part no.
IM30-10BUS-ZU0	7902126

Included in delivery: BEF-MU-M30 (1)

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

Illustration may differ



Detailed technical data

Features

Housing	Metric
Housing	Standard design
Thread size	M30 x 1.5
Diameter	Ø 30 mm
Sensing range S _n	10 mm
Safe sensing range S _a	8.1 mm
Installation type	Flush
Switching frequency	25 Hz ¹⁾ 50 Hz ²⁾
Connection type	Cable, 2-wire, 2 m
Output function	NO
Electrical wiring	AC/DC 2-wire
Enclosure rating	IP67 ³⁾
Items supplied	Mounting nut, brass, nickel-plated (2x)

¹⁾ AC.

²⁾ DC.

 $^{^{}m 3)}$ According to EN 60529.

Mechanics/electronics

Voltage drop ≤ 6.5 V AC, ≤ 6 V DC Time delay before availability ≤ 8 ms Hysteresis 1 % 15 % Reproducibility ≤ 10 % ¹¹ 20 30 Temperature drift (of S₁) ± 10 % EMC According to EN 60947-5-2 As per EN 55011, class 8 Continuous current I₀ ≤ 350 mA ⁴¹ ≤ 250 mA ²0 ≤ 250 mA ²0 Short-time withstand current ≥ 5 mA Short-time withstand current 2.2 A ²¹ Cable material PUR/PVC Conductor size 0.5 mm² Short-tircuit protection ✓ Short-tircuit protection ✓ Short articult protection ✓ Shock and vibration resistance 30 g.1 ms / 10 55 Hz, 1 mm Ambient operating temperature -25 °C +70 °C Housing face material Piastic, PBT Housing le	Supply voltage	20 V AC/DC 250 V AC/DC
Hysteresis 1 1 % 15 % Reproducibility 5 10 % 13 Temperature drift (of S₁) ± 10 % EMC According to EN 60947-5-2 As per EN 55011, class B Continuous current I₂ 5350 mA ⁴ 5250 mA ⁴ 5250 mA 6⟩ 5100 mA ⁵⟩ 5100 mA ⁵⟩ 6100 mA €⟩ Off-state current 52.5 mA (AC 250 V) 51.3 mA (AC 110 V) 50.8 mA (DC 24 V) Minimum load current 2.2 A T⟩ Cable material PUR/PVC Conductor size 0.5 mm² Short-circuit protection 8⟩ Power-up pulse protection 5/ Shock and vibration resistance 30 g, 11 ms / 10 55 Hz, 1 mm Ambient operating temperature -25 °C +70 °C Housing material Brass, nickel-plated Sensing face material Plastic, PBT Housing length 81 mm Thread length 59 mm Tightening torque, max. 550 Nm Protection class II Rated insulation voltage U₁ 250 V AC Usage category Ac 140 °S DC 13 ¹0⟩	Voltage drop	≤ 6.5 V AC, ≤ 6 V DC
Reproducibility ≤ 10 % ¹¹ 2) 3) Temperature drift (of S ₂) ± 10 % EMC According to EN 60947-5-2 As per EN 55011, class B Continuous current I₃ ≤ 350 mA ³¹ ≤ 250 mA ³¹ ≤ 250 mA ³¹ ≤ 100 mA ²¹ Off-state current ≤ 2.5 mA (AC 250 V) ≤ 1.3 mA (AC 110 V) < 0.8 mA (DC 24 V) Minimum load current ≥ 5 mA Short-time withstand current 2.2 A ²¹ Cable material PUR/PVC Conductor size 0.5 mm² Short-circuit protection 5¹ Power-up pulse protection ✓ Shock and vibration resistance 30 g. 11 ms / 10 55 Hz, 1 mm Ambient operating temperature -25 °C +70 °C Housing material Brass, nickel-plated Sensing face material Plastic, PBT Housing length 59 mm Tightening torque, max. ≤ 50 Nm Protection class II Rated insulation voltage U₁ 250 V AC Usage category AC.140 ³¹	Time delay before availability	≤ 8 ms
Temperature drift (of S₂) ± 10 % EMC According to EN 60947-5-2 As per EN 55011, class B Continuous current I₀ ≤ 350 mA ⁴) ≤ 250 mA °) ≤ 100 mA °) Off-state current ≤ 2.5 mA (AC 250 V) ≤ 1.3 mA (AC 110 V) ≤ 0.8 mA (DC 24 V) Minimum load current ≥ 2.5 mA Short-time withstand current 2.2 A T¹ Cable material PUR/PVC Conductor size 0.5 mm² Short-circuit protection 8) Power-up pulse protection	Hysteresis	1 % 15 %
EMC According to EN 60947-5-2 As per EN 55011, class B Contlinuous current I _a ≤ 350 mA ⁴⁾ ≤ 250 mA ⁵⁾ ≤ 100 mA ⁶⁾ Off-state current ≤ 2.5 mA (AC 250 V) ≤ 1.3 mA (AC 110 V) ≤ 0.8 mA (DC 24 V) Minimum load current ≥ 5 mA Short-time withstand current 2.2 A ⁷⁾ Cable material PUR/PVC Conductor size 0.5 mm² Short-circuit protection 8) Power-up pulse protection Fower-up pulse protection Shock and vibration resistance 30 g. 11 ms / 10 55 Hz, 1 mm Ambient operating temperature + 25 °C +70 °C Housing material Brass, nickel-plated Sensing face material Housing length 1 mm Thread length 1 gm Tightening torque, max. Forection class II Rated insulation voitage U ₁ 250 V AC Usage category AC-140 ⁹⁾ DC-13 ¹⁰⁾	Reproducibility	2)
As per EN 55011, class B Continuous current I _a ≤ 350 mA ⁵¹ ≤ 100 mA ⁶¹ Off-state current ≤ 2.5 mA (AC 250 V) ≤ 1.3 mA (AC 110 V) ≤ 0.8 mA (DC 24 V) Minimum load current ≥ 5 mA Short-time withstand current 2.2 A ⁷¹ Cable material PUR/PVC Conductor size 0.5 mm² Short-circuit protection 8) Power-up pulse protection Shock and vibration resistance 30 g, 11 ms / 10 55 Hz, 1 mm Ambient operating temperature -25 °C +70 °C Housing material Brass, nickel-plated Sensing face material Plastic, PBT Housing length Thread length 59 mm Tightening torque, max. Protection class II Rated insulation voltage U ₁ 250 V AC Usage category AC-140 ⁹¹ DC-13 ¹⁰¹	Temperature drift (of S _r)	± 10 %
