

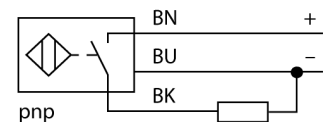
# Inductive sensor NI3-EG08-AP6X

**TURCK**

Industrial  
Automation

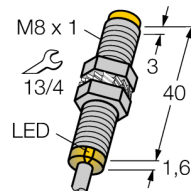
- Threaded barrel, M8 x 1
- Stainless steel, 1.4404
- 3-wire DC, 10...30 VDC
- NO contact, PNP output
- Cable connection

### Wiring diagram



### Functional principle

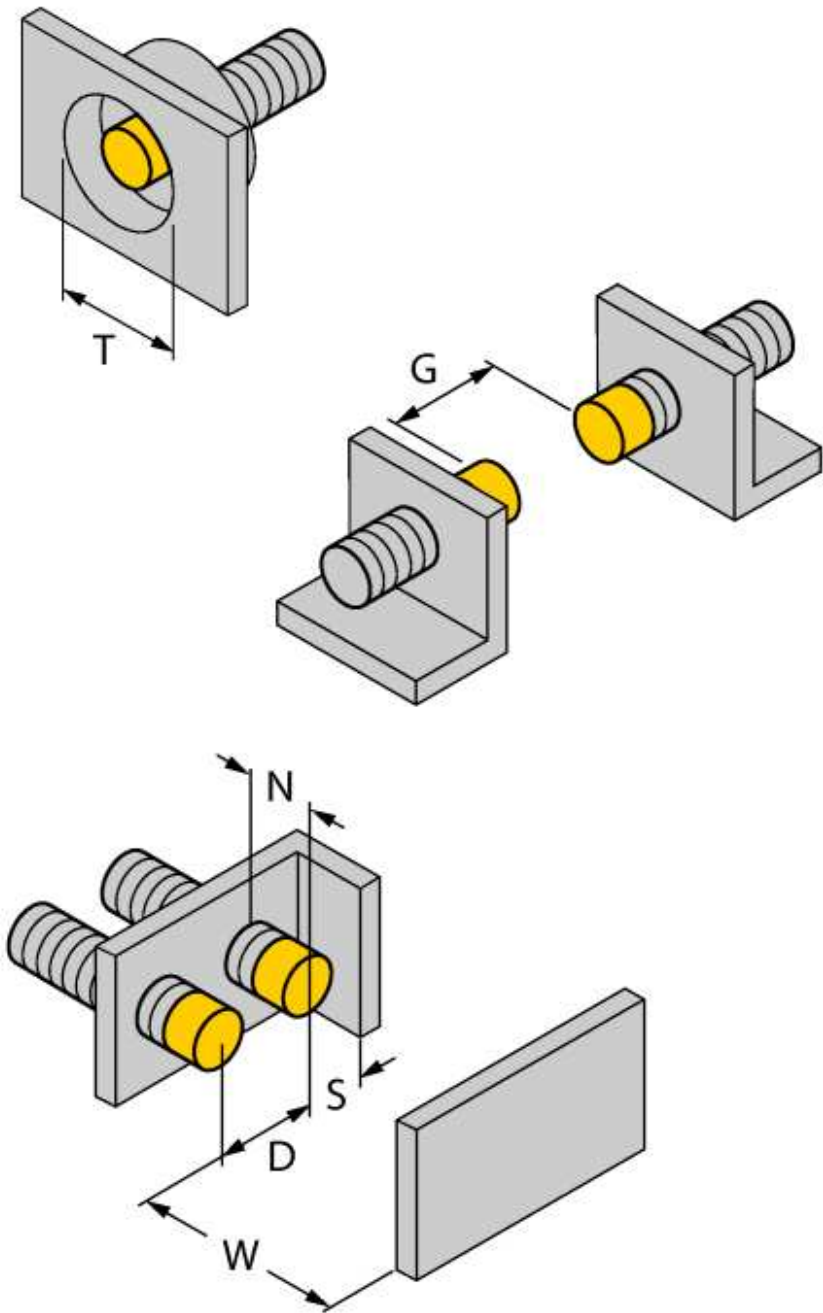
Inductive sensors detect metal objects contactless and wear-free. For this purpose they use a high-frequency electromagnetic AC field that interacts with the target. The sensors hosting a ferrite core coil generate the AC field through an LC resonant circuit.



