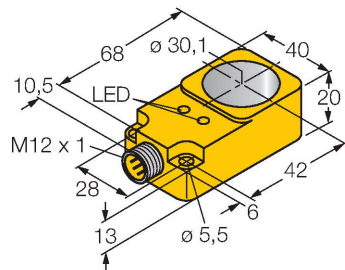


# BI30R-Q20-AN6X2-H1141

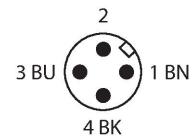
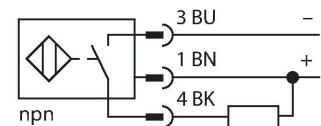
## Inductive Sensor – Ring Sensor



### Features

- Rectangular, height 20 mm
- Plastic, PBT-GF30-V0
- Static output behaviour
- Output pulse length min. 100 ms
- DC 3-wire, 10...30 VDC
- NO contact, NPN output
- 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. Inductive ring sensors generate this field through an LC resonant circuit. The target acts as the coil core.

### Technical data

|   |                         |
|---|-------------------------|
| Type                                      | BI30R-Q20-AN6X2-H1141   |
| ID  | 1407520                 |
| <b>General data</b>                       |                         |
| Inside ring diameter D                    | 30.1 mm                 |
| Steel ball diameter (DIN 5401)            | ≥ 6 mm                  |
| Fly-by speed                              | 40 m/s                  |
| pulse stop                                | ≥ 5 ms                  |
| Pulse duration at the output              | ≥ 100 ms ± 20 %         |
| <b>Electrical data</b>                    |                         |
| Operating voltage                         | 10...30 VDC             |
| Residual ripple                           | ≤ 10 % U <sub>ss</sub>  |
| DC rated operational current              | ≤ 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 <sub>o</sub>            | ≤ 1.8 V                 |
| Wire breakage/Reverse polarity protection | yes / Complete          |
| Output function                           | 3-wire, NO contact, NPN |
| Switching frequency                       | 0.008 kHz               |
| <b>Mechanical data</b>                    |                         |
| Design                                    | Ring sensor, Q20        |
| Dimensions                                | 68 x 40 x 20 mm         |
| Housing material                          | Plastic, PBT-GF30-V0    |
| Electrical connection                     | Connector, M12 × 1      |
| Coil body                                 | plastic, POM            |

## Technical data

| Environmental conditions |  |
|--------------------------|--|
| Ambient temperature      | -25...+70 °C                               |
| Vibration resistance     | 55 Hz (1 mm)                               |
| Shock resistance         | 30 g (11 ms)                               |
| Protection class         | IP65                                       |
| MTTF                     | 2283 years acc. to SN 29500 (Ed. 99) 40 °C |
| Power-on indication      | LED, Green                                 |
| Switching state          | LED, Yellow                                |

## Mounting instructions

| Mounting instructions/Description |            |       |
|-----------------------------------|------------|-------|
|                                   | Distance D | 55 mm |
|                                   | Distance W | 40 mm |
|                                   | Distance S | 20 mm |
|                                   | Distance G | 40 mm |
|                                   | Distance C | 0 mm  |

## 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 |