# IME18-08BDSZQ9S

**INDUCTIVE PROXIMITY SENSORS** 



## IME18-08BDSZQ9S | IME

INDUCTIVE PROXIMITY SENSORS



## Ordering information

| Туре            | Part no. |
|-----------------|----------|
| IME18-08BDSZQ9S | 1068719  |

Included in delivery: BEF-MU-M18 (1)

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



#### Detailed technical data

#### Features

| Housing                           | Metric                                      |
|-----------------------------------|---|
| Housing                           | Standard design                             |
| Thread size                       | M18 x 1                                     |
| Diameter                          | Ø 18 mm                                     |
| Sensing range S <sub>n</sub>      | 8 mm  |
| Safe sensing range S <sub>a</sub> | 6.48 mm                                     |
| Installation type                 | Flush                                       |
| Switching frequency               | 1,000 Hz                                    |
| Connection type                   | Cable with M12 male connector, 4-pin, 0.3 m |
| Output function                   | NO  |
| Electrical wiring                 | DC 2-wire                                   |
| Enclosure rating                  | IP67 <sup>1)</sup>                          |
| Items supplied                    | Mounting nut, brass, nickel-plated (2x)     |

<sup>1)</sup> According to EN 60529.

Mechanics/electronics

| Supply voltage                 | 10 V DC 30 V DC                                  |
|--------------------------------|--|
| Ripple                         | ≤ 10 %   |
| Voltage drop                   | $\leq 4 \vee 1^{(1)}$<br>$\leq 4.5 \vee 2^{(2)}$ |
|                                | $\leq 4.5$ V <sup>2)</sup>                       |
| Time delay before availability | ≤ 100 ms   |

<sup>1)</sup> At I<sub>a</sub> = 30 mA.

<sup>2)</sup> At I<sub>a</sub> max.

 $^{\rm 3)}$  Supply voltage  $U_B$  and constant ambient temperature Ta.

<sup>4)</sup> Of Sr.

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| Hysteresis   | 5 % 15 %   |
|--|--|
| Reproducibility  | ≤ 2 % <sup>3) 4)</sup>   |
| Temperature drift (of S <sub>r</sub> )   | ± 10 %   |
| EMC  | According to EN 60947-5-2  |
| Continuous current l <sub>a</sub>  | ≤ 100 mA   |
| Off-state current  | ≤ 0.8 mA   |
| Minimum load current   | ≥ 3 mA   |
| Cable material   | PVC  |
| Cable diameter   | Ø 3.9 mm   |
| Short-circuit protection   | ✓  |
| Power-up pulse   | ≤ 5 ms   |
|  |  |
| Shock and vibration resistance   | 30 g, 11 ms/10 Hz 55 Hz, 1 mm                                    |
| Shock and vibration resistance<br>Ambient operating temperature                              | 30 g, 11 ms/10 Hz 55 Hz, 1 mm<br>-25 °C +75 °C                   |
|  |  |
| Ambient operating temperature  | -25 °C +75 °C  |
| Ambient operating temperature<br>Housing material  | -25 °C +75 °C<br>Brass, nickel-plated                            |
| Ambient operating temperature<br>Housing material<br>Sensing face material                   | -25 °C +75 °C<br>Brass, nickel-plated<br>Plastic, PA 66          |
| Ambient operating temperature<br>Housing material<br>Sensing face material<br>Housing length | -25 °C +75 °C<br>Brass, nickel-plated<br>Plastic, PA 66<br>67 mm |

<sup>1)</sup> At I<sub>a</sub> = 30 mA.

<sup>2)</sup> At I<sub>a</sub> max.

 $^{\rm 3)}$  Supply voltage  ${\rm U}_{\rm B}$  and constant ambient temperature Ta.

<sup>4)</sup> Of Sr.

## Safety-related parameters

| MTTFD                         | 1,103 years |
|-------------------------------|-------------|
| DC <sub>avg</sub>             | 0 %         |
| T <sub>M</sub> (mission time) | 20 years    |

## **Reduction factors**

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

## Installation note

| Remark | Associated graphic see "Installation" |
|--------|---------------------------------------|
| В      | 36 mm                                 |
| c      | 18 mm                                 |
| D      | 24 mm                                 |
| F      | 64 mm                                 |

## IME18-08BDSZQ9S | IME

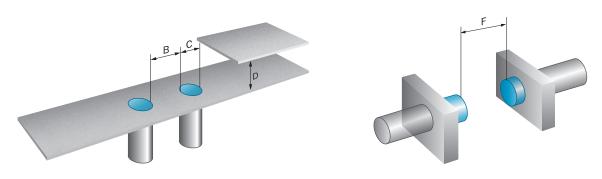
INDUCTIVE PROXIMITY SENSORS

#### 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 |

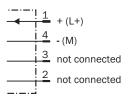
### Installation note

Flush installation



## Connection diagram

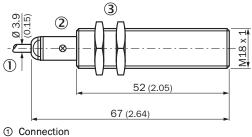
Cd-015



## INDUCTIVE PROXIMITY SENSORS

## Dimensional drawing (Dimensions in mm (inch))

IME18 standard, cable with male connector, flush



② Display LED

③ Fastening nuts (2x); width across 24, metal

## **Recommended accessories**

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

|                                 | Brief description   | Туре        | Part no. |
|---------------------------------|---|-------------|----------|
| Mounting brac                   | ckets and plates  |             |          |
|                                 | Mounting plate for M18 sensors, steel, zinc coated, without mounting hardware   | BEF-WG-M18  | 5321870  |
| 40                              | Mounting bracket for M18 sensors, steel, zinc coated, without mounting hardware   | BEF-WN-M18  | 5308446  |
| Terminal and alignment brackets |   |             |          |
| <b>S</b>                        | Clamping block for round sensors M18, without fixed stop, plastic (PA12), glass-fiber reinforced, mounting hardware included $% \left( \frac{1}{2}\right) =0$ | BEF-KH-M18  | 2051481  |
|                                 | Clamping block for round sensors M18, with fixed stop, plastic (PA12), glass-fiber rein-<br>forced, mounting hardware included                                | BEF-KHF-M18 | 2051482  |

# 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."

## WORLDWIDE PRESENCE:

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Online data sheet

