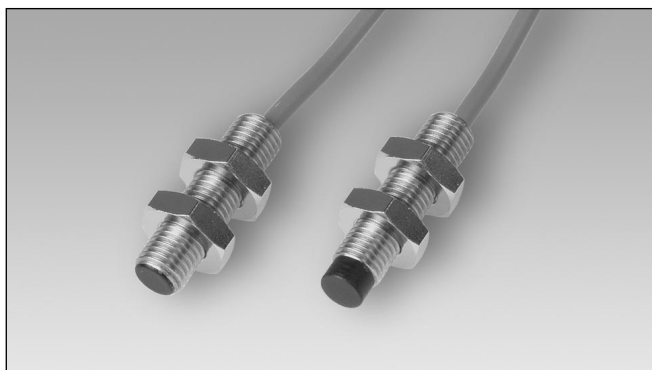


# Proximity Sensors Inductive Extended Range, Stainless Steel Housing Types IA, DC, M8, 2-wire

CARLO GAVAZZI



- Sensing distance: 2 to 4 mm
- Flush and non-flush types
- Power supply: 10 to 30 VDC
- Output: Transistor
- Make or break switching
- 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	IA
Housing style	08
Housing size	BSF
Housing material	02
Housing length	DO
Detection principle	
Sensing distance	
Output type	
Output configuration	

## Type Selection

Housing diameter	Body style	Connec- tion	Rated operating dist. (S <sub>n</sub> )	Ordering no. 2 wire DC Normally open	Ordering no. 2 wire DC Normally closed
M8	Short	Cable	2 mm <sup>1)</sup>	IA 08 BSF 02 DO	IA 08 BSF 02 DC
M8	Short	Cable	4 mm <sup>2)</sup>	IA 08 BSN 04 DO	IA 08 BSN 04 DC

<sup>1)</sup> For flush mounting in metal

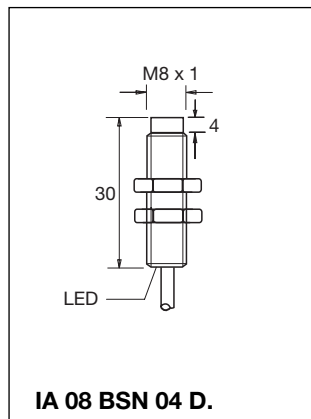
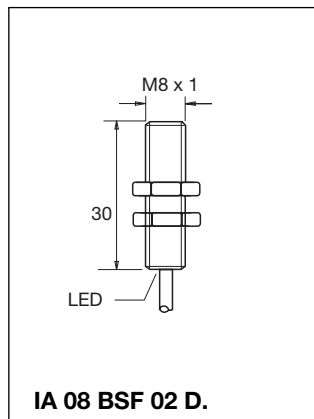
<sup>2)</sup> For non-flush mounting in metal

## Specifications

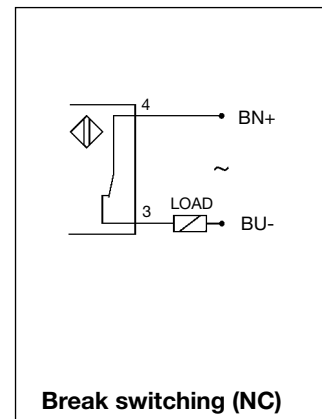
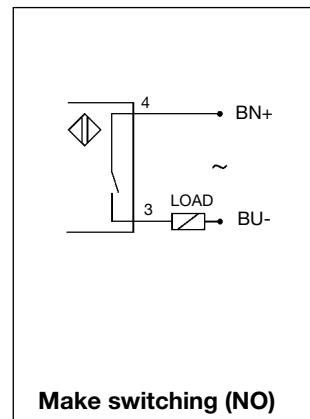
<b>Rated operational volt. (U<sub>B</sub>)</b>	10 to 30 VDC (ripple included)	<b>Ambient temperature</b>	
<b>Ripple</b>	≤ 10%	Operating	-25° to +70°C (-13° to +158°F)
<b>Rated operational current (I<sub>e</sub>)</b>		Storage	-30° to +80°C (-22° to +176°F)
Continuous	≤ 3-100 mA	<b>Degree of protection</b>	IP 67 (Nema 1, 3, 4, 6, 13)
<b>No-load supply current (I)</b>	≤ 1.2 mA	<b>Housing material</b>	
<b>Voltage drop (U<sub>d</sub>)</b>	≤ 8 VDC at max. load	Body	Stainless steel
<b>Protection</b>	Reverse polarity, short-circuit, transients	Front	Black thermoplastic polyester
<b>Transient voltage</b>	≤ 2 kV/0.5 J	<b>Connection</b>	Cable, 2 m, 2 x 0.5 mm <sup>2</sup> , grey PVC, oil proof
<b>Power ON delay</b>	< 50 ms	<b>CE-marking</b>	Yes
<b>Frequency of operating cycles (f)</b>	2 kHz		
<b>Indication</b>	LED, yellow		
<b>Repeat accuracy (R)</b>	≤ 2 %		
<b>Hysteresis (H) (Differential travel)</b>	1 to 20% of sensing distance		
<b>Assured operating dist. (S<sub>a</sub>)</b>	0 ≤ S <sub>a</sub> ≤ 0.77 S <sub>n</sub>		
<b>Effective operating dist. (S<sub>r</sub>)</b>	0.9 x S <sub>n</sub> ≤ S <sub>r</sub> ≤ 1.1 x S <sub>n</sub>		
<b>Usable operating dist. (S)</b>	0.85 x S <sub>r</sub> ≤ S <sub>u</sub> ≤ 1.15 x S <sub>r</sub>		



## Dimensions

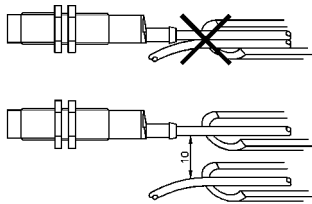


## Wiring Diagrams

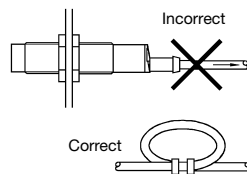


## Installation Hints

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

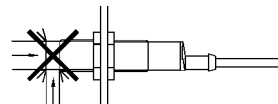


Relief of cable strain



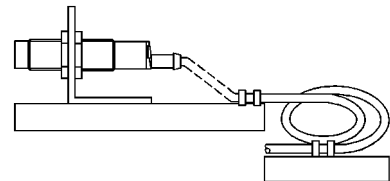
The cable should not be pulled

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

## Power Supplies

Power supplies VDC: > SS 130/140.