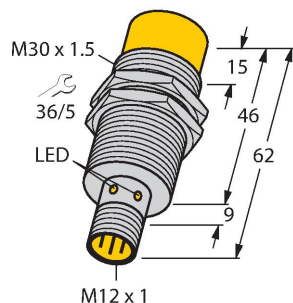


# NI15-M30-AD6X-H1141

## Inductive Sensor

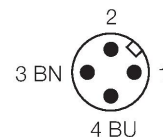
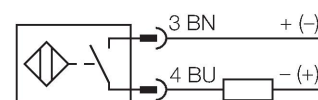


### Features

- M30 × 1.5 threaded tube
- Chrome-plated brass
- DC 2-wire, 10...30 VDC
- NO contact
- M12 x 1 male connector

### Technical data

|                                        |                                                     |
|----------------------------------------|-----------------------------------------------------|
| Type                                   | NI15-M30-AD6X-H1141                                 |
| ID                                     | 100018023                                           |
| <b>General data</b>                    |                                                     |
| Rated switching distance               | 15 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...30 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 $I_o$                  | $\leq 5$ V                                          |
| Wire break/reverse polarity protection | Complete                                            |
| Output function                        | NO contact, 2-wire                                  |
| Smallest operating current             | $\geq 3$ mA                                         |
| Switching frequency                    | 0.5 kHz                                             |
| <b>Mechanical data</b>                 |                                                     |
| Design                                 | Threaded barrel, M30 x 1.5                          |
| Dimensions                             | 62 mm                                               |
| Housing material                       | Metal, CuZn, Chrome-plated                          |



### 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

|                                       |                                            |
|---------------------------------------|--------------------------------------------|
| Active area material                  | Plastic, PA12-GF30                         |
| Max. tightening torque of housing nut | 75 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

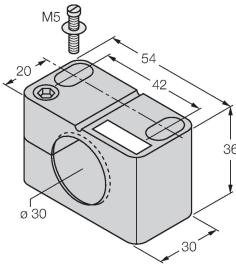
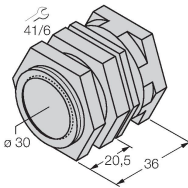
# Mounting instructions/Description

The image contains three technical diagrams illustrating different mounting configurations for a sensor. The sensor is represented by a grey L-shaped bracket with a yellow cylindrical active area.

- Top Diagram:** A side view of the sensor mounted on a vertical plate. Dimension **T** indicates the thickness of the mounting plate.
- Middle Diagram:** A top view showing two sensors mounted on a horizontal plate. Dimension **G** indicates the distance between the centers of the two sensors. **Sn** represents the sensor's footprint.
- Bottom Diagram:** A perspective view of a sensor mounted on a horizontal plate. Dimensions are labeled as follows:
  - N:** Distance from the edge of the plate to the sensor.
  - S:** Spacing between sensors.
  - D:** Distance from the mounting surface to the sensor.
  - W:** Width of the mounting plate.

|                        |         |
|------------------------|---------|
| 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             | 20 mm   |
| Diameter active area B | Ø 30 mm |

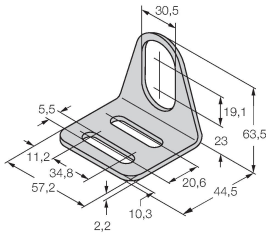
Accessories

|                                                                                     |         |                                                                                                                                                                                              |         |
|-------------------------------------------------------------------------------------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| BST-30B                                                                             | 6947216 | QM-30                                                                                                                                                                                        | 6945103 |
|  |         |                                                                                                          |         |
| Mounting clamp for threaded barrel sensors, with dead-stop; material: PA6           |         | Quick-mount bracket with dead-stop; material: Chrome-plated brass. Male thread M36 × 1.5. Note: The switching distance of the proximity switches may change when using quick-mount brackets. |         |

## MW30

6945005

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



## BSS-30

6901319

Mounting clamp for smooth and threaded barrel sensors; material: Polypropylene

