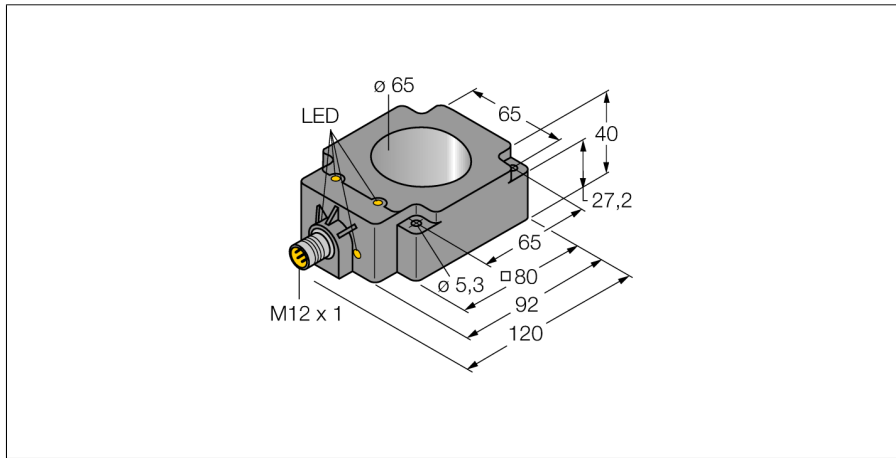
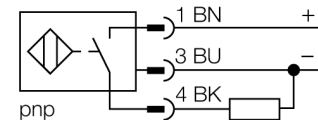


**Inductive sensor  
ring sensor  
BI65R-Q80-AP6X2-H1141**



- Rectangular, height 40 mm
- Plastic, PBT-GF30-V0
- Static output performance
- Output pulse length min. 100 ms
- 3-wire DC, 10...30 VDC
- NO contact, PNP output
- Male M12 x 1

**Wiring diagram**



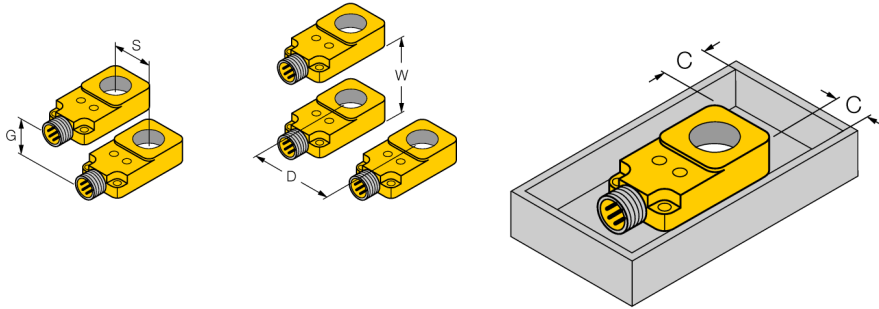
**Functional principle**

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.

|   |  |
|---|--|
| <b>Type code</b>                            | BI65R-Q80-AP6X2-H1141                      |
| Ident no.                                   | 1407531                                    |
| <b>Inside ring diameter D</b>               | 65 mm                                      |
| Steel ball diameter (DIN 5401)              | ≥ 10 mm                                    |
| Mounting condition                          | non-flush                                  |
| pulse stop                                  | ≥ 1 ms                                     |
| Pulse duration at the output                | 100 ms ± 20 %                              |
| Ambient temperature                         | -25...+70 °C                               |
| <b>Operating voltage</b>                    | 10...30VDC                                 |
| Residual ripple                             | ≤ 10 % U <sub>in</sub>                     |
| DC rated operational current                | ≤ 200 mA                                   |
| No-load current I <sub>0</sub>              | ≤ 15 mA                                    |
| Residual current                            | ≤ 0.1 mA                                   |
| Rated insulation voltage                    | ≤ 0.5 kV                                   |
| Short-circuit protection                    | yes/ cyclic                                |
| Voltage drop at I <sub>0</sub>              | ≤ 1.8 V                                    |
| Wire breakage / Reverse polarity protection | yes/ complete                              |
| Output function                             | 3-wire, NO contact, PNP                    |
| Switching frequency                         | 0.01 kHz                                   |
| <b>Design</b>                               | ring sensor, Q80                           |
| Dimensions                                  | 92 x 80 x 40 mm                            |
| Housing material                            | plastic, PBT                               |
| Connection                                  | male, M12 x 1                              |
| Coil body                                   | plastic, PA66                              |
| 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 |
| <b>Power-on indication</b>                  | LED green                                  |
| Switching state                             | LED yellow                                 |

**Inductive sensor  
ring sensor  
BI65R-Q80-AP6X2-H1141**

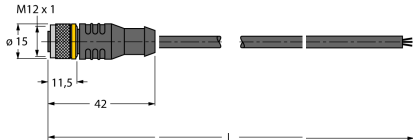
|            |        |
|------------|--------|
| Distance D | 140 mm |
| Distance W | 150 mm |
| Distance S | 65 mm  |
| Distance G | 90 mm  |
| Distance C | 30 mm  |



mounting on a metal plate is not permitted

**Inductive sensor  
ring sensor  
BI65R-Q80-AP6X2-H1141**

**Wiring accessories**

| Type code   | Ident no. | Description  | Dimension drawing   |
|-------------|-----------|--|---|
| RKC4T-2/TEL | 6625010   | Connection cable, female M12, straight, 3-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see <a href="http://www.turck.com">www.turck.com</a> |  |