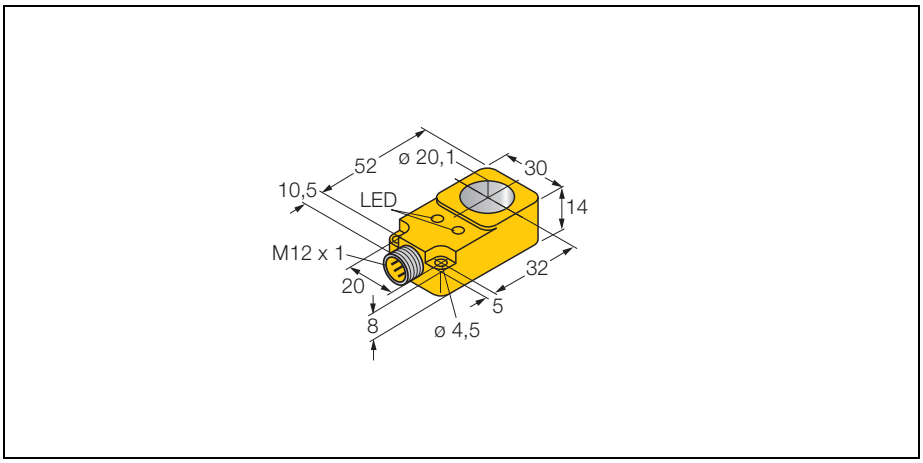
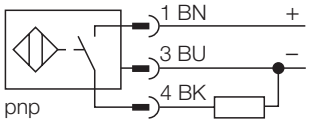
inductive sensor
ring sensor
Bi20R-Q14-AP6X2-H1141

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, pnp output**
- **connector, M12 x 1**

Wiring diagram



Type	Bi20R-Q14-AP6X2-H1141
Ident-No.	1407300
Internal ring diameter	20.1 mm
Steel ball diameter (DIN 5401)	≥ 4 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, pnp
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

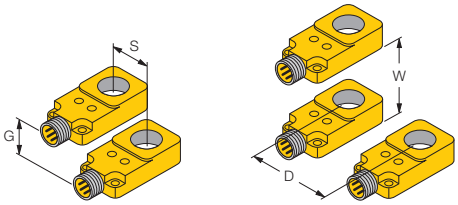
Functional principle

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

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



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