

Proximity Sensors Inductive

Short body, Stainless Steel Housing

Types IA, M5 w/short-circuit protection

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- 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	IA
Housing style	05
Housing size	BSF
Housing material	10
Housing length	NO
Detection principle	M5
Sensing distance	P
Output type	
Output configuration	
Connection	
Protected	

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
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

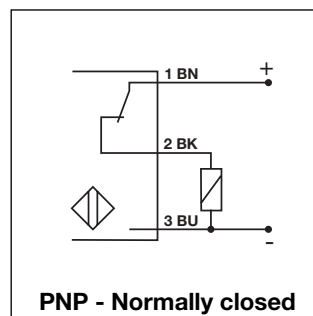
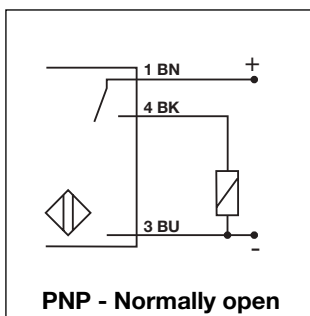
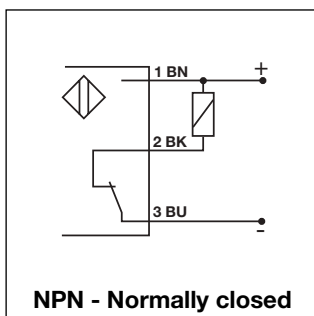
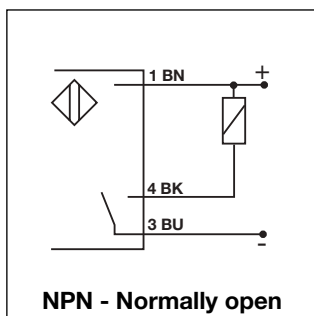
¹⁾ For flush mounting in metal

Specifications

Rated operational volt. (U_B)	10 to 30 VDC (ripple included)	Ambient temperature	
Ripple	≤ 10%	Operating	-25° to +70°C (-13° to +158°F)
Rated operational current (I_a) Continuous	≤ 200 mA	Storage	-30° to +75°C (-22° to +167°F)
No-load supply current (I_o)	≤ 10 mA (ON)	Degree of protection	IP 67 (Nema 1, 3, 4, 6, 13)
Voltage drop (U_d)	< 1.0 V (@ I _{max})	Housing material	Stainless steel, AISI 303
Protection	Reverse polarity and short-circuit protection	CE-marking	Yes
Frequency of operating cycles (f)	2000 Hz	Connection	
Indication for output ON	LED, yellow	Cable	2 m, PVC, oil proof AWG 26/ 3 x 0.15 mm ²
Effective operating dist. (S_r)	0.9 x S _n ≤ S _r ≤ 1.1 x S _n	Plug	M8, CONH5A-xxx Serie
Usable operating dist. (S_u)	0.85 x S _r ≤ S _u ≤ 1.15 x S _r		



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

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

