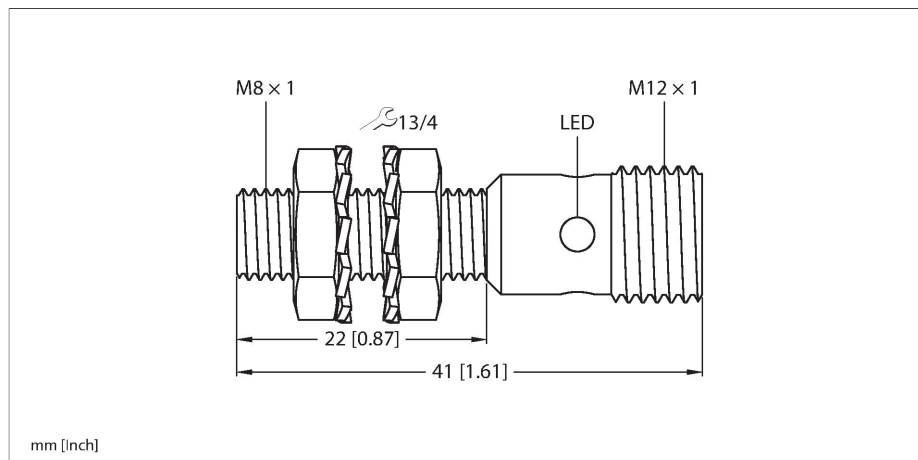


# BI1.5-EG08K-AP6X-H1341

## Inductive Sensor



### Technical data

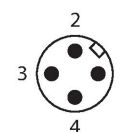
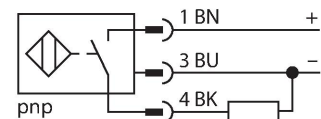
|                                        |                                                     |
|----------------------------------------|-----------------------------------------------------|
| Type                                   | BI1.5-EG08K-AP6X-H1341                              |
| ID                                     | 4669050                                             |
| <b>General data</b>                    |                                                     |
| Rated switching distance               | 1.5 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 $U_B$                | 10...30 VDC                                         |
| Ripple $U_{ss}$                        | $\leq 10\%$ $U_{Bmax}$                              |
| DC rated operating current $I_o$       | $\leq 150$ mA                                       |
| No-load current                        | $\leq 15$ mA                                        |
| Residual current                       | $\leq 0.1$ mA                                       |
| Isolation test voltage                 | 0.5 kV                                              |
| Short-circuit protection               | yes/Cyclic                                          |
| Voltage drop at $I_o$                  | $\leq 1.8$ V                                        |
| Wire break/reverse polarity protection | yes/Complete                                        |
| Output function                        | 3-wire, NO contact, PNP                             |
| Switching frequency                    | 3 kHz                                               |
| <b>Mechanical data</b>                 |                                                     |
| Design                                 | Threaded barrel, M8 x 1                             |
| Dimensions                             | 41 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)
- DC 3-wire, 10...30 VDC
- NO contact, PNP 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                         |
| Environmental conditions              |                                            |
| 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                                |

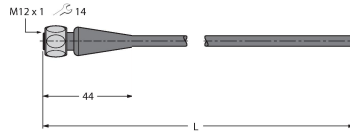
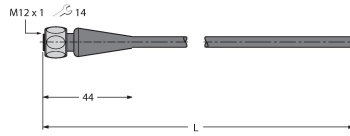
Mounting instructions

| 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  |
|                                                                                    |                        |         |

Accessories

|                                                                                     |         |                                                                                              |                                                                                    |         |                                                                                                                                                                                          |
|-------------------------------------------------------------------------------------|---------|----------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| BST-08B                                                                             | 6947210 | Mounting clamp for threaded barrel sensors, with dead-stop; material: PA6                    | 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. |
|    |         |                                                                                              |  |         |                                                                                                                                                                                          |
| MW08                                                                                | 6945008 | Mounting bracket for threaded barrel sensors; material: Stainless steel A2 1.4301 (AISI 304) | BSS-08                                                                             | 6901322 | Mounting clamp for smooth and threaded barrel sensors; material: Polypropylene                                                                                                           |
|    |         |                                                                                              |  |         |                                                                                                                                                                                          |
| MBS80                                                                               | 69479   | Mounting clamp for smooth barrel sensors; mounting block material: Anodized aluminum         |                                                                                    |         |                                                                                                                                                                                          |
|  |         |                                                                                              |                                                                                    |         |                                                                                                                                                                                          |

Accessories

| Dimension drawing                                                                   | Type       | ID      |                                                                                                                                                                        |
|-------------------------------------------------------------------------------------|------------|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | RKH4-2/TFE | 6935482 | Connection cable, M12 female connector, straight, 3-pin, stainless steel coupling nut, cable length: 2 m, jacket material: PVC, gray; temperature range: -25...+80 °C  |
|  | RKH4-2/TFG | 6934384 | Connection cable, M12 female connector, straight, 3-pin, stainless steel coupling nut, cable length: 2 m, jacket material: TPE, gray; temperature range: -40...+105 °C |