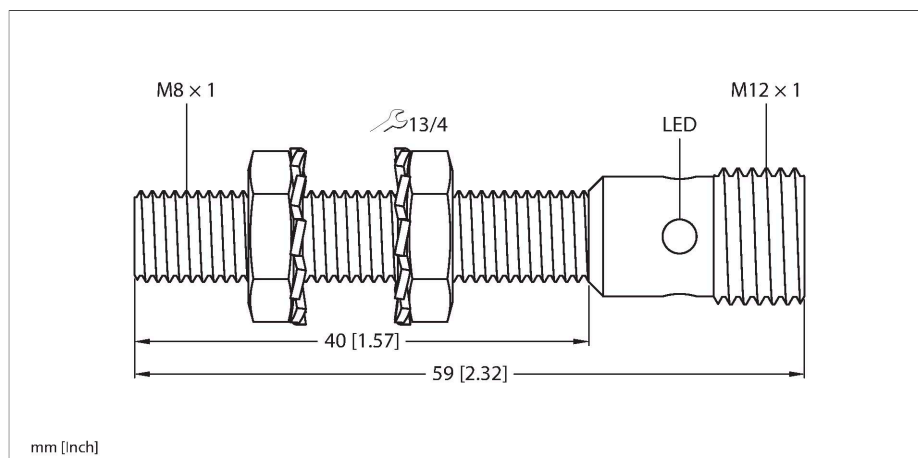


# BI2-EG08-AN6X-H1341

## Inductive Sensor – With Increased Switching Distance



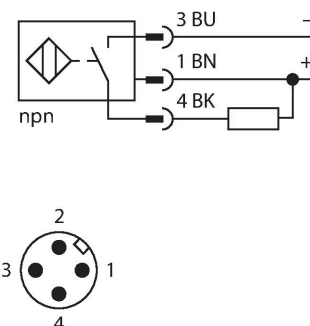
### Technical data

|   |   |
|---|---|
| Type                                      | BI2-EG08-AN6X-H1341                                 |
| ID  | 4602160   |
| <b>General data</b>                       |   |
| Rated switching distance                  | 2 mm  |
| Mounting conditions                       | Flush   |
| Secured operating distance                | $\leq (0.81 \times S_n)$ mm                         |
| Correction factors                        | St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4 |
| Repeat accuracy                           | $\leq 2\%$ of full scale                            |
| Hysteresis                                | 20 %  |
| <b>Electrical data</b>                    |   |
| Operating voltage                         | 10...30 VDC   |
| Residual ripple                           | $\leq 10\%$ $U_{ss}$                                |
| DC rated operational current              | $\leq 150$ mA                                       |
| No-load current                           | 15 mA   |
| Residual current                          | $\leq 0.1$ mA                                       |
| Isolation test voltage                    | $\leq 0.5$ kV                                       |
| Short-circuit protection                  | yes / Cyclic  |
| Voltage drop at $I_o$                     | $\leq 1.8$ V  |
| Wire breakage/Reverse polarity protection | yes / Complete                                      |
| Output function                           | 3-wire, NO contact, NPN                             |
| Switching frequency                       | 3 kHz   |
| <b>Mechanical data</b>                    |   |
| Design                                    | Threaded barrel, M8 x 1                             |
| Dimensions                                | 59 mm   |
| Housing material                          | Stainless steel, 1.4305 (AISI 303)                  |
| Active area material                      | Plastic, PA6.6                                      |

### Features

- M8 x 1 threaded barrel
- Stainless steel, 1.4305 (AISI 303)
- Large sensing range
- DC 3-wire, 10...30 VDC
- NO contact, NPN output
- M12 x 1 male connector

### Wiring diagram



### Functional principle

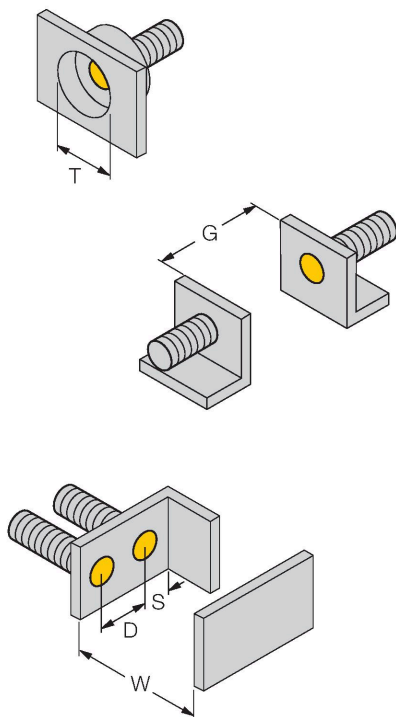
Inductive sensors detect metal objects contactless and wear-free. For this, they use a high-frequency electromagnetic AC field that interacts with the target. Inductive sensors generate this field via an RLC circuit with a ferrite coil.

## Technical data

|                                       |  |
|---------------------------------------|--|
| Max. tightening torque of housing nut | 5 Nm                                       |
| Electrical connection                 | Connector, M12 × 1                         |
| <b>Environmental conditions</b>       |  |
| Ambient temperature                   | -25...+70 °C                               |
| 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                       | LED, Yellow                                |

## Mounting instructions

### Mounting instructions/Description



|                        |         |
|------------------------|---------|
| 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 active area B | Ø 8 mm  |

