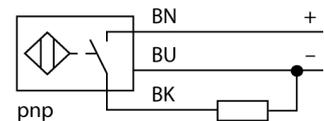


**Inductive sensor
with extended temperature range
BI2-EG08-AP6X/S100**

- Threaded barrel, M8 x 1
- Stainless steel, 1.4404
- For temperatures up to +100 °C
- 3-wire DC, 10...30 VDC
- NO contact, PNP output
- Cable connection

Wiring diagram

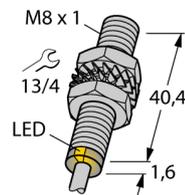
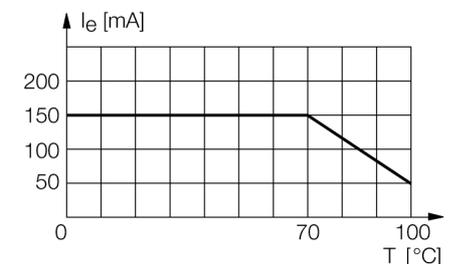


Functional principle

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.

Special versions are available for ambient temperatures between -60°C and +250°C.

derating curve

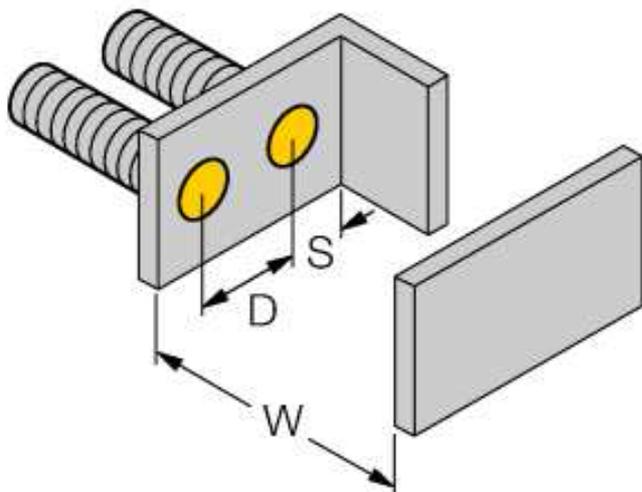
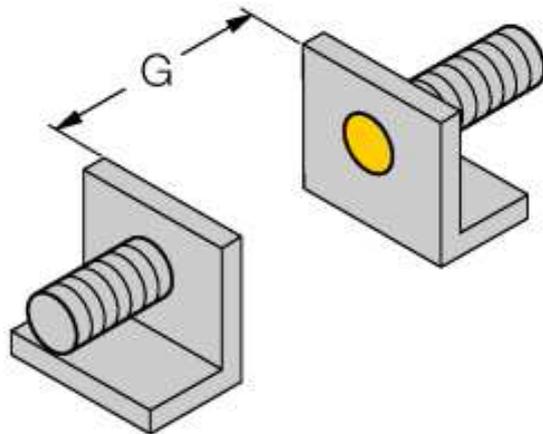
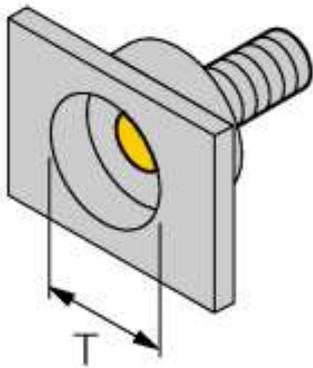


| | |
|---|---|
| Type code | BI2-EG08-AP6X/S100 |
| Ident no. | 4602047 |
| Rated operating distance Sn | 2 mm |
| Mounting condition | flush |
| Assured sensing range | δ (0,81 x Sn) mm |
| Correction factors | St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4 |
| Repeatability | δ 2 % of full scale |
| Temperaturdrift | 10 % |
| | δ ± 20 %, i +70 °C |
| Hysteresis | 3...15 % |
| Ambient temperature | -25...+100 °C |
| Operating voltage | 10...30VDC |
| Residual ripple | δ 10 % U _{in} |
| DC rated operational current | δ 150 mA |
| Rated operational current | see derating curve |
| No-load current I ₀ | δ 15 mA |
| Residual current | δ 0.1 mA |
| Rated insulation voltage | δ 0.5 kV |
| Short-circuit protection | yes/ cyclic |
| Voltage drop at I _N | δ 1.8 V |
| Wire breakage / Reverse polarity protection | yes/ complete |
| Output function | 3-wire, NO contact, PNP |
| Switching frequency | 3 kHz |
| Design | threaded barrel, M8 x 1 |
| Dimensions | 42 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 | 3 mm, grey, Lif32Y32Y, TPE, 2 m |
| Cable cross section | 3 x 0.14 mm ² |
| 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 |
| Switching state | ñ yellow |

**Inductive sensor
with extended temperature range
BI2-EG08-AP6X/S100**

| | |
|------------|---------|
| Distance D | 2 x B |
| Distance W | 3 x Sn |
| Distance T | 3 x B |
| Distance S | 1.5 x B |
| Distance G | 6 x Sn |

Diameter of the active area B \varnothing 8 mm

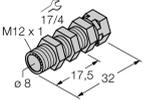
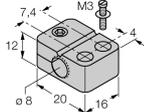
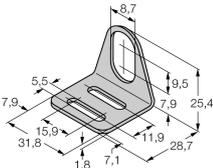
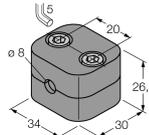


**Inductive sensor
with extended temperature range
BI2-EG08-AP6X/S100**

TURCK

Industrial
Automation

Accessories

| Type code | Ident no. | Description | Dimension drawing |
|-----------|-----------|--|---|
| QM-08 | 6945100 | Quick-mount bracket with dead-stop, chrome-plated brass, male thread M12 x 1. Note: The switching distance of proximity switches may be reduced through the use of quick-mount brackets. |  <p>Technical drawing of a quick-mount bracket (QM-08) showing dimensions: M12 x 1 thread, 17.4 mm length, 17.5 mm diameter, and 32 mm total length.</p> |
| BST-08B | 6947210 | Fixing clamp for threaded barrel devices, with dead-stop; material: PA6 |  <p>Technical drawing of a fixing clamp (BST-08B) showing dimensions: 7.4 mm height, M3 thread, 12 mm width, 20 mm length, 16 mm depth, and 8 mm diameter hole.</p> |
| MW-08 | 6945008 | Mounting bracket for threaded barrel devices; material: Stainless steel A2 1.4301 (AISI 304) |  <p>Technical drawing of a mounting bracket (MW-08) showing dimensions: 8.7 mm height, 5.5 mm width, 7.9 mm depth, 15.9 mm length, 31.8 mm total length, 1.8 mm thickness, 7.1 mm hole offset, 11.9 mm hole diameter, 28.7 mm total width, 7.9 mm hole diameter, 9.5 mm hole offset, and 25.4 mm total height.</p> |
| BSS-08 | 6901322 | Mounting bracket for smooth and threaded barrel devices; material: Polypropylene |  <p>Technical drawing of a mounting bracket (BSS-08) showing dimensions: 15 mm height, 20 mm width, 26.5 mm depth, 34 mm total length, 30 mm hole offset, and 8 mm diameter hole.</p> |