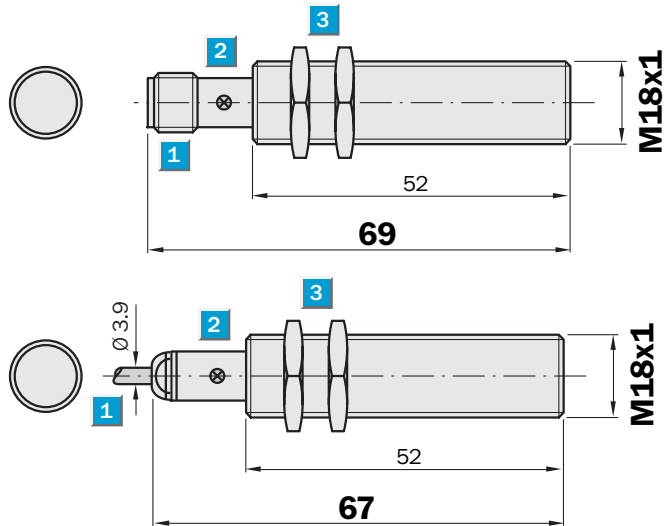


**Sensing range**  
8 mm

Inductive sensor

- Enhanced sensing range
- Short-circuit protection (pulsed)
- Robust brass housing, nickel-plated with fine thread M18 x 1 mm
- Enclosure rating IP 67
- Installation flush

Dimensional drawing

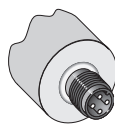


- 1 Connection
- 2 Display LED
- 3 Fastening nuts (2 x); width across 24, metal

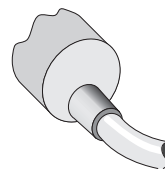
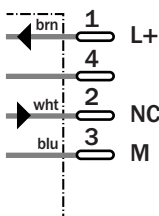


Connection type

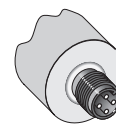
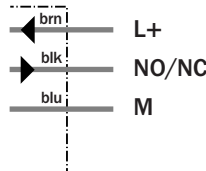
IME18-BNOZC0S	IME18-08BNOZW2S	IME18-08BNSZC0S
IME18-08BPOZC0S	IME18-08BNSZW2S	IME18-08BPSZC0S
	IME18-08BP0ZW2S	
	IME18-08BPSZW2S	



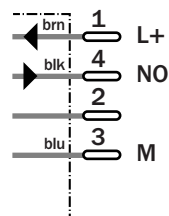
M12, 4-pin



3 x 0.25 mm<sup>2</sup>



M12, 4-pin



**Accessories**

Connector, M12, 4-pin

Mounting systems

Technical specifications		IME18-	08BNO ZC0S	08BNO ZW2S	08BNS ZC0S	08BNS ZW2S	08BPO ZC0S	08BPO ZW2S	08BPS ZC0S	08BPS ZW2S		
<b>Sensing range <math>S_n</math></b>	8 mm											
<b>Electrical configuration</b>	DC3-wire											
<b>Supply voltage <math>V_s</math></b>	DC 10 ... 30 V											
Nominal voltage $V_n$	DC											
Ripple $U_{pp}$	≤ 10 %											
Voltage drop $U_d$	≤ 2 V <sup>1)</sup>											
Power consumption	≤ 10 mA <sup>2)</sup>											
<b>Continuous current <math>I_a</math></b>	≤ 200 mA											
Time delay before availability $t_v$	≤ 100 ms											
Hysteresis H, of $s_r$	5 ... 15 %											
Repeatability R	≤ 2 % ( $U_b$ and $T_a$ constant) <sup>3)</sup>											
Temperature drift, of $s_r$	± 10 %											
EMC	According to EN 60947-5-2											
<b>Switching output</b>	NPN											
	PNP											
<b>Output function</b>	Normally closed											
	Normally open											
<b>Installation</b>	Flush											
<b>Connection type</b>	Connector, M12, 4-pin											
	Cable, PVC, 2 m											
<b>Enclosure rating</b>	IP 67 <sup>4)</sup>											
Max. switching frequency	1000 Hz											
Dimensions	M18 x 1 <sup>5)</sup>											
<b>Short-circuit protection</b>	✓ <sup>6)</sup>											
<b>Reverse polarity protection</b>	✓											
<b>Power-up pulse suppression</b>	✓											
Shock/vibration stress	30 g, 11 ms/10 ... 55 Hz, 1 mm											
Ambient temperature $T_a$	-25 °C ... +75 °C											
<b>Housing material</b>	Brass nickel-plated, plastic (PA6)											
Tightening torque	40 Nm											
<b>Approvals</b>												
Protection class	<input type="checkbox"/>											
UL approval	cULus Listed											

