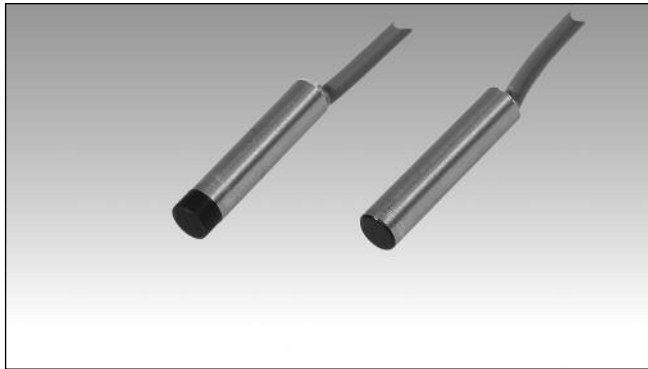# Proximity Sensors Inductive Stainless Steel Housing Types IA, Ø6.5

CARLO GAVAZZI

- Miniature Ø6.5 stainless steel housing
- Short housing
- Sensing distance: 1.0 and 2.0 mm
- Power supply: 10 to 30 VDC
- Output: Transistor NPN/PNP, normally open or normally closed
- Protection: Short-circuit and reverse polarity
- LED-indication for output ON
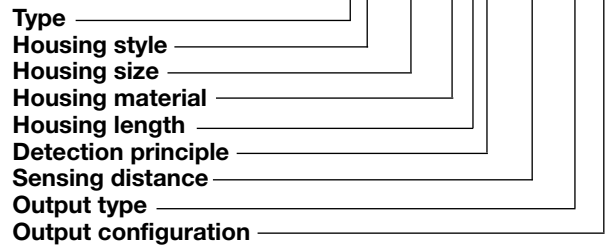- For flush mounting/non flush mounting
- 2 m PVC cable

Product Description

Inductive proximity sensor in Ø6.5 stainless steel housing for flush or non-flush mounting in metal.

Output configuration for NPN/PNP with both NO and NC types as standard. Connection with 2 m PVC cable.

Ordering Key

IA 06 BSF 10 NO

Type
Housing style
Housing size
Housing material
Housing length
Detection principle
Sensing distance
Output type
Output configuration

Type Selection

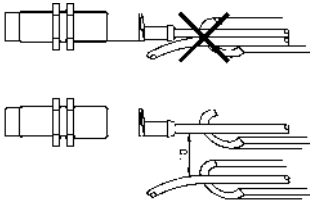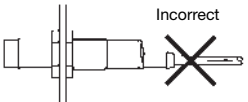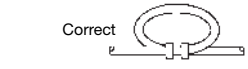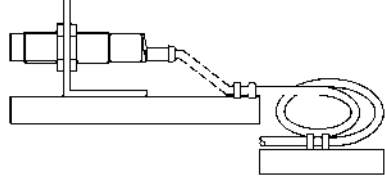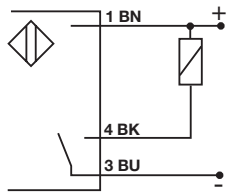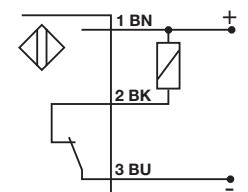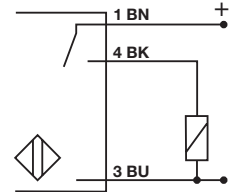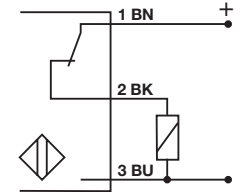| Rated operating dist. (S_n)	Conn. type	Ordering no. Transistor NPN Normally open	Ordering no. Transistor NPN Normally closed	Ordering no. Transistor PNP Normally open	Ordering no. Transistor PNP Normally closed
1.0 mm [1]	Cable	IA06BSF10NO	IA06BSF10NC	IA06BSF10PO	IA06BSF10PC
2.0 mm [2]	Cable	IA06BSN20NO	IA06BSN20NC	IA06BSN20PO	IA06BSN20PC

[1] For flush mounting
[2] For non flush mounting

Specifications

Rated operational volt. (U_B)	10 to 30 VDC (ripple included)
Ripple	≤ 10%
Rated operational current (I_e) Continuous	≤ 200 mA
No-load supply current (I_o)	≤ 10 mA (ON)
Voltage drop (U_d)	< 1.0 V (@ I_{max})
Protection	Short-circuit, reverse polarity
Frequency of operating cycles (f)	2 kHz
Indication for output ON	LED, red

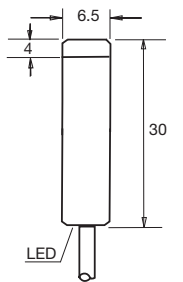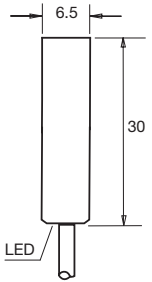|	
Effective operating dist. (S_r)	$0.9 \times S_n \leq S_r \leq 1.1 \times S_n$
Usable operating dist. (S_u)	$0.85 \times S_r \leq S_u \leq 1.15 \times S_r$
Ambient temperature Operating Storage	-25° to +70°C (-13° to +158°F) -30° to +75°C (-22° to +167°F)
Degree of protection	IP 67 (Nema 1, 3, 4, 6, 13)
Housing material	Stainless steel
CE-marking	Yes
Connection	2 m, PVC, oil proof

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	Protection of the sensing face	Switch mounted on mobile carrier
	Incorrect Correct The cable should not be pulled	A proximity switch should not serve as mechanical stop	Any repetitive flexing of the cable should be avoided

Wiring Diagrams

NPN - Normally open	NPN - Normally closed	PNP - Normally open	PNP - Normally closed
1 BN + 4 BK 3 BU −	1 BN + 2 BK 3 BU −	1 BN + 4 BK 3 BU −	1 BN + 2 BK 3 BU −

Dimensions

6.5
4
30
LED
IA 06 BSN 20 ..

6.5
30
LED
IA 06 BSF 10 ..

Specifications are subject to change without notice (20.10.11)