Proximity Sensors Inductive
Short body, Stainless Steel Housing
Types IA, M5 w/short-circuit protection

CARLO GAVAZZI

- Miniature stainless steel housing M5
- Short body
- Sensing distance: 1.0 mm (0.8 mm for IA05BSF10NCP only)
- Power supply: 10 to 30 VDC
- Output: Transistor NPN/PNP, normally open or normally closed
- Protection: Reverse polarity and short-circuit protection
- LED-indication for output ON
- 2 m PVC cable or M8 plug

Product Description

Miniature inductive proximity sensor with reduced body length. Output configuration for NPN/PNP with both NO and NC types as standard. M5 stainless steel housing. Connection with 2 m PVC cable or M8 plug.

Ordering Key

IA 05 BSF 10 NO M5 P

Ind. prox. switch
Housing style
Housing size
Housing material
Housing length
Detection principle
Sensing distance
Output type
Output configuration
Connection
Protected

Type Selection

Rated operating dist. (S_n) [1]	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
0.8 mm [1]	Cable		IA 05 BSF 10 NC P		
1.0 mm [1]	Cable	IA 05 BSF 10 NO P		IA 05 BSF 10 PO P	IA 05 BSF 10 PC P
1.0 mm [1]	Plug	IA 05 BSF 10 NO M5 P	IA 05 BSF 10 NC M5 P	IA 05 BSF 10 PO M5 P	IA 05 BSF 10 PC M5 P

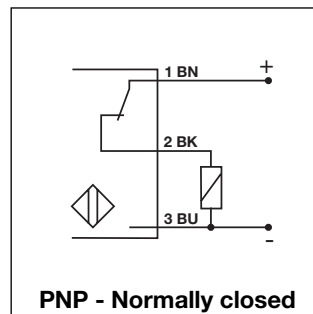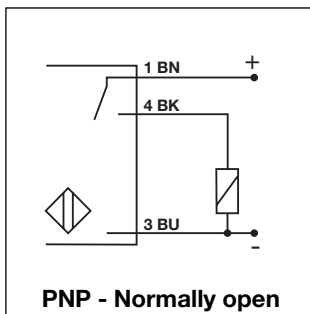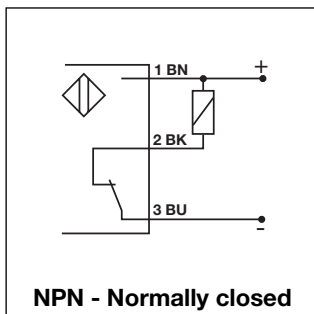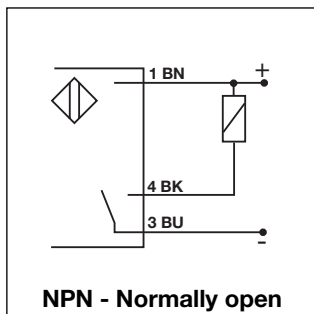[1] For flush mounting in metal

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	Reverse polarity and short-circuit protection
Frequency of operating cycles (f)	2000 Hz
Indication for output ON	LED, yellow
Effective operating dist. (S_r)	0.9 x S_n ≤ S_r ≤ 1.1 x S_n
Usable operating dist. (S_u)	0.85 x S_r ≤ S_u ≤ 1.15 x S_r

Ambient temperature Operating	-25° to +70°C (-13° to +158°F)
Storage	-30° to +75°C (-22° to +167°F)
Degree of protection	IP 67 (Nema 1, 3, 4, 6, 13)
Housing material	Stainless steel, AISI 303
CE-marking	Yes
Connection Cable	2 m, PVC, oil proof AWG 26/ 3 x 0.15 mm²
Plug	M8, CONH5A-xxx Serie

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Wiring Diagrams

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

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
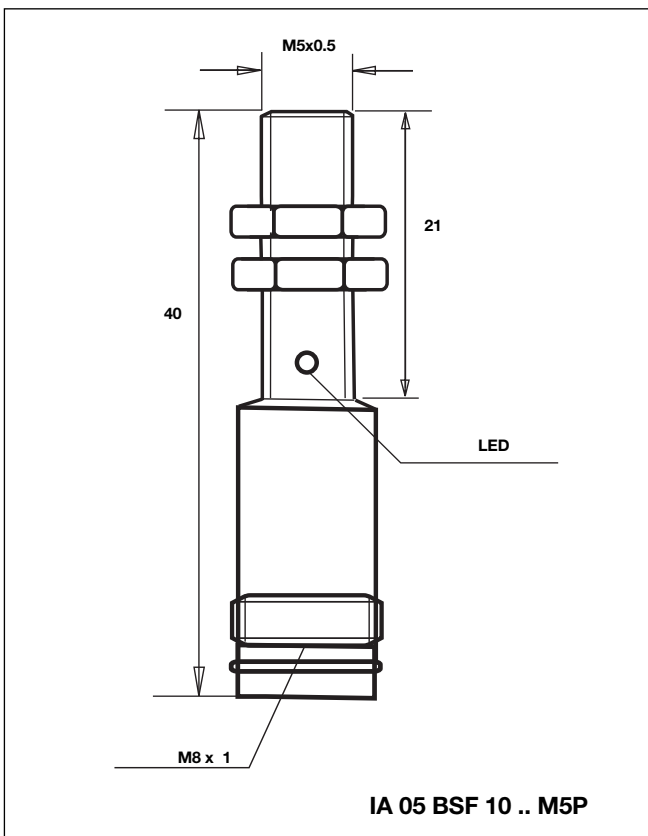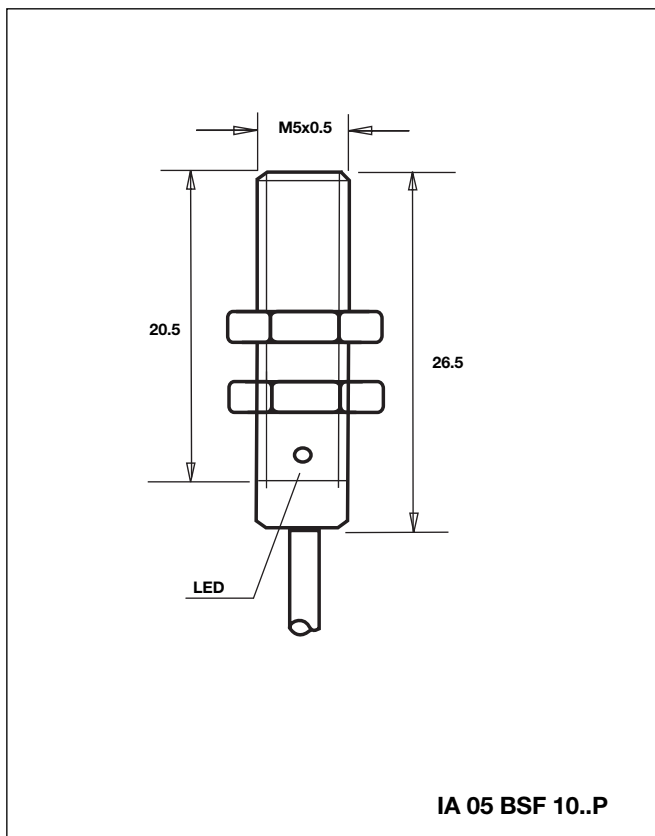
Incorrect

Correct

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

Dimensions

M5x0.5

20.5

26.5

LED

IA 05 BSF 10..P

M5x0.5

40

21

LED

M8 x 1

IA 05 BSF 10 .. M5P

Specifications are subject to change without notice (06.06.13)

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