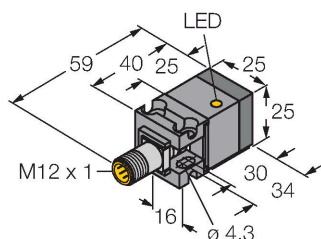


BI10U-CA25-AP6X2-H1141

Inductive Sensor



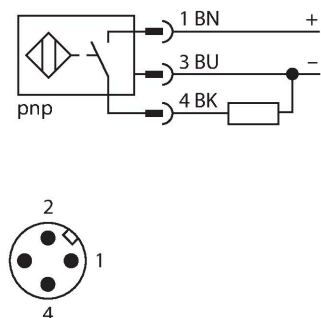
Features

- Rectangular, height 25 mm
- Sensor housing, GD-CuZn 12
- Duroplast front cap, very resistant to thermal and mechanical load
- Relocatable connector, 4 positions
- Variable orientation of active face in 5 directions
- Factor 1 for all metals
- Resistant to magnetic fields
- Extended temperature range
- High switching frequency
- DC 3-wire, 10...30 VDC
- NO contact, PNP output
- M12 x 1 male connector

Technical data

Type	BI10U-CA25-AP6X2-H1141
ID	1625631
General data	
Rated switching distance	10 mm
Mounting conditions	Flush
Secured operating distance	$\leq (0.81 \times S_n)$ mm
Repeat accuracy	$\leq 2 \%$ of full scale
Temperature drift	$\leq \pm 10 \%$
	$\leq \pm 15 \%, -25^\circ\text{C} \leq +70^\circ\text{C}$
Hysteresis	3...15 %
Electrical data	
Operating voltage	10...30 VDC
Residual ripple	$\leq 10 \%$ U_{ss}
DC rated operational current	≤ 200 mA
No-load current	15 mA
Residual current	≤ 0.1 mA
Isolation test voltage	≤ 0.5 kV
Short-circuit protection	yes / Cyclic
Voltage drop at I_o	≤ 1.8 V
Wire breakage/Reverse polarity protection	yes / Complete
Output function	3-wire, NO contact, PNP
DC field stability	300 mT
AC field stability	300 mT _{ss}
Insulation class	□
Switching frequency	0.25 kHz

Wiring diagram



Functional principle

Inductive sensors are designed for wear-free and contactless detection of metal objects. Approx Factor 1 sensors have significant advantages due to their patented ferrite-coreless multi-coil system. They detect all metals at the same large switching distance and are resistant to magnetic fields.

Technical data

Mechanical data	
Design	Rectangular, CA25
Dimensions	40 x 25 x 25 mm
	variable orientation of active face in 5 directions
Housing material	Metal, GD-CuZn 12
Active area material	Plastic, Duroplast, black
Electrical connection	Connector, M12 × 1
Environmental conditions	
Ambient temperature	-30...+85 °C
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP67
MTTF	874 years acc. to SN 29500 (Ed. 99) 40 °C
Power-on indication	LED, Green
Switching state	LED, Yellow

Mounting instructions

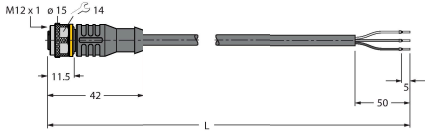
Mounting instructions/Description



The figure consists of two isometric views of the CA25 sensor. The left view shows the sensor mounted on a surface, with dimensions D (distance between sensors), W (width of the sensor), S (distance from the sensor to the edge), and B (width of the active area) indicated. The right view shows the sensor in a different orientation, with dimensions G (distance between sensors) and B (width of the active area) indicated.

Distance D	2 x B
Distance W	3 x Sn
Distance S	1 x B
Distance G	6 x Sn
Width active area B	25 mm

Accessories

Dimension drawing	Type	ID	
	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 www.turck.com