Data sheet



IM05-0B8PS-ZT1

IMM

INDUCTIVE PROXIMITY SENSORS

SICK
Sensor Intelligence.



Illustration may differ

Ordering information

Type	part no.
IM05-0B8PS-ZT1	6020110

Other models and accessories ➜ www.sick.com/IMM

Detailed technical data

Features

Housing	Metric
Housing	Standard design
Thread size	M5 x 0.5
Diameter	Ø 5 mm
Sensing range S_n	0.8 mm
Safe sensing range S_a	0.648 mm
Installation type	Flush
Switching frequency	5,000 Hz
Connection type	Connector M8, 3-pin
Switching output	PNP
Switching output detail	PNP
Output function	NO
Electrical wiring	DC 3-wire
Enclosure rating	IP67 [1]
Items supplied	Mounting nut, V2A stainless steel (2x) Washer, V2A stainless steel, with locking teeth (2x)

[1] According to EN 60529.

Mechanics/electronics

Supply voltage	10 V DC ... 30 V DC
Ripple	≤ 20 % [1]
Voltage drop	≤ 2 V [2]
Time delay before availability	≤ 10 ms
Hysteresis	1 % ... 10 %

[1] Of V_S.
[2] With Ia = 200 mA.
[3] Supply voltage U_B and constant ambient temperature Ta.

Reproducibility	≤ 1.5 % [3]
Temperature drift (of S_r)	≤ 10 %
EMC	EN 60947-5-2 IEC 61000-4-2: (Testlevel 2) IEC 61000-4-4: (Testlevel 2)
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	38 mm
Thread length	22 mm
Tightening torque, max.	≤ 1.5 Nm
UL File No.	NRKH.E191603

[1] Of V_S.

[2] With Ia = 200 mA.

[3] Supply voltage U_B and constant ambient temperature Ta.

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. 0.55

Installation note

Remark	Associated graphic see "Installation"
A	0.8 mm
B	0 mm
C	5 mm
D	2.4 mm
E	0 mm
F	7 mm

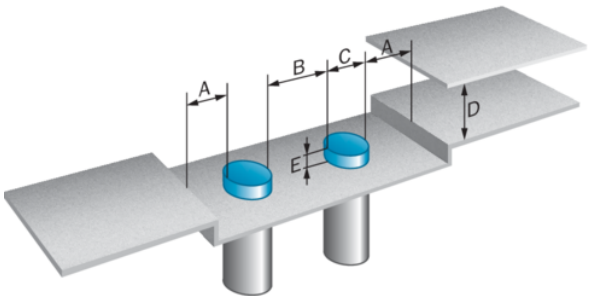
Certificates

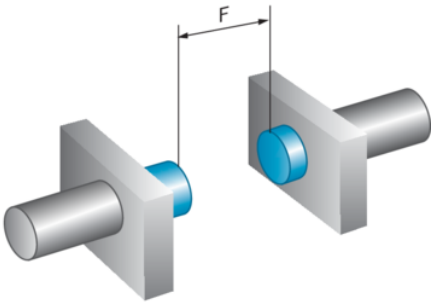
EU declaration of conformity	✓
UK declaration of conformity	✓
ACMA declaration of conformity	✓
Moroccan declaration of conformity	✓
China RoHS	✓

Classifications

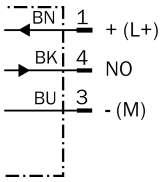
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ECLASS 5.1.4	27270101
ECLASS 6.0	27270101
ECLASS 6.2	27270101
ECLASS 7.0	27270101
ECLASS 8.0	27270101
ECLASS 8.1	27270101
ECLASS 9.0	27270101
ECLASS 10.0	27270101
ECLASS 11.0	27270101
ECLASS 12.0	27274001
ETIM 5.0	EC002714
ETIM 6.0	EC002714
ETIM 7.0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

Installation note Flush installation

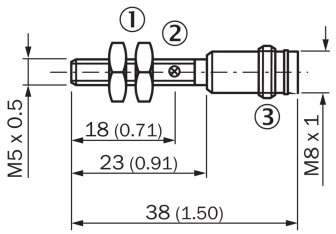




Connection diagram Cd-002



Dimensional drawing Standard-body, flush, connector



Dimensions in mm (inch)
① Connection
② Display LED
③ fastening nuts (2 x); 7 mm hex, stainless steel

Recommended accessories

Other models and accessories ➜ www.sick.com/IMM

	Brief description	Type	part no.
Mounting systems			
	• **Material:** Plastic • **Details:** Plastic (PA6) • **Items supplied:** Without mounting hardware • **Usable for:** Round sensors with 5 mm housing diameter without fixed stop	BEF-KH-M05	2101066

