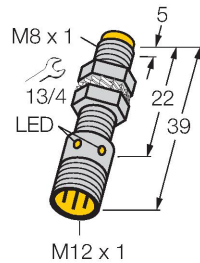


# NI4-EG08K-AG41X-H1341

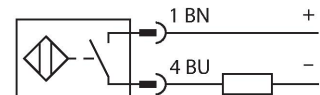
## Inductive Sensor – With Increased Switching Distance



### Features

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

### Wiring diagram



### Technical data

|                                        |                                                     |
|----------------------------------------|-----------------------------------------------------|
| Type                                   | NI4-EG08K-AG41X-H1341                               |
| ID                                     | 4561011                                             |
| <b>General data</b>                    |                                                     |
| Rated switching distance               | 4 mm                                                |
| Mounting conditions                    | Non-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                            |
| Temperature drift                      | $\leq \pm 10$ %                                     |
| Hysteresis                             | 1...15 %                                            |
| <b>Electrical data</b>                 |                                                     |
| Operating voltage $U_B$                | 10...55 VDC                                         |
| Ripple $U_{ss}$                        | $\leq 10$ % $U_{Bmax}$                              |
| DC rated operating current $I_o$       | $\leq 100$ mA                                       |
| Residual current                       | $\leq 0.6$ mA                                       |
| Isolation test voltage                 | 0.5 kV                                              |
| Short-circuit protection               | yes/Cyclic                                          |
| Voltage drop at $I_o$                  | $\leq 3.5$ V                                        |
| Wire break/reverse polarity protection | Polarized                                           |
| Output function                        | NO contact, 2-wire                                  |
| Smallest operating current             | $\geq 3$ mA                                         |
| Switching frequency                    | 0.3 kHz                                             |

### 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

| 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

The image contains three technical drawings illustrating the mounting of a sensor. The top drawing is a side view showing the sensor (yellow cylinder) mounted on a plate with a dimension line labeled 'T' indicating the distance from the plate edge to the sensor center. The middle drawing is a top view showing the sensor mounted on a plate with a dimension line labeled 'G' indicating the distance between the sensor and the plate edge. The bottom drawing is a perspective view showing the sensor mounted on a plate with dimensions 'N' (height), 'S' (width), 'D' (depth), and 'W' (width) indicated by dimension lines.

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

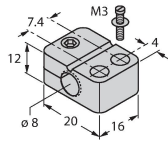
N14-EG08K-AG41X-H1341 | 02/21/2025 13:47 | technical changes reserved

## Accessories

BST-08B

6947210

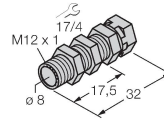
Mounting clamp for threaded barrel sensors, with dead-stop; material: PA6



QM-08

6945100

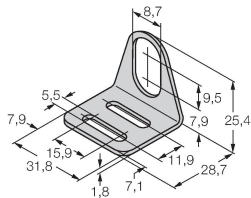
Quick-mount bracket with dead-stop, chrome-plated brass, male thread M12 x 1. Note: The switching distance of proximity switches may be reduced through the use of quick-mount brackets.



MW08

6945008

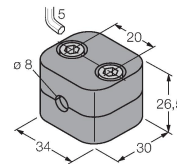
Mounting bracket for threaded barrel sensors; material: Stainless steel A2 1.4301 (AISI 304)



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

