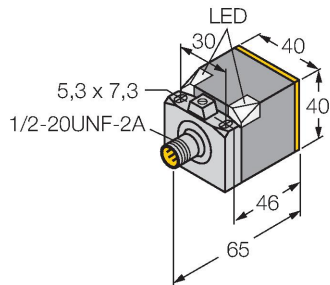


NI25U-CK40-ADZ30X2-B3131

Inductive Sensor



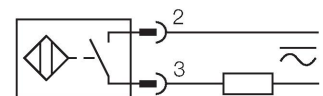
Technical data

Type	NI25U-CK40-ADZ30X2-B3131
ID	4280230
General data	
Rated switching distance	25 mm
Mounting conditions	Non-flush
Secured operating distance	$\leq (0.81 \times S_n)$ mm
Repeat accuracy	$\leq 2 \%$ of full scale
Temperature drift	$\leq \pm 10 \%$ $\leq \pm 15 \%, \leq -25^\circ\text{C} \vee \geq +70^\circ\text{C}$
Hysteresis	3...15 %
Electrical data	
Operating voltage U_B	20...250 VAC
Operating voltage U_B	10...300 VDC
AC rated operational current	≤ 400 mA
DC rated operating current I_o	≤ 300 mA
Frequency	$\geq 50 \dots \leq 60$ Hz
Residual current	≤ 1.7 mA
Isolation test voltage	1.5 kV
Surge current	≤ 3 A (≤ 20 ms max. 5 Hz)
Short-circuit protection	yes/Latching
Voltage drop at I_o	≤ 6 V
Wire break/reverse polarity protection	yes/Complete
Output function	2-wire, NO contact, 2-wire
DC field stability	300 mT
AC field stability	300 mT _{SS}
Smallest operating current	≥ 3 mA
Switching frequency	0.01 kHz

Features

- Rectangular, height 40 mm
- Variable orientation of active face in 5 directions
- Plastic, PBT-GF30-V0
- Factor 1 for all metals
- Protection class IP68
- Resistant to magnetic fields
- Extended temperature range
- High switching frequency
- AC 2-wire, 20...250 VAC
- DC 2-wire, 10...300 VDC
- NO contact
- 1/2" male connector

Wiring diagram

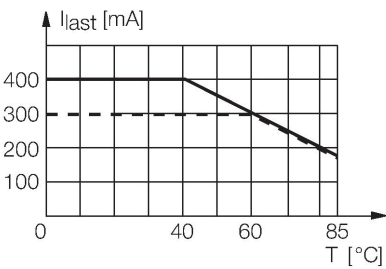


Functional principle

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, 1/2"
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 image contains two isometric diagrams illustrating the mounting of the BS1-CK40 sensor. The top diagram shows the sensor (a yellow cube with a circular target) mounted on a raised surface. Dimensions are indicated: 'N' is the height of the mounting surface, 'D' is the distance between the sensor and the next mounting point, 'W' is the width of the mounting surface, and 'S' is the distance from the sensor to the edge of the mounting surface. The bottom diagram shows the sensor mounted in a recessed area. Dimensions are indicated: 'G' is the distance from the sensor to the edge of the mounting surface, and 'B' is the width of the mounting surface.

Distance D	3 x B
Distance W	3 x Sn
Distance S	1.5 x B
Distance G	6 x Sn
Distance N	1 x B
Width active area	40 mm
B	

Accessories

BSS-CP40

6901318

Mounting clamp for rectangular housings 40 x 40 mm; material: Polypropylene

