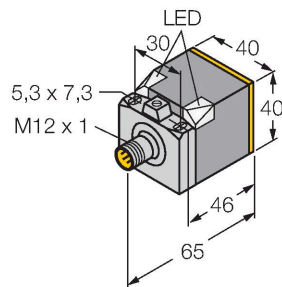


BI15U-CK40-AP6X2-H1141

Inductive Sensor



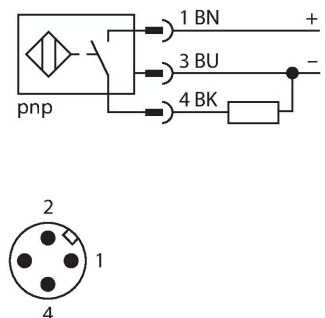
Features

- Rectangular, height 40 mm
- Variable orientation of active face in 5 directions
- Plastic, PBT-GF30-V0
- High luminance corner LEDs
- Optimum view on supply voltage and switching state from any position
- Factor 1 for all metals
- Protection class IP68
- 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	BI15U-CK40-AP6X2-H1141
ID	1625600
General data	
Rated switching distance	15 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_a	≤ 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, CK40
Dimensions	65 x 40 x 40 mm
	variable orientation of active face in 5 directions
Housing material	Plastic, PBT-GF20-V0, Black
Active area material	Plastic, PA12-GF30, yellow
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	IP68
MTTF	874 years acc. to SN 29500 (Ed. 99) 40 °C
Power-on indication	2 × LEDs, Green
Switching state	2 × LEDs, Yellow
Included in delivery	BS1-CK40

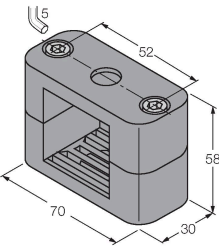
Mounting instructions

Mounting instructions/Description

The figure consists of two 3D perspective diagrams illustrating the mounting of a sensor. The left diagram shows the sensor mounted on a wall. The sensor is represented by a yellow cube with a circular logo. The wall is a grey rectangular block. The distance from the wall to the sensor is labeled 'D'. The width of the sensor is labeled 'W'. The distance from the top of the sensor to the top of the wall is labeled 'S'. The right diagram shows the sensor with dimensions 'G' (width) and 'B' (height). The sensor is represented by a yellow cube with a circular logo. The dimensions 'G' and 'B' are indicated by arrows.

Distance D	80 mm
Distance W	45 mm
Distance S	40 mm
Distance G	90 mm
Width active area B	40 mm

Accessories

BSS-CP40	6901318
	
Mounting clamp for rectangular housings 40 x 40 mm; material: Polypropylene	

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

