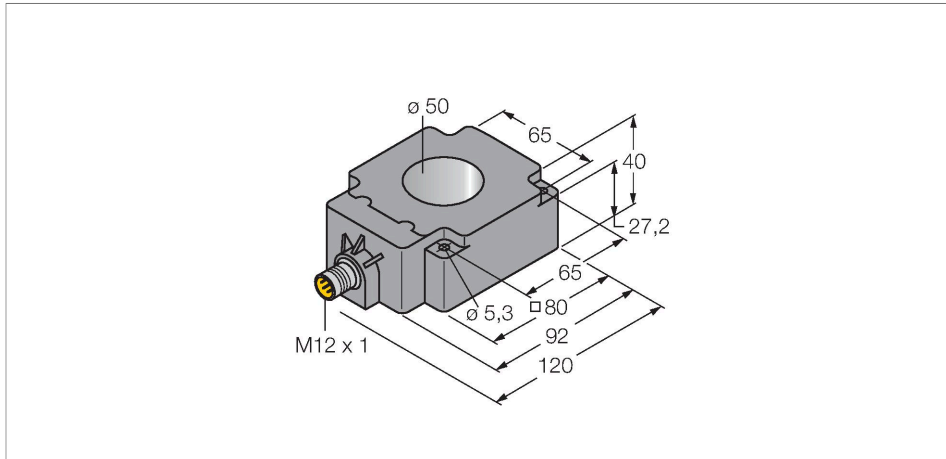


BI50R-Q80-2LU-H1141/S950

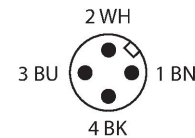
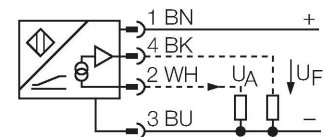
Inductive Sensor – For Material Recognition



Features

- Rectangular, height 40 mm
- 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	BI50R-Q80-2LU-H1141/S950
Ident. no.	1534609
Special version	S950 corresponds to: 1x analog amplitude output, 1x analog phase output
Inside ring diameter D	50 mm
Measuring range [A...B]	depending on the length of the cone
Secured operating distance	$\leq (0.81 \times S_n)$ mm
Temperature drift	0.5 %, after warm-up 0.5 h
Ambient temperature	$\leq \pm 0.06$ % / K
Operating voltage	-25...+70 °C
Residual ripple	15...30 VDC
No-load current	≤ 10 % U_{s}
Isolation test voltage	≤ 8 mA
Short-circuit protection	≤ 0.5 kV
Wire breakage/Reverse polarity protection	yes
Output function	no / Complete
Voltage output	4-wire, Analog output
Voltage output (phase)	0...10 V
Load resistance voltage output	$\geq 1... \leq 10$ VDC
Measuring sequence frequency	≥ 4.7 k Ω
Design	80 Hz
Dimensions	Ring sensor, Q80
Housing material	92 x 80 x 40 mm
	Plastic, PBT-GF30-V0

Functional principle

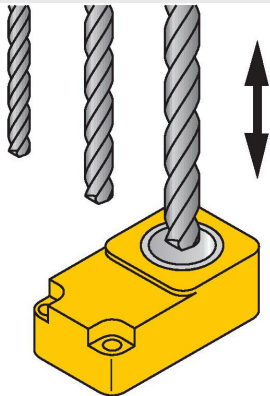
Many applications require a fast detection of material qualities. For example, the sorting of beverage cans made of aluminium or tin, or the differentiation of pipes made of different metals. Turck has developed an analog inductive sensor for this purpose that not only processes the amplitude signal 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
Coil body	plastic, POM
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

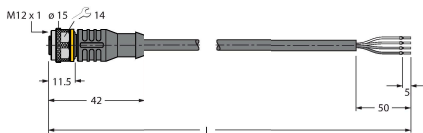
Mounting instructions

Mounting instructions/Description



Wiring accessories

Dimension drawing	Type	Ident. no.	
	RKC4.4T-2/TEL	6625013	



Connection cable, female M12, straight, 4-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see www.turck.com