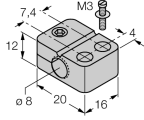
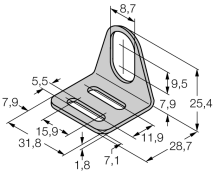
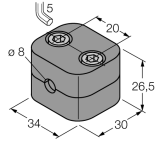
<b>Type code</b>	NI3-EG08-AP6X
Ident no.	4602740
<b>Rated operating distance Sn</b>	3 mm
Mounting condition	non-flush
Assured sensing range	$\leq (0,81 \times S_n)$ mm
Correction factors	St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4
Repeatability	$\leq 2\%$ of full scale
Temperaturdrift	10 %
Hysteresis	3...15 %
Ambient temperature	-25...+70 °C
<b>Operating voltage</b>	10...30VDC
Residual ripple	$\leq 10\% U_{ss}$
DC rated operational current	$\leq 150$ mA
No-load current $I_0$	$\leq 15$ mA
Residual current	$\leq 0.1$ mA
Rated insulation voltage	$\leq 0.5$ kV
Short-circuit protection	yes/ cyclic
Voltage drop at $I_N$	$\leq 1.8$ V
Wire breakage / Reverse polarity protection	yes/ complete
Output function	3-wire, NO contact, PNP
Switching frequency	3 kHz
<b>Design</b>	threaded barrel, M8 x 1
Dimensions	41.6 mm
Housing material	Metal, V4A (1.4404)
Material active face	Plastic, PA
End cap	Plastic, PP
Max. tightening torque housing nut	10 Nm
Connection	cable
Cable quality	4 mm, LiYY-11Y, PUR, 2 m
Cable cross section	3 x 0.25 mm <sup>2</sup>
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP67
MTTF	2283 years acc. to SN 29500 (Ed. 99) 40 °C
<b>Switching state</b>	● yellow

**Inductive sensor  
NI3-EG08-AP6X**

Distance D	3 x B
Distance W	3 x Sn
Distance T	3 x B
Distance S	1.5 x B
Distance G	6 x Sn
Distance N	2 x Sn
<hr/>	
Diameter of the active area B	Ø 8 mm



**Accessories**

Type code	Ident no.	Description	Dimension drawing
BST-08B	6947210	Fixing clamp for threaded barrel devices, with dead-stop; material: PA6	 <p>Technical drawing of a rectangular fixing clamp. Dimensions: 12 (height), 7.4 (width), 20 (length), 16 (width of base), 4 (width of top flange), and M3 (thread size of the top screw).</p>
MW-08	6945008	Mounting bracket for threaded barrel devices; material: Stainless steel A2 1.4301 (AISI 304)	 <p>Technical drawing of a U-shaped mounting bracket. Dimensions: 8.7 (width of top flange), 9.5 (height of top flange), 25.4 (total height), 7.9 (height of base), 11.9 (width of base), 28.7 (total width), 1.8 (width of base lip), 7.1 (width of base lip), 15.9 (width of base lip), 31.8 (total width of base lip), 5.5 (width of base lip), and 7.9 (width of base lip).</p>
BSS-08	6901322	Mounting bracket for smooth and threaded barrel devices; material: Polypropylene	 <p>Technical drawing of a rectangular mounting bracket. Dimensions: 5 (height of top flange), 20 (width of top flange), 26.5 (total height), 34 (total width), 30 (width of base), and 8 (width of base lip).</p>