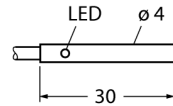


Inductive sensor **Stainless steel front** **NI3-EH04F-AN6X**

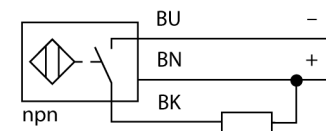
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- Smooth barrel, Ø 4 mm
- Stainless steel 1.4305
- DC 3-wire, 10...30 VDC
- NO contact, NPN output
- Cable connection

Wiring Diagram



Functional principle

The inductive all-metal switches operate on the basis of the electromagnetic pulse method. Unlike standard inductive sensors, the magnetic field is not generated through oscillation but through short, periodic current pulses flowing through the coil. The magnetic field induces voltage in the object to be detected, which, for its part creates a current flow in this object. After switching off the current pulse, the current in the object also drops, now inducing voltage back in the emitter coil. This voltage is the wanted signal and remains unaffected by energy dissipation in the magnetic field. Only non-ferromagnetic or poorly conductive metals provide a low signal.

Type designation	NI3-EH04F-AN6X
Ident-No.	100002320
Rated switching distance Sn	3 mm
Mounting conditions	Non-flush
Secured operating distance	≤ (0,81 x Sn) mm
Correction factors	St37 = 1; Al = 1; Cu = 0.95; stainless steel 1 mm = 0.4; stainless steel 2 mm = 0.85; Ms = 1.4
Repeat accuracy	≤ 5 % of full scale
Static pressure	≤ 120 bar
Temperature drift	≤ ± 10 %
Hysteresis	20 %
Ambient temperature	-25...+70 °C
Operating voltage	10...30 VDC
Residual ripple	≤ 20 % U _{ss}
DC rated operational current	≤ 200 mA
No-load current I ₀	≤ 10 mA
Residual current	≤ 0.1 mA
Isolation test voltage	≤ 0.5 kV
Short-circuit protection	yes/ Cyclic
Voltage drop at I _N	≤ 2 V
Wire breakage/Reverse polarity protection	yes/ Complete
Output function	3-wire, NO contact, NPN
Switching frequency	1.2 kHz
Design	Smooth barrel, 4 mm
Dimensions	30 mm
Housing material	Stainless steel, 1.4305 (AISI 303)/PBT-GF15
Active area material	Stainless steel, 1.4305 (AISI 303)
End cap	Metal
Admissible pressure on front cap	≤ 120 bar
Electrical connection	Cable
Cable quality	2.6mm, PUR, 2
Cable cross section	3 x 0.055 mm ²
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP67

Switching state LED, Yellow, LED flashing: 0.8 s, < s ≤ s.

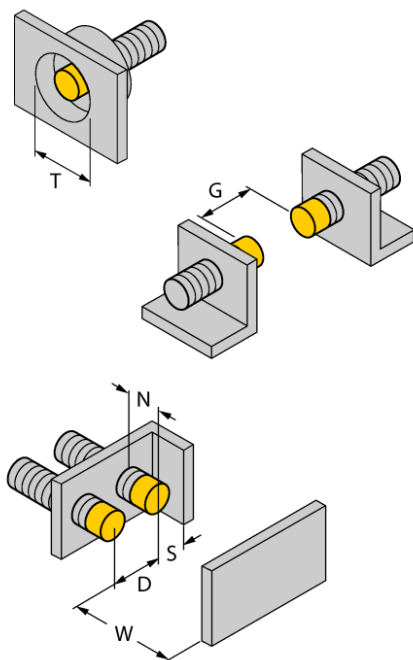
Inductive sensor
Stainless steel front
NI3-EH04F-AN6X

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Distance D	40 mm
Distance W	9 mm
Distance T	18 mm
Distance S	9 mm
Distance G	6 x Sn
Distance N	9 mm

Diameter active area B	Ø 4 mm
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Inductive sensor
 Stainless steel front
 NI3-EH04F-AN6X



Accessories

Type code	Ident-No.	Description	
BS 540	69475	Fixing clamp; material mounting block: Anodized aluminium; clamp sleeve: Steel	
MBS40	69477	Fixing clamp; material mounting block: Anodized aluminium	