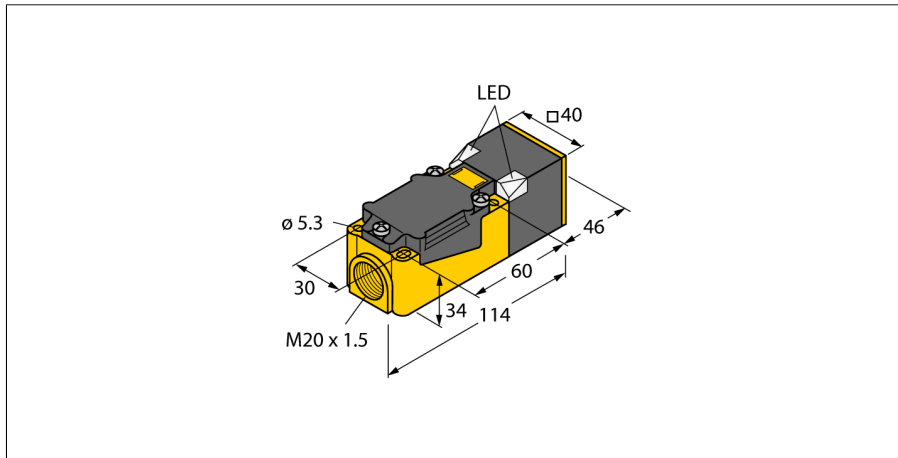


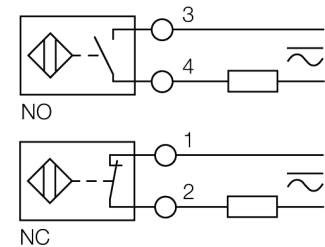
Inductive sensor
With extended temperature range
BI15-CP40-FZ3X2/S100



- Rectangular, height 40 mm
- Variable orientation of active face in 9 directions
- Plastic, PBT-GF30-V0
- High luminance corner LEDs
- Optimum view on supply voltage and switching state from any position
- Temperatures up to +100 °C
- AC 2-wire, 20...250 VDC
- DC 2-wire, 10...300 VDC
- NC/NO programmable
- Terminal chamber

Type designation	BI15-CP40-FZ3X2/S100
Ident no.	13440
Rated switching distance S_n	15 mm
Mounting conditions	flush
Assured switching distance	$\leq (0,81 \times S_n)$ mm
Correction factors	St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4
Repeatability	$\leq 2\%$ of full scale
Temperature drift	$\leq \pm 10\%$
Hysteresis	3...15 %
Ambient temperature	-25...+100 °C
Operating voltage	20...250 VAC
Operating voltage	10... 300VDC
AC rated operational current	≤ 400 mA
DC rated operational current	≤ 300 mA
Rated operational current	see derating curve
Frequency	$\geq 50... \leq 60$ Hz
Residual current	≤ 1.7 mA
Rated insulation voltage	≤ 1.5 kV
Surge current	≤ 8 A (≤ 10 ms max. 5 Hz)
Voltage drop at I_e	≤ 6 V
Output function	2-wire, connection programmable
Smallest operating current I_m	≥ 3 mA
Switching frequency	0.02 kHz
Construction	rectangular, CP40
Dimensions	114 x 40 x 40 mm
Housing material	Plastic, PBT-GF30-V0, black
Electrical connection	terminal chamber
Clamping ability	≤ 2.5 mm ²
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
Power-on indication	LED green
Switching state	LED red

Wiring Diagram

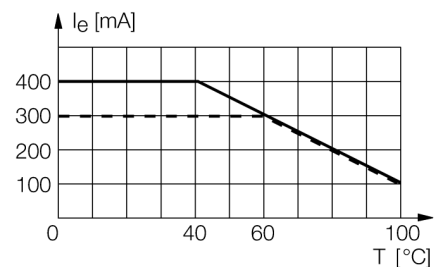


Functional principle

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.

Special versions are available for ambient temperatures between -60°C and +250°C.

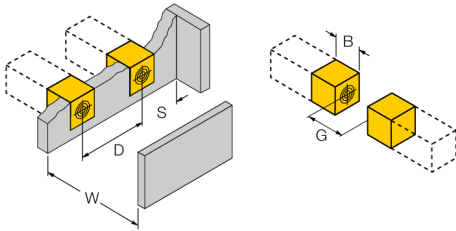
Derating Curve



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Distance D	2 x B
Distance W	3 x Sn
Distance S	1 x B
Distance G	6 x Sn

Width of the active face B 40 mm



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Accessories

Type code	Ident no.	Description	
STRM M20X1,5 BLACK	6965902	Cable glands M20 x 1.5	
Adjusting bar JS 025/037	69429	Adjusting bar for rectangular housings CK/CP40; material: VA 1.4301	
BSS-CP40	6901318	Mounting bracket for rectangular devices; material: Polypropylene	