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DATA SHEET

IMC18-07BPSZC0SS01

SAM
Inductive proximity sensors

SICK Sensor Intelligence



Illustration may differ

INDUCTIVE PROXIMITY SENSORS

IM-C18-07BPSZC0SS01

ORDERING INFORMATION

Type	part no.
IMC18-07BPSZC0SS01	1058622

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

DETAILED TECHNICAL DATA

FEATURES

Housing	Metric
Thread size	M18 x 1
Diameter	Ø 18 mm
Sensing range S_n	7 mm
Safe sensing range S_a	5.6 mm
Installation type	Flush
Connection type	Male connector M12, 4-pin
Switching output	PNP
Output Q_{Imp}	Pulse output (pulse train corresponds to the activation rate)
Output Q	Output type (dependant on the adjusted threshold)
Output function	NO
Electrical wiring	DC 4-wire
Speed range, adjustable via two thresholds	6 ... 1,200 pulses/min [1]
Acceleration range, adjustable	0.1 ... 2 pulses/s² [2]
Time delay, adjustable	Mode 0: No start-up delay, Mode 1: 0...254 s, configurable, Mode 2: When reaching the upper threshold
Enclosure rating	IP67 [3]
Special features	Speed monitor
Items supplied	Mounting nut, brass, nickel-plated (2x)

[1] Details see in the characteristic curves speed.

[2] Up to a max. pulse sequence of 1.200 pulses / min.

[3] According to EN 60529.

MECHANICS/ELECTRONICS

Supply voltage	10 V DC ... 30 V DC
Ripple	≤ 10 %
Voltage drop	≤ 2 V [1]
Hysteresis	5 % ... 15 % [2]
Reproducibility	≤ 2 % [3] [4]
Temperature drift (of S_r)	± 10 %
EMC	According to EN 60947-5-2
Continuous current I_a	≤ 100 mA
Short-circuit protection	✓
Reverse polarity protection	✓
Power-up pulse protection	✓
Shock and vibration resistance	30 g, 11 ms/10 Hz ... 55 Hz, 1 mm
Status indicator Q_{Imp}	LED, green
Status indicator Q	LED, yellow
Ambient operating temperature	–25 °C ... +75 °C
Housing material	Brass, nickel-plated
Sensing face material	Plastic, LCP
Housing length	69 mm
Thread length	52 mm
Tightening torque, max.	≤ 40 Nm

[1] At I_a max.

[2] Of S_n.

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

[4] Of Sr.

COMMUNICATION INTERFACE

Communication interface	IO-Link V1.0
Communication Interface detail	COM2 (38,4 kBaud)
Cycle time	2.3 ms
Process data length	16 Bit
Process data structure	14 bit measured value 1 bit pulse output 1 bit switching output

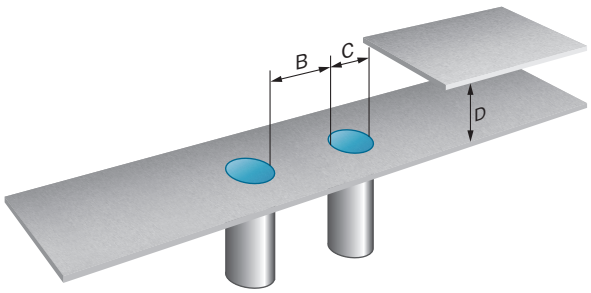
REDUCTION FACTORS

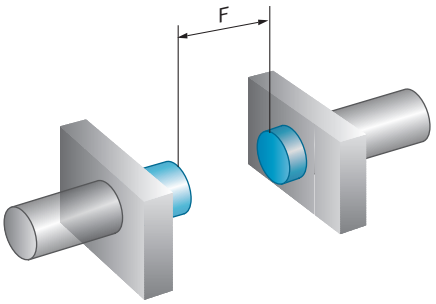
Note	The values are reference values which may vary
St37 steel (Fe)	1
Stainless steel (V2A, 304)	0.8
Aluminum (Al)	0.45
Copper (Cu)	0.4
Brass (Br)	0.4

INSTALLATION NOTE

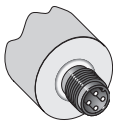
Remark	Associated graphic see "Installation"

INSTALLATION NOTE FLUSH INSTALLATION

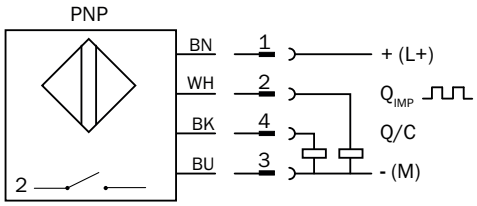




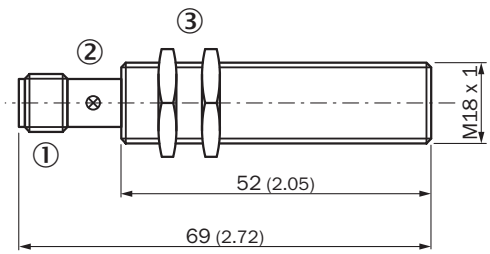
CONNECTION TYPE



CONNECTION DIAGRAM CD-226



DIMENSIONAL DRAWING IME18 STANDARD, CONNECTOR, FLUSH



Dimensions in mm (inch)
① Connection
② Display LED
③ Fastening nuts (2x); width across 24, metal

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/1058622

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SICK AT A GLANCE

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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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