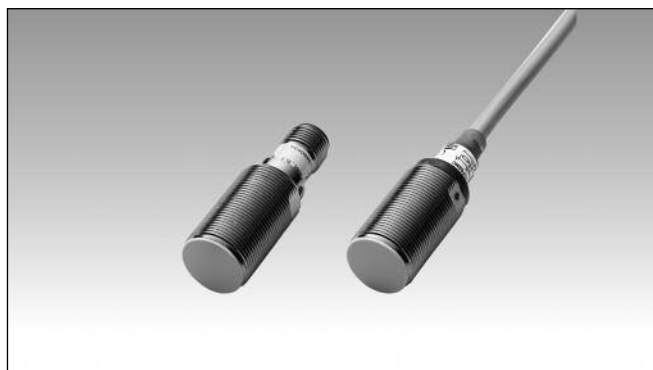


Proximity Inductive Sensors Extended Range, Nickel-Plated Brass Housing Types ICB, M18

CARLO GAVAZZI



- Sensing distance: 8 mm
- Flush types
- Short and long body versions
- Rated operational voltage (U_b): 10 - 36 VDC
- Output: DC 200 mA, NPN or PNP
- Normally open, Normally closed
- LED indication for output ON
- Protection: reverse polarity, short circuit, transients
- Cable and M12 plug versions
- According to IEC 60947-5-2
- CSA certified for Hazardous Locations

Product Description

A family of inductive proximity switches in industrial standard nickel-plated brass housings. They are able to handle applications where high sensing range is requested. Output is open collector NPN or PNP transistors.

Ordering Key

ICB18SF08NOM1

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

Type Selection

Conne- ction	Body style	Rated operating distance S_n	Ordering no. NPN Normally open	Ordering no. PNP Normally open	Ordering no. NPN Normally closed	Ordering no. PNP Normally closed
Cable	Short	8 mm	ICB 18 SF 08 NO	ICB 18 SF 08 PO	ICB 18 SF 08 NC	ICB 18 SF 08 PC
Plug	Short	8 mm	ICB 18 SF 08 NOM1	ICB 18 SF 08 POM1	ICB 18 SF 08 NCM1	ICB 18 SF 08 PCM1
Cable	Long	8 mm	ICB 18 LF 08 NO	ICB 18 LF 08 PO	ICB 18 LF 08 NC	ICB 18 LF 08 PC
Plug	Long	8 mm	ICB 18 LF 08 NOM1	ICB 18 LF 08 POM1	ICB 18 LF 08 NCM1	ICB 18 LF 08 PCM1

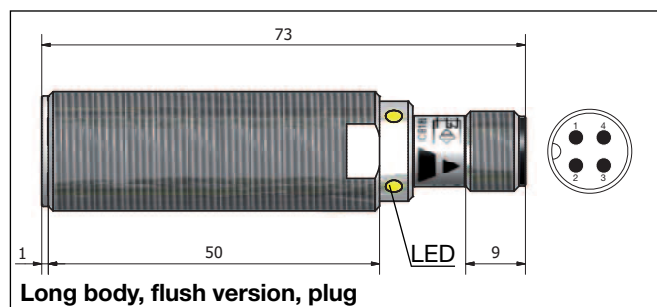
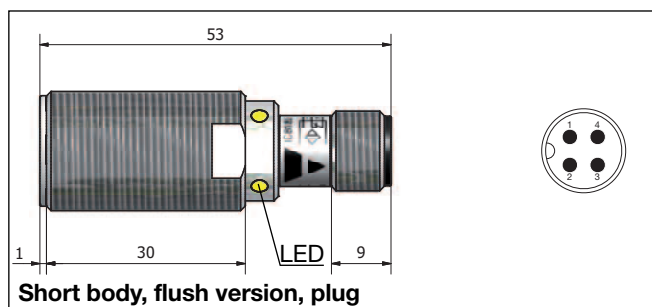
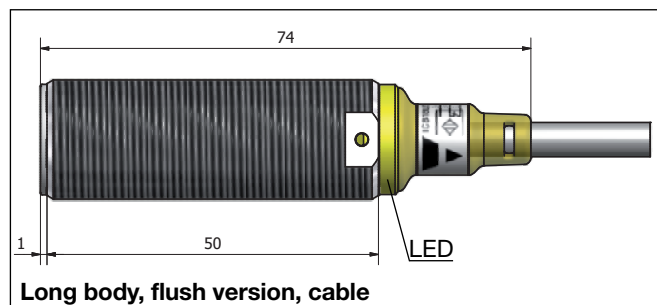
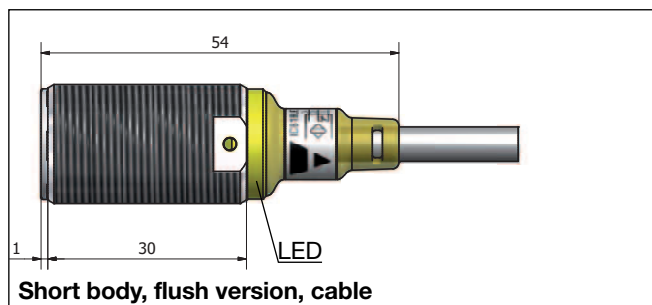
Specifications

