IMI18-08BPSVU2S

IMI

INDUCTIVE PROXIMITY SENSORS

SICK
Sensor Intelligence.

IMI18-08BPSVU2S | IMI

INDUCTIVE PROXIMITY SENSORS
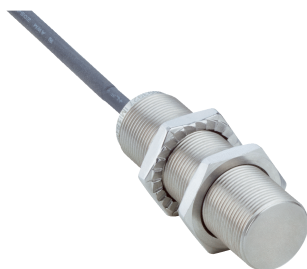
Ordering information

Type	Part no.
IMI18-08BPSVU2S	1093927

Included in delivery: BEF-MU-M18N (1)

Other models and accessories ➔ www.sick.com/IMI

Illustration may differ

Detailed technical data

Features

Housing	Metric
Thread size	M18 x 1
Diameter	Ø 18 mm
Sensing range S_n	8 mm
Safe sensing range S_a	6.48 mm
Installation type	Flush
Switching frequency	50 Hz
Connection type	Cable, 3-wire, 2 m
Switching output	PNP
Output function	NO
Electrical wiring	DC 3-wire
Enclosure rating	IP68, IP69K [1]
Special features	Sensing face made of stainless steel V2A, Resistant against coolant lubricants
Special applications	Zones with coolants and lubricants, Difficult application conditions
Items supplied	Mounting nut, V2A stainless steel, with locking teeth (2x)

[1] According to EN 60529.

Mechanics/electronics

Supply voltage	10 V DC … 30 V DC
Ripple	≤ 10 % [1]
Voltage drop	≤ 2 V [2]
Time delay before availability	≤ 300 ms
Hysteresis	1 % … 20 %

[1] Of V_S.
[2] With I max.
[3] Of Sr.

Reproducibility	≤ 2 % [3]
Temperature drift (of S_r)	≤ 10 %
EMC	According to EN 60947-5-2
Continuous current I_a	≤ 200 mA
No load current	≤ 10 mA
Cable material	PUR
Conductor size	0.34 mm²
Cable diameter	Ø 4.5 mm
Short-circuit protection	✓
Power-up pulse protection	✓
Shock and vibration resistance	100 g / 5 ms / 1000 cycles; 150 g / 1 Mio cycles; 10 Hz … 55 Hz, 1 mm / 55 Hz … 500 Hz / 60 g
Ambient operating temperature	−25 °C … +75 °C
Housing material	Stainless steel V2A, DIN 1.4305 / AISI 303
Sensing face material	Stainless steel V2A, DIN 1.4305 / AISI 303
Housing length	59.5 mm
Thread length	55 mm
Tightening torque, max.	≤ 90 Nm
Protection class	III
UL File No.	E181493

[1] Of V_S.

[2] With I max.

[3] Of Sr.

Safety-related parameters

$MTTF_D$	1,892 years
DC_{avg}	0 %

Reduction factors

Note	The values are reference values which may vary
St37 steel (Fe)	Approx. 1
Stainless steel (V2A, 304)	Approx. 0.83
Aluminum (Al)	Approx. 0.52
Copper (Cu)	Approx. 0.32
Brass (Br)	Approx. 0.6

Installation note

Remark	Associated graphic see "Installation"
B	25 mm
C	18 mm
D	24 mm
F	50 mm

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
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
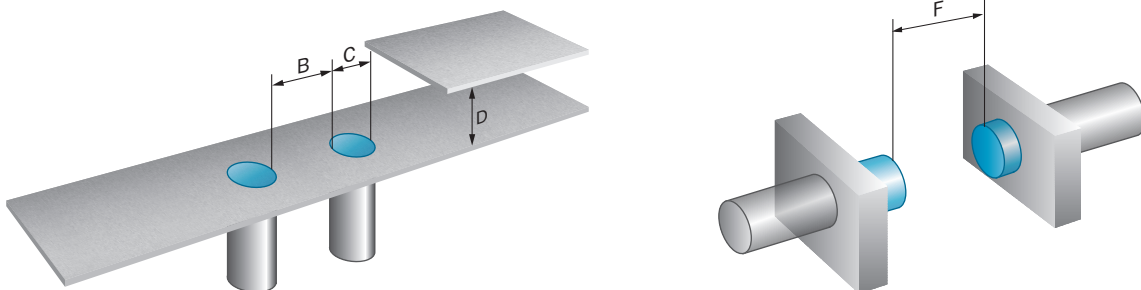
Connection diagram

