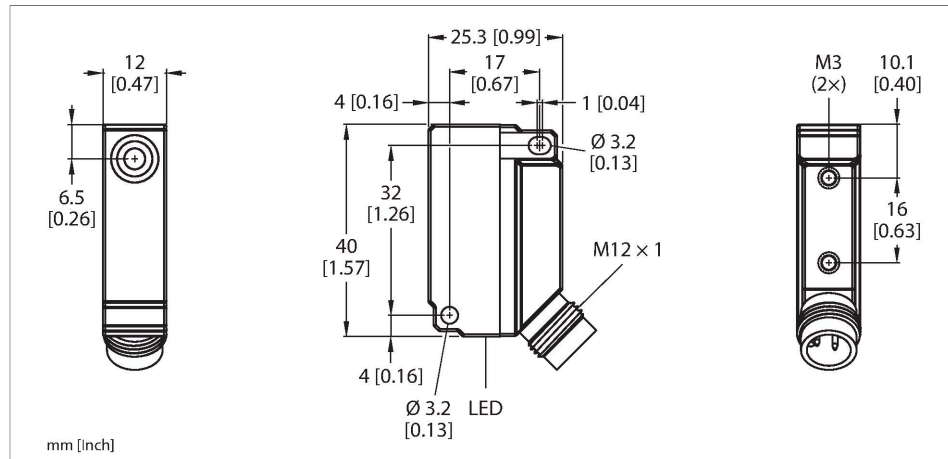


BI5U-Q12-AP6X2-H1141

Inductive Sensor – With Extended Switching Distance



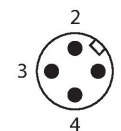
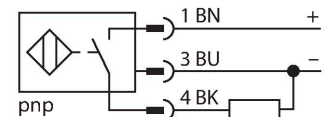
Technical data

| | |
|--|-----------------------------|
| Type | BI5U-Q12-AP6X2-H1141 |
| ID | 1635526 |
| General data | |
| Rated switching distance | 5 mm |
| Mounting conditions | Flush |
| Secured operating distance | $\leq (0.81 \times S_n)$ mm |
| Repeat accuracy | $\leq 2 \%$ of full scale |
| Temperature drift | $\leq \pm 10 \%$ |
| Hysteresis | 3...15 % |
| Electrical data | |
| Operating voltage U_B | 10...30 VDC |
| Ripple U_{ss} | $\leq 10 \%$ U_{Bmax} |
| DC rated operating current I_o | ≤ 200 mA |
| No-load current | ≤ 15 mA |
| Residual current | ≤ 0.1 mA |
| Isolation test voltage | 0.5 kV |
| Short-circuit protection | yes/Cyclic |
| Voltage drop at I_o | ≤ 1.8 V |
| Wire break/reverse polarity protection | yes/Complete |
| Output function | 3-wire, NO contact, PNP |
| DC field stability | 300 mT |
| AC field stability | 300 mT _{ss} |
| Switching frequency | 1 kHz |

Features

- Rectangular, height 12mm
- Active face, lateral
- Plastic, PA12-GF30
- Factor 1 for all metals
- Increased switching distance
- Protection class IP68
- Resistant to magnetic fields
- Mountable on metal
- DC 3-wire, 10...30 VDC
- NO contact, PNP output
- M12 x 1 male connector

Wiring diagram



Functional principle

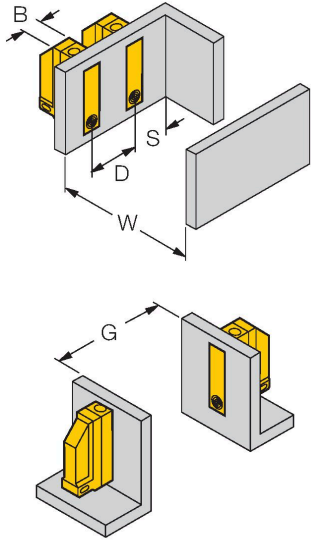
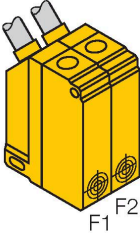
Inductive sensors are designed for wear-free and contactless detection of metal objects. uprox+ sensors have significant advantages due to their patented multi-coil system. They excel thanks to their optimum switching

Technical data

| Mechanical data | |
|--------------------------|---|
| Design | Rectangular, Q12 |
| Dimensions | 40 x 26 x 12 mm |
| Housing material | Plastic, PA12-GF30 |
| Active area material | PA12-GF30 |
| 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 | IP68 |
| MTTF | 874 years acc. to SN 29500 (Ed. 99) 40 °C |
| Power-on indication | LED, Green |
| Switching state | LED, Yellow |

distances, maximum flexibility and operational reliability as well as efficient standardization.


Mounting instructions

| Mounting instructions/Description | | | | | | | | | | |
|---|--|------------|-------|------------|-------|------------|-------|------------|-------|---------------------|
|  |  | | | | | | | | | |
| | <table><tr><td>Distance D</td><td>48 mm</td></tr><tr><td>Distance W</td><td>25 mm</td></tr><tr><td>Distance S</td><td>12 mm</td></tr><tr><td>Distance G</td><td>50 mm</td></tr><tr><td>Width active area B</td><td>12 mm</td></tr></table> | Distance D | 48 mm | Distance W | 25 mm | Distance S | 12 mm | Distance G | 50 mm | Width active area B |
| Distance D | 48 mm | | | | | | | | | |
| Distance W | 25 mm | | | | | | | | | |
| Distance S | 12 mm | | | | | | | | | |
| Distance G | 50 mm | | | | | | | | | |
| Width active area B | 12 mm | | | | | | | | | |

The sensors can be mounted directly side by side if a sensor with offset oscillation frequency BI5U-Q12.../F2 is used.

BI5U-Q12-AP6X2-H1141 | 02/21/2025 13-19 | technical changes reserved

Wiring accessories

| Dimension drawing | Type | ID | |
|---|-------------|---------|---|
|  | RKC4T-2/TEL | 6625010 | Connection cable, M12 female connector, straight, 3-pin, cable length: 2 m, jacket material: PVC, black; cULus approval |