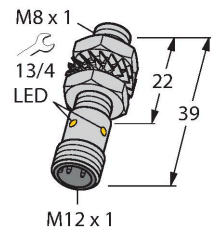


BI2-EG08K-AG41X-H1341/S1589

Inductive Sensor – With Weldguard® coating



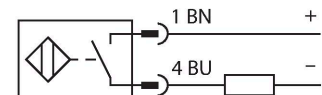
Technical data

| | |
|--|---|
| Type | BI2-EG08K-AG41X-H1341/S1589 |
| ID | 4562090 |
| Special version | S1589 Corresponds to: With weldguard coating |
| General data | |
| 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 | ≤ 2 % of full scale |
| Hysteresis | 1...15 % |
| Electrical data | |
| Operating voltage U_B | 10...55 VDC |
| Ripple U_{rs} | ≤ 10 % U_{Bmax} |
| DC rated operating current I_B | ≤ 100 mA |
| Residual current | ≤ 0.6 mA |
| Isolation test voltage | 0.5 kV |
| Short-circuit protection | yes/Cyclic |
| Voltage drop at I_B | ≤ 3.5 V |
| Wire break/reverse polarity protection | Polarized |
| Output function | NO contact, 2-wire |
| Smallest operating current | ≥ 3 mA |
| Switching frequency | 0.3 kHz |

Features

- Threaded barrel, M8 x 1
- Stainless steel, 1.4427 SO
- DC 2-wire, 10...55 VDC
- Polarized version
- NO contact
- M12 x 1 male connector

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.

Technical data

| Mechanical data | |
|---------------------------------------|--|
| Design | Threaded barrel, M8 x 1 |
| Dimensions | 39 mm |
| Housing material | Stainless steel, 1.4427 SO |
| Active area material | Plastic, PA12-GF20 |
| Max. tightening torque of housing nut | 5 Nm |
| Electrical connection | Connector, M12 x 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

Diagram showing the side view of the mounting bracket. Dimension T is indicated as the distance from the center of the active area to the edge of the bracket.

Diagram showing the top view of the mounting bracket. Dimension G is indicated as the distance between the centers of the two active areas.

Diagram showing the front view of the mounting bracket. Dimensions D, S, W, and B are indicated. D is the distance from the center of the active area to the edge of the bracket. S is the distance from the center of the active area to the edge of the bracket. W is the width of the bracket. B is the diameter of the active area.

| | |
|------------------------|---------|
| 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 |

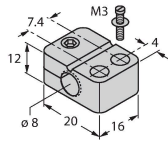
BI2-EG08K-AG41X-H1341/S1589| 02/21/2025 14-01 | technical changes reserved

Accessories

BST-08B

6947210

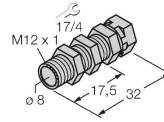
Mounting clamp for threaded barrel sensors, with dead-stop; material: PA6



QM-08

6945100

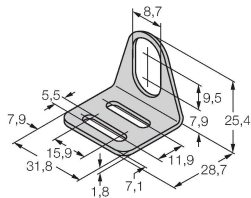
Quick-mount bracket with dead-stop, chrome-plated brass, male thread M12 x 1. Note: The switching distance of proximity switches may be reduced through the use of quick-mount brackets.



MW08

6945008

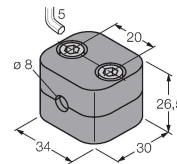
Mounting bracket for threaded barrel sensors; material: Stainless steel A2 1.4301 (AISI 304)



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