Rated operational voltage (U_b)	10 to 36 VDC (ripple incl.)	Indication for short circuit/ overload	LED blinking
Ripple	$\leq 10\%$	Assured operating sensing distance (S_a)	$0 \leq S_a \leq 0.81 \times S_n$
Output current (I_a)	≤ 200 mA @ 50°C (≤ 150 mA @ 50-70°C)	Effective operating distance (S_r)	$0.9 \times S_n \leq S_r \leq 1.1 \times S_n$
OFF-state current (I_r)	≤ 50 μ A	Usable operating distance (S_u)	$0.9 \times S_r \leq S_u \leq 1.1 \times S_r$
No load supply current (I_o)	≤ 15 mA	Repeat accuracy (R)	$\leq 10\%$
Voltage drop (U_d)	Max. 2.5 VDC @ 200 mA	Differential travel (H) (Hysteresis)	1 to 20% of sensing dist.
Protection	Reverse polarity, short-circuit, transients	Shock and vibration	IEC 60947-5-2/7.4
Dielectric impulse voltage withstand	1 kV/0.5 J	Ambient temperature	Operating Storage
Power ON delay (t_r)	300 ms		-25° to +70°C (-13° to +158°F) -30° to +80°C (-22° to +176°F)
Operating frequency (f)	≤ 1500 Hz	Housing material	Body Front
Indication for output ON	Activated LED, yellow		Nickel-plated brass Grey thermoplastic polyester
NO version	Target present		
NC version	Target not present		

Specifications (cont.)

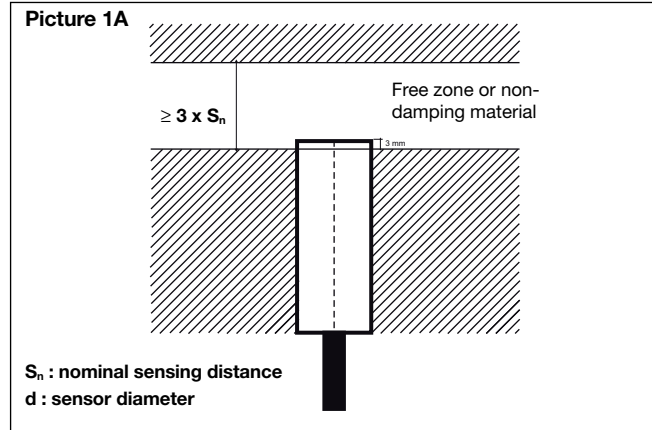
Connection		Approvals (cont.)	
Cable	2 m, 3 x 0.25 mm ² , grey PVC, oil proof M12 x 1	cCSAus	As Process Control Equipment for Hazardous Locations. - Class I, Division 2, Groups A, B, C and D. - T5 up to 150 mA, T4A for a load current > 150 mA and up to 200 mA, Enclosure Type 4. Ambient temperature Ta: -25° to +60°C. CCC is not required for products with a maximum operating voltage of ≤ 36 V
Plug		Note:	The terminal connector (version ...M1) was not evaluated. The suitability of the terminal connector should be determined in the end-use application.
Degree of protection	IP 67	CE-marking	Yes
Weight (cable/nuts included)		EMC protection	According to IEC 60947-5-2 8 kV air discharge, 4 kV contact discharge 3 V/m 2 kV 3 V 30 A/m
Cable	Max. 150 g	IEC 61000-4-3	
Plug	Max. 70 g	IEC 61000-4-4	
Dimensions	See diagrams below	IEC 61000-4-6	
Tightening torque		IEC 61000-4-8	
Non-flush version	25 Nm		
Flush version			
From 1 to 3 mm	15 Nm		
> 3 mm	25 Nm		
Approvals	UL (cULus), CSA		
	As Industrial Control Equipment - Proximity Switches. Types 1, 4, 4X or 12. Max ambient temperature 40°C.		