\$ 250 mA 5	EMC	<u> </u>
\$ 1.3 mA (AC 110 V) \$ 0.8 mA (DC 24 V)	Continuous current I _a	\leq 250 mA $^{5)}$
Short-time withstand current Cable material PUR/PVC Conductor size 0.5 mm² Short-circuit protection 8) Power-up pulse protection Shock and vibration resistance Ambient operating temperature -25 °C +70 °C Housing material Brass, nickel-plated Sensing face material Plastic, PBT Housing length Thread length 59 mm 1 ightening torque, max. Protection class Rated insulation voltage U₁ Usage category AC-140 9) DC-13 10)	Off-state current	≤ 1.3 mA (AC 110 V)
Cable material Conductor size 0.5 mm² Short-circuit protection 8) Power-up pulse protection ✓ Shock and vibration resistance Ambient operating temperature -25 °C +70 °C Housing material Brass, nickel-plated Sensing face material Plastic, PBT Housing length Thread length 59 mm Tightening torque, max. Protection class Rated insulation voltage U _i Usage category AC.140 9) DC-13 10)	Minimum load current	≥ 5 mA
Conductor size Short-circuit protection Power-up pulse protection Shock and vibration resistance Ambient operating temperature -25 °C +70 °C Housing material Brass, nickel-plated Sensing face material Plastic, PBT Housing length 1 housing length 59 mm 59 mm Tightening torque, max. Protection class II Rated insulation voltage U₁ 250 V AC Usage category 0.5 mm² 30 g, 11 ms / 10 55 Hz, 1 mm -25 °C +70 °C Brass, nickel-plated 9 lastic, PBT 81 mm 59 mm 450 Nm Protection class II Rated insulation voltage U₁ 250 V AC Usage category AC-140 9) DC-13 10)	Short-time withstand current	$2.2 \text{ A}^{7)}$
Short-circuit protection Power-up pulse protection Shock and vibration resistance Ambient operating temperature -25 °C +70 °C Housing material Brass, nickel-plated Sensing face material Plastic, PBT Housing length 1 mm Thread length 59 mm Tightening torque, max. Protection class II Rated insulation voltage U _i Usage category AC-140 9) DC-13 10)	Cable material	PUR/PVC
Power-up pulse protection Shock and vibration resistance 30 g, 11 ms / 10 55 Hz, 1 mm -25 °C +70 °C Housing material Brass, nickel-plated Sensing face material Plastic, PBT Housing length 81 mm Thread length 59 mm ≤ 50 Nm Protection class II Rated insulation voltage U₁ Usage category AC-140 9) DC-13 10)	Conductor size	0.5 mm ²
Shock and vibration resistance 30 g, 11 ms / 10 55 Hz, 1 mm Ambient operating temperature -25 ° C +70 ° C Housing material Brass, nickel-plated Sensing face material Plastic, PBT Housing length 81 mm Thread length 59 mm Tightening torque, max. ≤ 50 Nm Protection class II Rated insulation voltage U _i 250 V AC Usage category AC-140 9) DC-13 10)	Short-circuit protection	8)
Ambient operating temperature -25 °C +70 °C Housing material Brass, nickel-plated Sensing face material Plastic, PBT Housing length 59 mm Tightening torque, max. Protection class II Rated insulation voltage U _i 250 ∨ AC Usage category AC-140 9) DC-13 10)	Power-up pulse protection	√
Housing material Sensing face material Plastic, PBT Housing length 81 mm Thread length 59 mm ≤ 50 Nm Protection class II Rated insulation voltage U _i Usage category AC-140 ⁹⁾ DC-13 ¹⁰⁾	Shock and vibration resistance	30 g, 11 ms / 10 55 Hz, 1 mm
Sensing face material Plastic, PBT Housing length 81 mm Thread length 59 mm Tightening torque, max. ≤ 50 Nm Protection class II Rated insulation voltage Ui 250 V AC Usage category AC-140 9) DC-13 10)	Ambient operating temperature	-25 °C +70 °C
Housing length 81 mm Thread length 59 mm Tightening torque, max. ≤ 50 Nm Protection class II Rated insulation voltage U _i 250 V AC Usage category AC-140 ⁹⁾ DC-13 ¹⁰⁾	Housing material	Brass, nickel-plated
Thread length 59 mm Tightening torque, max. ≤ 50 Nm Protection class II Rated insulation voltage U _i 250 V AC Usage category AC-140 ⁹⁾ DC-13 ¹⁰⁾	Sensing face material	Plastic, PBT
Tightening torque, max. ≤ 50 Nm Protection class II Rated insulation voltage U _i 250 V AC Usage category AC-140 ⁹⁾ DC-13 ¹⁰⁾	Housing length	81 mm
Protection class Rated insulation voltage U _i 250 V AC Usage category AC-140 ⁹⁾ DC-13 ¹⁰⁾	Thread length	59 mm
Rated insulation voltage U _i Usage category AC-140 ⁹⁾ DC-13 ¹⁰⁾	Tightening torque, max.	≤ 50 Nm
Usage category AC-140 ⁹⁾ DC-13 ¹⁰⁾	Protection class	II.
DC-13 ¹⁰⁾	Rated insulation voltage U _i	250 V AC
Contamination rating 3	Usage category	
	Contamination rating	3

