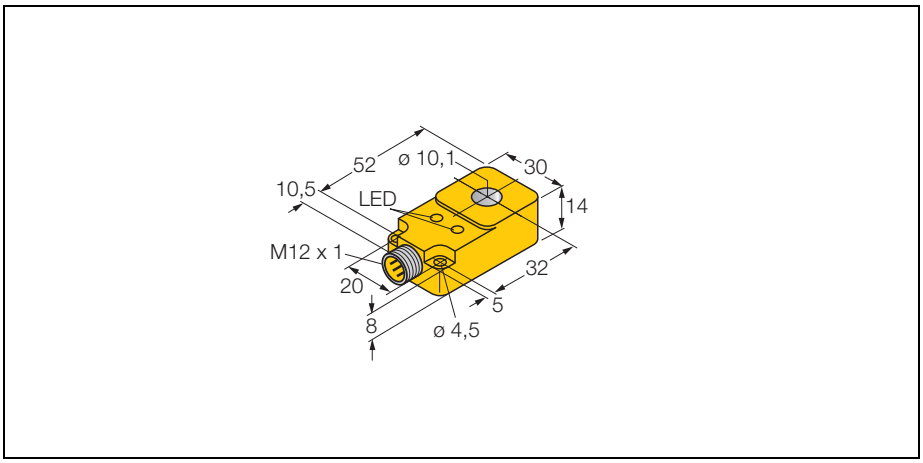
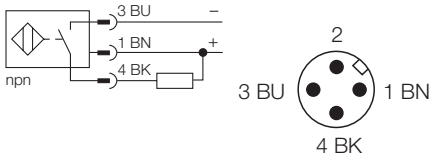
# inductive sensor
# ring sensor
# Bi10R-Q14-AN6X2-H1141

Industrial Automation




- **rectangular, 14 mm high**
- **Plastic, PBT-GF30-V0**
- **static output performance**
- **output pulse length min. 100 ms**
- **3-wire DC, 10…30 VDC**
- **normally open npn output**
- **connector, M12 x 1**

### Wiring diagram




| | |
|---|---|
| **Type** | Bi10R-Q14-AN6X2-H1141 |
| Ident-No. | 1407120 |
| **Internal ring diameter** | 10.1 mm |
| Steel ball diameter (DIN 5401) | ≥ 2 mm |
| Pulse stop | ≥ 5 ms |
| Impulsdauer am Ausgang | ≥ 100ms ± 20 % |
| Ambient temperature | -25…+ 70 °C |
| **Operating voltage** | 10… 30VDC |
| Residual ripple | ≤ 10 % $U_{ss}$ |
| DC rated operational current | ≤ 200 mA |
| No-load current $I_0$ | ≤ 15 mA |
| Residual current | ≤ 0.1 mA |
| Rated insulation voltage | ≤ 0.5 kV |
| Short-circuit protection | yes / cyclic |
| Voltage drop at $I_e$ | ≤ 1.8V |
| Wire breakage / Reverse polarity protection | yes / complete |
| Output function | 3-wire, normally open, npn |
| Switching frequency | ≤ 0.008 kHz |
| **Housing** | ring sensor, Q14 |
| Dimensions | 62.5 x 30 x 14 mm |
| Housing material | plastic, PBT-GF30-V0 |
| Connection | connectors, M12 x 1 |
| Coil body | plastic, POM |
| Vibration resistance | 55 Hz (1 mm) |
| Shock resistance | 30g (11 ms) |
| Degree of protection | IP67 |
| **Operating voltage display** | LED green |
| Display switch state | LED yellow |

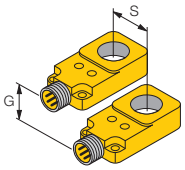
### Functional principle

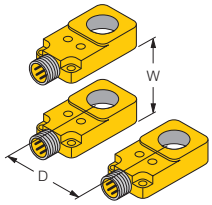
Inductive sensors are designed for wear-free and non-contact detection of metal objects. For this purpose they use a high-frequency electro-magnetic AC field that interacts with the target. Inductive ring sensors generate this field by an LC resonant circuit. The target acts as the coil core.

• Edition: • 25.11.2008

# inductive sensor
# ring sensor
# Bi10R-Q14-AN6X2-H1141

| **Mounting instructions** | minimum distances |
|---|---|
| Distance D | 45 mm |
| Distance W | 45 mm |
| Distance S | 14 mm |
| Distance G | 30 mm |




● Edition: • 25.11.2008