<sup>1)</sup> At  $I_a$  max  
<sup>2)</sup> Without load

<sup>3)</sup> Of  $s_r$   
<sup>4)</sup> According to EN 60529

<sup>5)</sup> Thread diameter x pitch (mm)  
<sup>6)</sup> (Pulsed)

**Reduction factor  $R_M$**

The following are reference values, which may vary from type to type:

St37 (Fe)	1
Stainless steel (V2A)	Approx. 0.8
Aluminum (solid)	Approx. 0.45
Copper (Cu)	Approx. 0.4

**Ordering information**

Type	Part Number
IME18-08BNOZC0S	1040978
IME18-08BNOZW2S	1040980
IME18-08BNSZC0S	1040974
IME18-08BNSZW2S	1040976
IME18-08BPOZC0S	1040970
IME18-08BPOZW2S	1040972
IME18-08BPSZC0S	1040966
IME18-08BPSZW2S	1040968

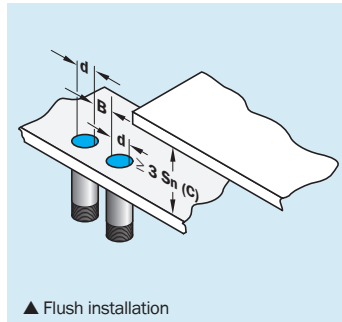
## Installation notes

### Flush installation in metal

The sensor can be embedded in the metal up to the sensing face.

Proximity sensors for flush installation have a smaller sensing range compared to proximity sensors for non-flush installation with the same shape and design.

General installation notes for cylindrical design for flush installation in metal:



Standard series	
Type	Metal-free zone [mm]
IME08-1B5...	B = 8, C = 4,5
IME12-02B...	B = 12, C = 6
IME18-05B...	B = 18, C = 15
IME30-10B...	B = 30, C = 30

Advanced-Reihe	
Type	Metal-free zone [mm]
IME08-02B...	B = 16, C = 6
IME12-04B...	B = 24, C = 12
IME18-08B...	B = 36, C = 24
IME30-15B...	B = 60, C = 45

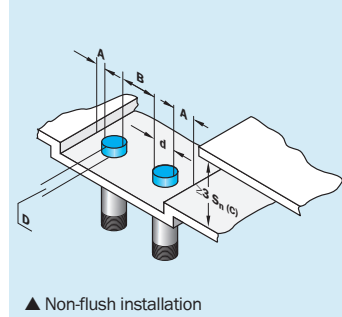
d = Outer diameter of the sensor

# Installation notes

## Non-flush installation in metal

With proximity sensors for non-flush installation, a metal-free zone must be maintained owing to the scattered field distribution.

General installation notes for cylindrical design for non-flush installation in metal:



d = Outer diameter of the sensor

Standard series	
Type	Metal-free zone [mm]
IME08-2N5...	A = 8, B = 16, C = 7,5, D = 6
IME12-04N...	A = 12, B = 24, C = 12, D = 8
IME18-08N...	A = 18, B = 36, C = 24, D = 16
IME30-15N...	A = 30, B = 60, C = 45, D = 30

Advanced series	
Type	Metal-free zone [mm]
IME08-04N...	A = 8, B = 18, C = 12, D = 8
IME12-08N...	A = 12, B = 24, C = 24, D = 16
IME18-12N...	A = 18, B = 36, C = 36, D = 24
IME30-20N...	A = 30, B = 60, C = 60, D = 40

## Opposite installation in metal

