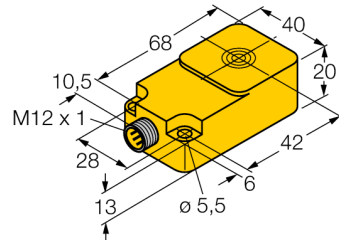


**Inductive sensor
for material recognition
BI8-Q20-2LU-H1141/S950**

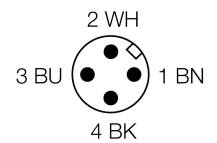
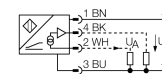
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- Rectangular, height 20 mm
- Active face on top
- Plastic, PBT-GF30-V0
- Analog
- 1x analog output for amplitude evaluation
- 1x analog output for phase evaluation
- M12 x 1 connector

Wiring diagram



Functional principle

Many applications require a fast detection of material qualities. For example, the sorting of beverage cans made of aluminium or tin, or the differentiation of pipes made of different metals. Turck has developed an analog inductive sensor for this purpose that not only processes the amplitude signal but also the phase signal. Both signals are output as analog values and processed mathematically with a control unit. Different metals are thus detected independent of the distance.

Type code	BI8-Q20-2LU-H1141/S950
Ident no.	1534613
Mounting condition	flush
Temperature drift	$\leq 0.5 \%$, after warm-up 0.5 h
Ambient temperature	$\leq \pm 0.06 \%$ / K
Operating voltage	15...30VDC
Residual ripple	$\leq 10 \%$ U_{as}
No-load current I_0	≤ 8 mA
Rated insulation voltage	≤ 0.5 kV
Short-circuit protection	yes
Wire breakage / Reverse polarity protection	yes/ complete
Output function	4-wire, Analog output
Voltage output	0...10V
Voltage output (phase)	≥ 1 ... ≤ 10 VDC
Load resistance voltage output	≥ 4.7 k Ω
Measuring sequence frequency	110 Hz
Design	rectangular, Q20
Dimensions	68x 40x 20 mm
Housing material	Plastic, PBT
Connection	male, M12 x 1
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP67
MTTF	751 years acc. to SN 29500 (Ed. 99) 40 °C

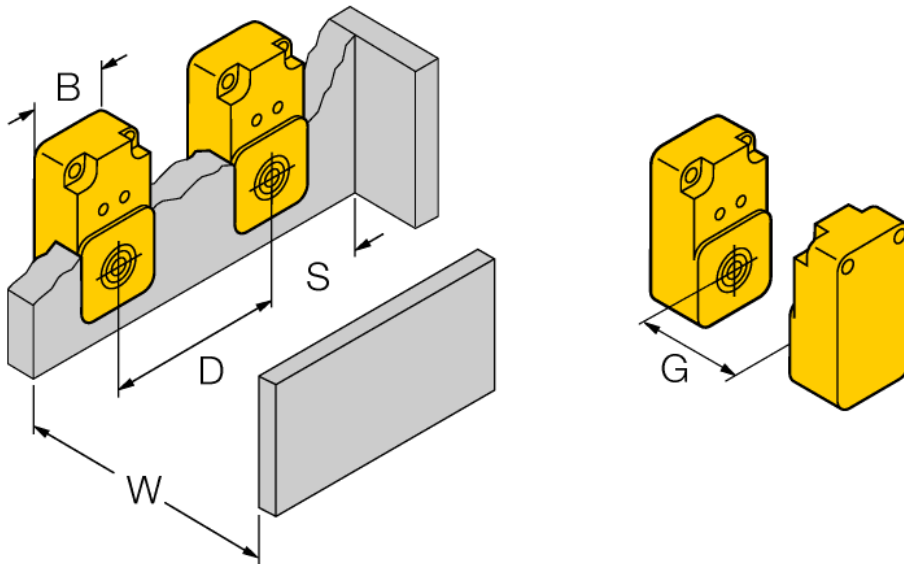
**Inductive sensor
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Distance D	60 mm
Distance W	33 mm
Distance S	40 mm
Distance G	66 mm

Width of the active face B	40 mm
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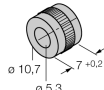


**Inductive sensor
for material recognition
BI8-Q20-2LU-H1141/S950**

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Accessories

Type code	Ident no.	Description	Dimension drawing
MH-Q20MONTAGEHÜLSEN	6950010	Mounted with active face downwards, for Q20	
MW-Q14/Q20	6945006	Mounting bracket for rectangular Q14 or Q20; material VA 1.4301	