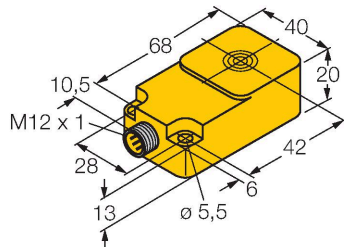


# BI8-Q20-2LU-H1141/S950

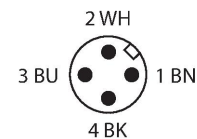
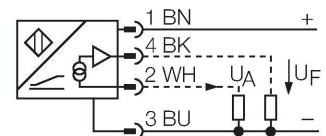
## Inductive Sensor – For Material Recognition



### Features

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

### Wiring diagram



### Technical data

Type	BI8-Q20-2LU-H1141/S950
ID	1534613
Special version	S950 corresponds to: 1× analog amplitude output, 1× analog phase output
<b>General data</b>	
Mounting conditions	Flush
Secured operating distance	≤ (0.81 × S <sub>n</sub> ) mm
	0.5 %, after warm-up 0.5 h
Temperature drift	≤ ± 0.06 %/K
<b>Electrical data</b>	
Operating voltage	15...30 VDC
Residual ripple	≤ 10 % U <sub>ss</sub>
No-load current	8 mA
Isolation test voltage	≤ 0.5 kV
Short-circuit protection	yes
Wire breakage/Reverse polarity protection	no / Complete
Output function	4-wire, Analog output
Voltage output	0...10 V
Voltage output (phase)	≥ 1...≤ 10 VDC
Load resistance voltage output	≥ 4.7 kΩ
Measuring sequence frequency	110 Hz
<b>Mechanical data</b>	
Design	Rectangular, Q20
Dimensions	68 x 40 x 20 mm
Housing material	Plastic, PBT-GF30-V0
Active area material	PBT-GF30-V0

### 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.

## Technical data

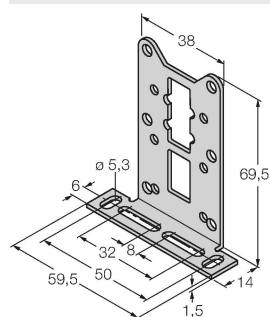
Electrical connection	Connector, M12 × 1
Environmental conditions	
Ambient temperature	-25...+70 °C
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP67
MTTF	751 years acc. to SN 29500 (Ed. 99) 40 °C

## Mounting instructions

Mounting instructions/Description		
	Distance D	60 mm
	Distance W	33 mm
	Distance S	40 mm
	Distance G	66 mm
	Width active area	40 mm
	B	

## Accessories

MW-Q14/Q20	6945006
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Mounting bracket for rectangular Q14 or Q20; material VA 1.4301

## Accessories

Dimension drawing	Type	ID	
	RKC4.4T-2/TEL	6625013	Connection cable, M12 female connector, straight, 4-pin, cable length: 2 m, jacket material: PVC, black; cULus approval