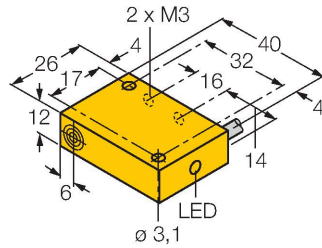


# BI2-Q12-RZ31X

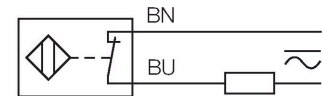
## Inductive Sensor



### Features

- Rectangular, height 12mm
- Active face, lateral
- Plastic, PA12-GF30
- AC 2-wire, 35...250 VDC
- DC 2-wire, 10...300 VDC
- NC contact
- Cable connection

### Wiring diagram



### Technical data

Type	BI2-Q12-RZ31X
Ident. no.	13200
Rated switching distance	2 mm
Mounting conditions	Flush
Secured operating distance	$\leq (0.81 \times S_n)$ mm
Correction factors	St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4
Repeat accuracy	$\leq 2$ % of full scale
Temperature drift	$\leq \pm 10$ %
Hysteresis	3...15 %
Ambient temperature	-25...+70 °C
Operating voltage	35...250 VAC
Operating voltage	10...300 VDC
AC rated operational current	$\leq 100$ mA
DC rated operational current	$\leq 100$ mA
Frequency	$\geq 50 \dots \leq 60$ Hz
Residual current	$\leq 1.7$ mA
Isolation test voltage	$\leq 1.5$ kV
Surge current	$\leq 1$ A ( $\leq 10$ ms max. 5 Hz)
Voltage drop at $I_o$	$\leq 6$ V
Output function	2-wire, NC contact
Smallest operating current	$\geq 3$ mA
Switching frequency	0.02 kHz

### Functional principle

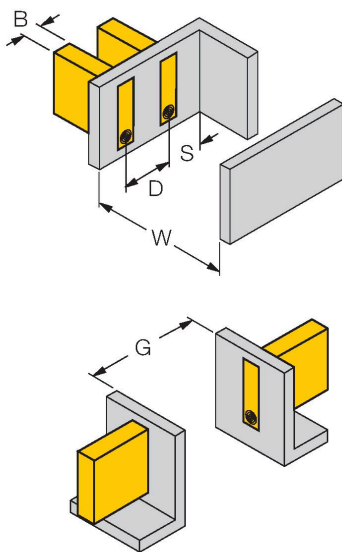
Inductive sensors detect metal objects contactless and wear-free. For this, they use a high-frequency electromagnetic AC field that interacts with the target. Inductive sensors generate this field via an RLC circuit with a ferrite coil.

## Technical data

Design	Rectangular, Q12
Dimensions	40 x 26 x 12 mm
Housing material	Plastic, PA12-GF30
Active area material	PA12-GF30
Electrical connection	Cable
Cable quality	Ø 5.2 mm, LifYY, PVC, 2 m
Core cross-section	2 x 0.34 mm <sup>2</sup>
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP67
MTTF	2283 years acc. to SN 29500 (Ed. 99) 40 °C
Switching state	LED, Red

## Mounting instructions

### Mounting instructions/Description



Distance D	2 x B
Distance W	3 x Sn
Distance S	1 x B
Distance G	6 x Sn
Width active area B	12 mm