Dimensions

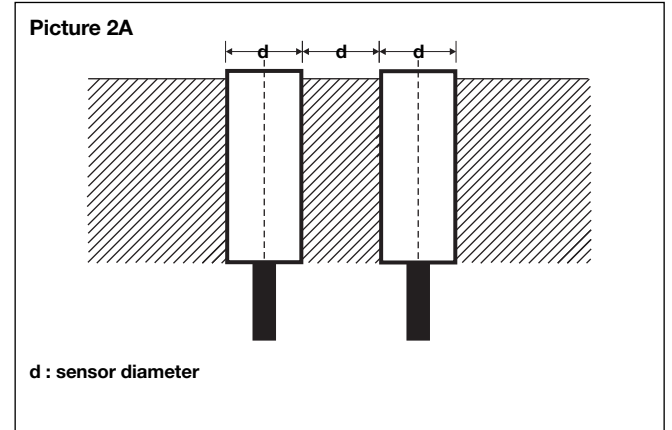


Installation

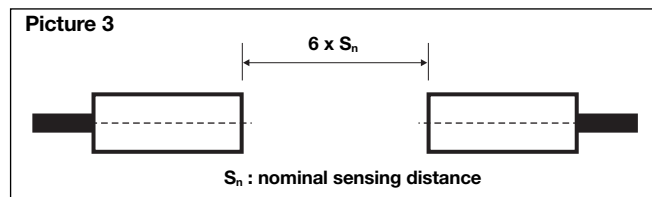
Flush sensor, when installed in damping material, must be according to Picture 1A.



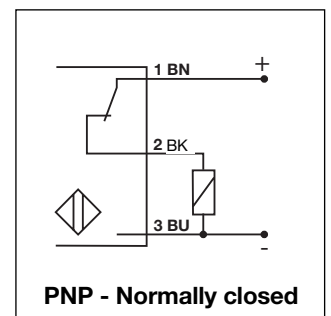
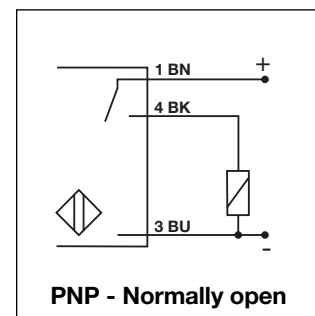
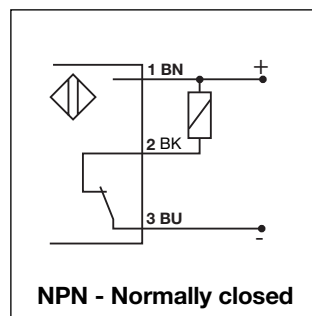
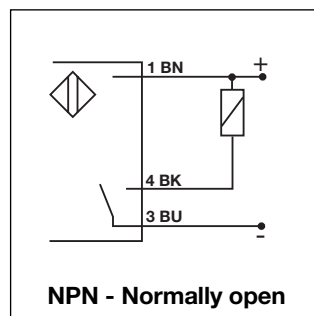
Flush sensors, when installed together in damping material, must be according to Picture 2A.



For sensors installed opposite each other, a minimum space of $6 \times S_n$ (the nominal sensing distance) must be observed (See Picture 3).



Wiring Diagrams

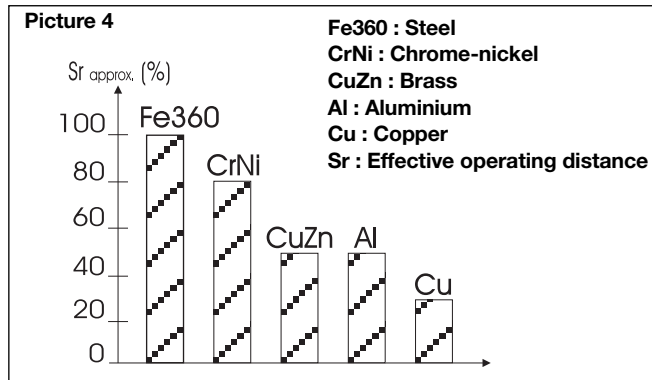




Reduction factors

The rated operating distance is reduced by the use of metals and alloys other than Fe360.

The most important reduction factors for inductive proximity sensors are shown in Picture 4.



Delivery Contents

- Inductive proximity switch ICB.
- 2 nuts NPB
- Packaging: plastic bag

Accessories for Plug Versions

	PVC	PUR
3-wire angled connector, 2 m cable	CONB13NF-A2	CONB13NF-A2P
3-wire angled connector, 5 m cable	CONB13NF-A5	CONB13NF-A5P
3-wire angled connector, 10 m cable	CONB13NF-A10	CONB13NF-A10P
3-wire angled connector, 15 m cable	CONB13NF-A15	CONB13NF-A15P
3-wire straight connector, 2m cable	CONB13NF-S2	CONB13NF-S2P
3-wire straight connector, 5m cable	CONB13NF-S5	CONB13NF-S5P
3-wire straight connector, 10m cable	CONB13NF-S10	CONB13NF-S10P
3-wire straight connector, 15m cable	CONB13NF-S15	CONB13NF-S15P

For any additional information or different options, please refer to the "General Accessories - Connector Cables -Type CONB1..." datasheets.