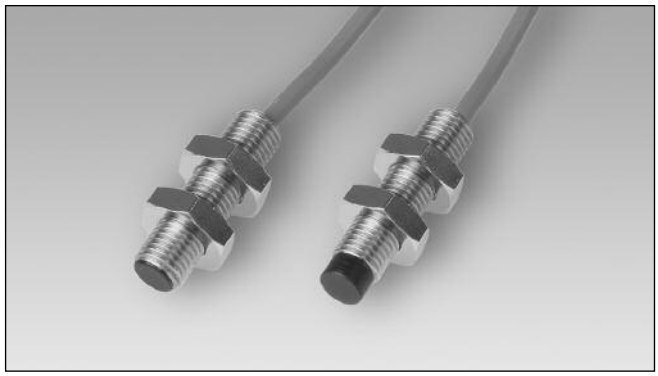
Proximity Sensors Inductive
Extended Range, Stainless Steel Housing
Types IA, DC, M8, 2-wire



- **Sensing distance: 2 to 4 mm**
- **Flush and non-flush types**
- **Power supply: 10 to 30 VDC**
- **Output: Transistor**
- **Normally open or normally closed**
- **Protection: Reverse polarity, short-circuit and transients**
- **2 m cable**
- **Diameter: M8**

Product Description

M8 proximity switch with extended sensing range in stainless steel housing. Made in accordance with Euronorm EN 60 947-5-2.

Ordering Key

IA 08 BSF 02 DO

- **Ind. proximity switch**
- **Housing style**
- **Housing size**
- **Housing material**
- **Housing length**
- **Detection principle**
- **Sensing distance**
- **Output type**
- **Output configuration**

Type Selection

Housing diameter	Body style	Connection	Rated operating dist. (S_n)	Ordering no. 2 wire DC Normally open	Ordering no. 2 wire DC Normally closed
M8	Short	Cable	2 mm [1]	**IA 08 BSF 02 DO**	**IA 08 BSF 02 DC**
M8	Short	Cable	4 mm [2]	**IA 08 BSN 04 DO**	**IA 08 BSN 04 DC**

[1] For flush mounting in metal

[2] For non-flush mounting in metal

Specifications

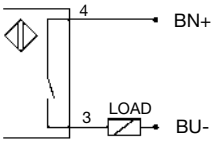
Rated operational volt. (U_B)	10 to 30 VDC (ripple included)
Ripple	≤ 10%
Rated operational current (I_e) Continuous	≤ 3-100 mA
No-load supply current (I)	≤ 1.2 mA
Voltage drop (U_d)	≤ 8 VDC at max. load
Protection	Reverse polarity, short-circuit, transients
Transient voltage	≤ 2 kV/0.5 J
Power ON delay	< 50 ms
Frequency of operating cycles (f)	2 kHz
Indication	LED, yellow
Repeat accuracy (R)	≤ 2 %
Hysteresis (H) (Differential travel)	1 to 20% of sensing distance
Assured operating dist. (S_a)	$0 \le S_a \le 0.77\ S_n$
Effective operating dist. (S_r)	$0.9 \times S_n \le S_r \le 1.1 \times S_n$
Usable operating dist. (S)	$0.85 \times S_r \le S_u \le 1.15 \times S_r$

Ambient temperature	
Operating	-25° to +70°C (-13° to +158°F)
Storage	-30° to +80°C (-22° to +176°F)
Degree of protection	IP 67 (Nema 1, 3, 4, 6, 13)
Housing material	
Body	Stainless steel
Front	Black thermoplastic polyester
Connection	Cable, 2 m, 2 x 0.5 mm², grey PVC, oil proof
Approvals	CSA
CE-marking	Yes

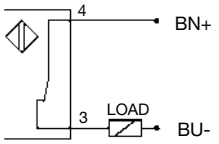
Wiring Diagrams

"PNP"

DC 2-wire
normally open (NO)

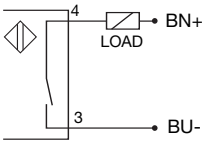


DC 2-wire
normally closed (NC)

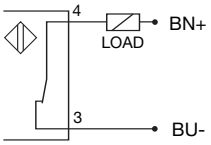


"NPN"

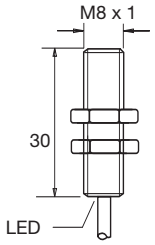
DC 2-wire
normally open (NO)



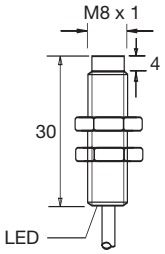
DC 2-wire
normally closed (NC)



Dimensions



IA 08 BSF 02 D.



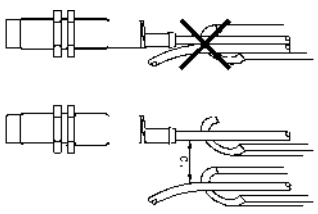
IA 08 BSN 04 D.

Power Supplies

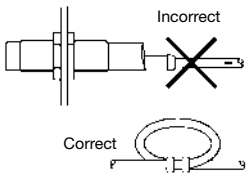
Power supplies VDC: > SS 130/140.

Installation Hints

To avoid interference from inductive voltage/ current peaks, separate the prox. switch power cables from any other power cables, e.g. motor, contactor or solenoid cables

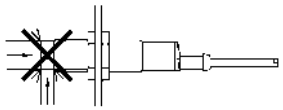


Relief of cable strain



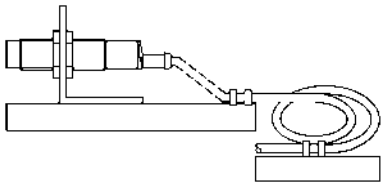
The cable should not be pulled

Protection of the sensing face



A proximity switch should not serve as mechanical stop

Switch mounted on mobile carrier



Any repetitive flexing of the cable should be avoided