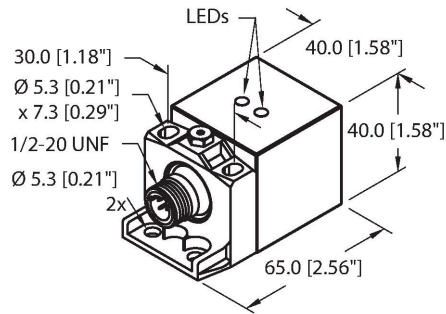


BI20U-CA40-ADZ30X2-B3131/S1590 W/BS2.1 Inductive Sensor – With WeldGuard™ Coating



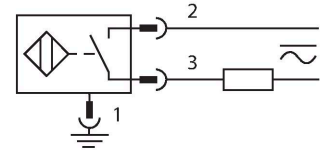
Features

- Rectangular, height 40 mm
- Variable orientation of active face in 5 directions
- Sensor housing GD-ALSI 12
- Active face PA6-GF30
- Factor 1 for all metals
- Protection class IP67
- Resistant to magnetic fields
- AC 2-wire, 20...250 VAC
- DC 2-wire, 10...300 VDC
- NO contact
- 1/2" male connector

Technical data

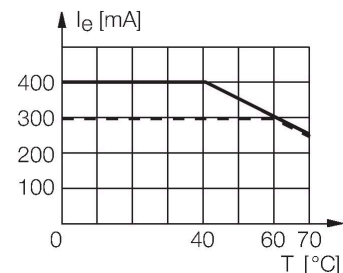
Type	BI20U-CA40-ADZ30X2-B3131/S1590 W/BS2.1
ID	4283296
Special version	S1590 Corresponds to:WeldGuard™ coating
General data	
Rated switching distance	20 mm
Mounting conditions	Flush
Secured operating distance	$\leq (0.81 \times S_n)$ mm
Repeat accuracy	$\leq 2 \%$ of full scale
Hysteresis	3...15 %
Electrical 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

Wiring diagram



Functional principle

Inductive sensors detect metal objects contactless and wear-free. For this purpose they use a high-frequency electromagnetic AC field that interacts with the target. The sensors hosting a ferrite core coil generate the AC field through an LC resonant circuit. Turck WeldGuard sensors are equipped with a thin coating made of thermosetting plastic. This high-tech coating is resistant to abrasion and withstands mechanical stress, as occurring for example in welding systems.



Technical data

AC field stability	300 mT _{ss}
Smallest operating current	≥ 3 mA
Insulation class	□
Switching frequency	0.01 kHz
Mechanical data	
Design	Rectangular, CA40
Dimensions	65 x 40 x 40 mm
	variable orientation of active face in 5 directions
Housing material	Metal, GD-AISi 12
Active area material	Plastic, PA6-GF30, black
Electrical connection	Connector, 1/2"
Environmental conditions	
Ambient temperature	0...+70 °C
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP67
Power-on indication	LED, Green
Switching state	LED, Yellow
Included in delivery	BS2.1-CK40

Mounting instructions

Mounting instructions/Description

Distance D	$2 \times B$
Distance W	$3 \times S_n$
Distance S	$1 \times B$
Distance G	$6 \times S_n$
Width active area B	40 mm

Accessories

BSS-CP40

6901318

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