	Brief description	Type	part no.
connectors and cables			
	• **Connection type head A:** Female connector, M8, 3-pin, straight, A-coded • **Connection type head B:** Flying leads • **Signal type:** Sensor/actuator cable • **Cable:** 2 m, 3-wire, PVC • **Description:** Sensor/actuator cable, unshielded • **Application:** Zones with chemicals, Uncontaminated zones	YF8U13-020VA1XLEAX	2095860
	• **Connection type head A:** Female connector, M8, 3-pin, straight, A-coded • **Connection type head B:** Flying leads • **Signal type:** Sensor/actuator cable • **Cable:** 5 m, 3-wire, PUR, halogen-free • **Description:** Sensor/actuator cable, unshielded • **Application:** Uncontaminated zones, Zones with oils and lubricants, Robot, Drag chain operation	YF8U13-050UA1XLEAX	2094788
	• **Connection type head A:** Female connector, M8, 3-pin, straight, A-coded • **Connection type head B:** Flying leads • **Signal type:** Sensor/actuator cable • **Cable:** 5 m, 3-wire, PVC • **Description:** Sensor/actuator cable, unshielded • **Application:** Zones with chemicals, Uncontaminated zones	YF8U13-050VA1XLEAX	2095884
	• **Connection type head A:** Female connector, M8, 3-pin, straight, A-coded • **Connection type head B:** Flying leads • **Signal type:** Sensor/actuator cable • **Cable:** 10 m, 3-wire, PVC • **Description:** Sensor/actuator cable, unshielded • **Application:** Zones with chemicals, Uncontaminated zones	YF8U13-100VA1XLEAX	2095885
	• **Connection type head A:** Female connector, M8, 3-pin, angled, A-coded • **Connection type head B:** Flying leads • **Signal type:** Sensor/actuator cable • **Cable:** 2 m, 3-wire, PVC • **Description:** Sensor/actuator cable, unshielded • **Application:** Zones with chemicals, Uncontaminated zones	YG8U13-020VA1XLEAX	2096165
	• **Connection type head A:** Female connector, M8, 3-pin, angled, A-coded • **Connection type head B:** Flying leads • **Signal type:** Sensor/actuator cable • **Cable:** 5 m, 3-wire, PVC • **Description:** Sensor/actuator cable, unshielded • **Application:** Zones with chemicals, Uncontaminated zones	YG8U13-050VA1XLEAX	2096166
	• **Connection type head A:** Female connector, M8, 3-pin, angled, A-coded • **Connection type head B:** Flying leads • **Signal type:** Sensor/actuator cable • **Cable:** 10 m, 3-wire, PVC • **Description:** Sensor/actuator cable, unshielded • **Application:** Zones with chemicals, Uncontaminated zones	YG8U13-100VA1XLEAX	2096209
	• **Connection type head A:** Male connector, M8, 3-pin, straight, A-coded • **Description:** Unshielded • **Connection systems:** Screw-type terminals • **Permitted cross-section:** 0.14 mm² ... 0.5 mm²	STE-0803-G	6037322
	• **Connection type head A:** Female connector, M8, 3-pin, straight, A-coded • **Description:** Unshielded • **Connection systems:** Screw-type terminals • **Permitted cross-section:** 0.14 mm² ... 0.5 mm²	DOS-0803-G	7902077
	• **Connection type head A:** Female connector, M8, 3-pin, angled, A-coded • **Description:** Unshielded • **Connection systems:** Solder connection • **Permitted cross-section:** ≤ 0.25 mm²	DOS-0803-W	7902078
	• **Connection type head A:** Female connector, M8, 3-pin, straight, A-coded • **Connection type head B:** Male connector, M12, 3-pin, straight, A-coded • **Signal type:** Sensor/actuator cable • **Cable:** 2 m, 3-wire, PVC • **Description:** Sensor/actuator cable, unshielded • **Application:** Zones with chemicals, Uncontaminated zones	YF8U13-020VA1M2A13	2096605
	• **Connection type head A:** Female connector, M8, 3-pin, straight, A-coded • **Connection type head B:** Male connector, M12, 3-pin, straight, A-coded • **Signal type:** Sensor/actuator cable • **Cable:** 5 m, 3-wire, PVC	YF8U13-050VA1M2A13	2096606

	Brief description	Type	part no.
	• **Description:** Sensor/actuator cable, unshielded • **Application:** Zones with chemicals, Uncontaminated zones		
	• **Connection type head A:** Female connector, M8, 3-pin, straight, A-coded • **Connection type head B:** Flying leads • **Signal type:** Sensor/actuator cable • **Cable:** 0.6 m, 3-wire, PVC • **Description:** Sensor/actuator cable, unshielded • **Application:** Zones with chemicals, Uncontaminated zones	YF8U13-C60VA1XLEAX	2146368
	• **Connection type head A:** Female connector, M8, 3-pin, angled, A-coded • **Connection type head B:** Flying leads • **Signal type:** Sensor/actuator cable • **Cable:** 1 m, 3-wire, PVC • **Description:** Sensor/actuator cable, unshielded • **Application:** Zones with chemicals, Uncontaminated zones	YG8U13-010VA1XLEAX	2146371
	• **Connection type head A:** Female connector, M8, 3-pin, angled, A-coded • **Connection type head B:** Flying leads • **Signal type:** Sensor/actuator cable • **Cable:** 3 m, 3-wire, PVC • **Description:** Sensor/actuator cable, unshielded • **Application:** Zones with chemicals, Uncontaminated zones	YG8U13-030VA1XLEAX	2146372
	• **Connection type head A:** Female connector, M8, 3-pin, angled, A-coded • **Connection type head B:** Flying leads • **Signal type:** Sensor/actuator cable • **Cable:** 0.6 m, 3-wire, PVC • **Description:** Sensor/actuator cable, unshielded • **Application:** Zones with chemicals, Uncontaminated zones	YG8U13-C60VA1XLEAX	2146370
	• **Connection type head A:** Female connector, M8, 3-pin, straight, A-coded • **Connection type head B:** Male connector, M12, 3-pin, straight, A-coded • **Signal type:** Sensor/actuator cable • **Cable:** 1 m, 3-wire, PVC • **Description:** Sensor/actuator cable, unshielded • **Application:** Zones with chemicals, Uncontaminated zones	YF8U13-010VA1M2A13	2146381

SICK AT A GLANCE

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