Proximity Sensors Inductive
High Temperature, Nickel-plated Brass Housing
Types IA, M12

- Nickel-plated brass housing
- Sensing distance:
  Flush mounting: 2 mm or
  Non-flush mounting: 4 mm
- Power supply: 10 to 30 VDC
- Output: Transistor PNP, make switching
- High temperature range: -40° to +100°C
- Protection: Short-circuit
- LED-indication for output ON
- 2 m PUR cable or M12 plug

Product Description

Inductive proximity sensor in M12 nickel-plated brass housing for high temperature applications.

Output configuration PNP, NO (make switching). Connection with 2 m PUR cable or M12 plug.

Ordering Key   IA 12 ASF 02 PO M1 HT-K

Type
Housing style
Housing size
Housing material
Housing length
Detection principle
Sensing distance
Output type
Output configuration
Connection
High temperature range

Type Selection

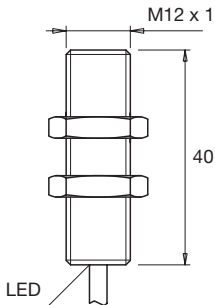| Rated operating distance (S_n)	Connection type	Ordering no. Transistor PNP, Make switching
2.0 mm [1]	Cable	**IA 12 ASF 02 PO HT-K**
2.0 mm [1]	Plug M12	**IA 12 ASF 02 PO M1 HT-K**
4.0 mm	Cable	**IA 12 ASN 04 PO HT-K**
4.0 mm	Plug M12	**IA 12 ASN 04 PO M1 HT-K**

[1] For flush mounting in metal
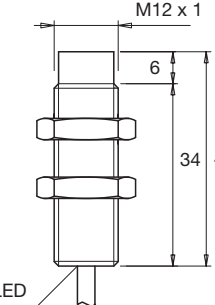
Specifications

Rated operational volt. (U_B)	10 to 30 VDC (ripple included)	**Effective operating dist.** (S_r)	$0.9 \times S_n \leq S_r \leq 1.1 \times S_n$
Ripple	$\leq 10\%$	**Usable operating dist.** (S_u)	$0.85 \times S_r \leq S_u \leq 1.15 \times S_r$
Rated operational current (I_e) Continuous	≤ 200 mA @ + 25°C (+75°F)	**Ambient temperature** Operating Storage	-40° to +100°C (-40° to +212°F) -45° to +105°C (-49° to +221°F)
No-load supply current (I_o)	≤ 20 mA (ON)	**Degree of protection**	IP 67 (Nema 1, 3, 4, 6, 13)
Voltage drop (U_d)	< 2,4 V (@ I_{max})	**Housing material**	Nickel-plated brass
Protection	Short circuit	**CE-marking**	Yes
Frequency of operating cycles (f)	IA12ASF: 2 kHz IA12ASN: 1 kHz	**Connection**	Cable, 2 m, PUR, AWG 22 or Plug M12, CONH1A-xxx serie
Indication for output ON	LED, yellow		
Sensing distance	IA12ASF: 2 mm IA12ASN: 4 mm		

SENSOTRONIK

Dimensions

M12 x 1

40

LED

IA 12 ASF 02 .. .. -K

**Plug version:
60 mm axial length**

M12 x 1

6

34 | 40

LED
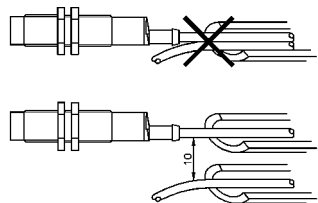
IA 12 ASN 04 .. .. -K

**Plug version:
60 mm axial length**

Wiring Diagram
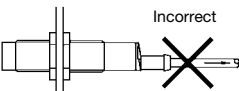
1 BN   +

4 BK

3 BU   −

PNP
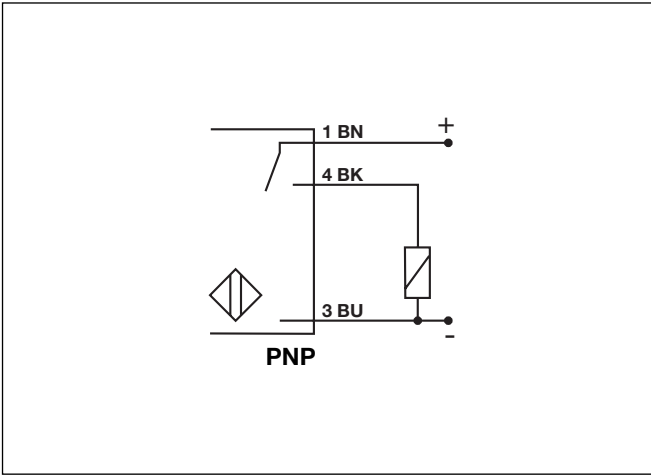
Installation Hints

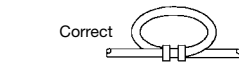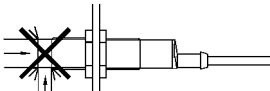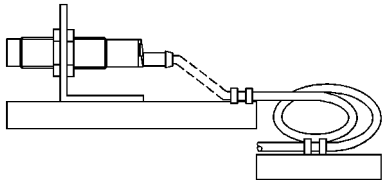| *To avoid interference from inductive voltage/current peaks, separate the prox. switch power cables from any other power cables, e.g. motor, contactor or solenoid cables*	*Relief of cable strain*	*Protection of the sensing face*	*Switch mounted on mobile carrier*
	Incorrect		
	Correct		
	The cable should not be pulled	A proximity switch should not serve as mechanical stop	Any repetitive flexing of the cable should be avoided