Cd-001

Response diagram

Response diagram typical for IMI18-08B

Distance of target edge to center of active face in mm (inch)
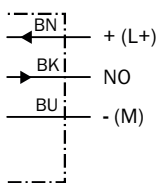
All dimensions in mm (inch)
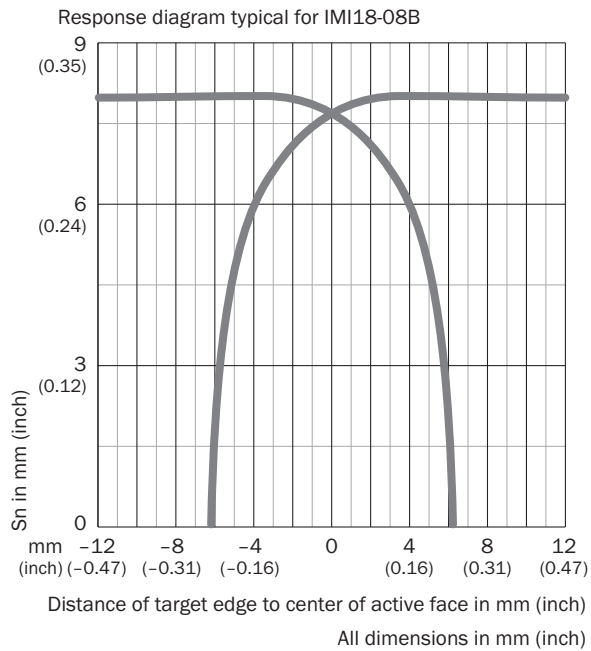
Dimensional drawing (Dimensions in mm (inch))

IM18 Inox, flush
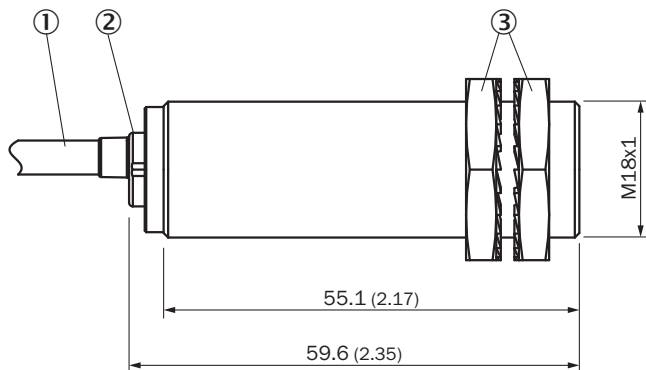
① Connection
② Display LED
③ Fastening nuts (2 x); width across 24, stainless steel V2A

Recommended accessories

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

	Brief description	Type	Part no.
Others			
	• **Connection type head A:** Male connector, M12, 4-pin, straight, A-coded • **Description:** Unshielded • **Connection systems:** Screw-type terminals • **Permitted cross-section:** ≤ 0.75 mm² • **Application:** Hygienic and washdown zones	STE-1204-GN	6028359
	• **Connection type head A:** Male connector, M12, 4-pin, straight, A-coded • **Description:** Unshielded • **Connection systems:** Screw-type terminals • **Permitted cross-section:** ≤ 0.75 mm² • **Note:** For 2 cable connections • **Application:** Hygienic and washdown zones	STE-1204-TN	6028360
	• **Connection type head A:** Female connector, M12, 4-pin, straight, A-coded • **Description:** Unshielded • **Connection systems:** Screw-type terminals • **Permitted cross-section:** ≤ 0.75 mm² • **Application:** Hygienic and washdown zones	DOS-1204-GN	6028357
	• **Connection type head A:** Female connector, M12, 4-pin, angled, A-coded • **Description:** Unshielded • **Connection systems:** Screw-type terminals • **Permitted cross-section:** ≤ 0.75 mm² • **Application:** Hygienic and washdown zones	DOS-1204-WN	6028358

Recommended services

Additional services ➜ www.sick.com/IMI

	Type	Part no.
Function Block Factory		
• **Description:** The Function Block Factory supports common programmable logic controllers (PLCs) from various manufacturers, such as Siemens, Beckhoff, Rockwell Automation and B&R. More information on the FBF can be found here. • **Note:** You can configure your function block at Function Block Factory. As a login please use your SICK ID.	Function Block Factory	On request

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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