 $^{^{1)}\,\}mbox{Supply}$ voltage $\mbox{U}_{\mbox{\footnotesize B}}$ and constant ambient temperature Ta.

²⁾ Of Sr.

³⁾ Repeatability (T_a not constant).

⁴⁾ AC (+50 °C).

⁵⁾ AC (+80 °C).

⁶⁾ DC.

 $^{^{7)}\,20~\}text{ms}\,/\,0.5~\text{Hz}.$

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

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

¹⁰⁾ Control of solenoids.

Rated impulse withstand voltage 4 kV

Safety-related parameters

MTTF _D	971 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 (AI)	Approx. 0.45
Copper (Cu)	Approx. 0.4

Installation note

Remark	Associated graphic see "Installation"
A	0 mm
В	30 mm
C	30 mm
D	30 mm
E	0 mm
F	80 mm

Certificates

EU declaration of conformity	1
UK declaration of conformity	1
ACMA declaration of conformity	1
Moroccan declaration of conformity	1
China RoHS	1
CCC 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

 $^{^{1)}}$ Supply voltage U_B and constant ambient temperature Ta.

²⁾ Of Sr.

³⁾ Repeatability (T_a not constant).

⁴⁾ AC (+50 °C).

⁵⁾ AC (+80 °C).

⁶⁾ DC.

 $^{^{7)}\,20\;\}text{ms}\,/\,0.5\;\text{Hz}.$

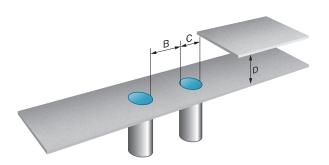
 $^{^{8)}}$ Miniature fuse to IEC 60217-2 Sheet 1, \leq 2 A (quick-blow).

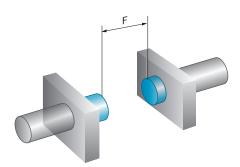
 $^{^{9)}}$ Control of small electromagnetic loads with holding currents < 200 mA.

 $^{^{10)}}$ Control of solenoids.

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 Flush installation





Connection type

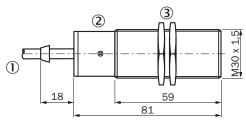


Connection diagram Cd-121



Miniature fuse to IEC60127-2 sheet 1, ≤ 2 A (fast acting)

Dimensional drawing IM30, AC/DC 2-wire, cable, flush



Dimensions in mm (inch)

- ① Connection
- ② Display LED
- 3 Fastening nuts (2x); width across 36, metal

Recommended accessories

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

	Brief description	Туре	part no.
Mounting sys	tems		
40	 Description: Mounting bracket for M30 sensors Material: Steel Details: Steel, zinc coated Items supplied: Without mounting hardware 	BEF-WN-M30	5308445
0	 Description: Mounting plate for M30 sensors Material: Steel Details: Steel, zinc coated Items supplied: Without mounting hardware 	BEF-WG-M30	5321871
	 Description: Plate N10 for universal clamp bracket, M30 Material: Steel, zinc diecast Details: Zinc plated steel (sheet), Zinc die cast (clamping bracket) Items supplied: Universal clamp (5322626), mounting hardware Usable for: M30 round sensors 	BEF-KHS-N10	2062372

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."

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