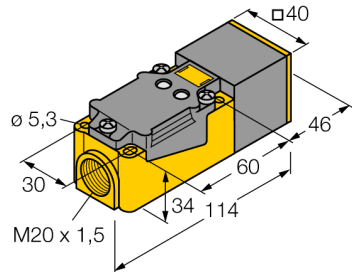


Inductive sensor Ni35-CP40-FDZ30X2

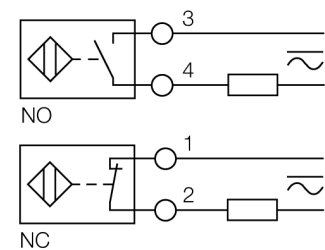
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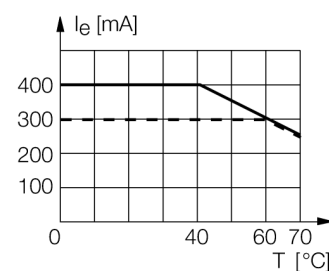
- Rectangular, height 40 mm
- Variable orientation of active face in 9 directions
- Plastic, PBT-GF30-V0
- High luminance corner LEDs
- Optimum view on supply voltage and switching state from any position
- AC 2-wire, 20...250 VDC
- DC 2-wire, 10...300 VDC
- NC/NO programmable
- Terminal chamber

Wiring diagram



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.



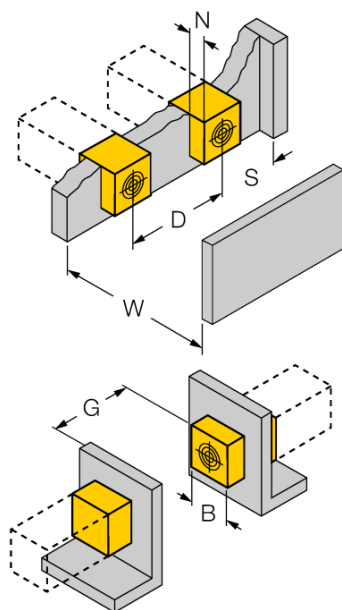
Type code	Ni35-CP40-FDZ30X2
Ident no.	42235
Rated switching distance Sn	35 mm
Mounting conditions	non-flush
Assured switching distance	$\leq (0,81 \times S_n) \text{ mm}$
Correction factors	St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4
Repeatability	$\leq 2 \%$ of full scale
Temperature drift	$\leq \pm 10 \%$
Hysteresis	3...15 %
Ambient temperature	-25...+70 °C
Operating voltage	20...250 VAC
Operating voltage	10...300VDC
AC rated operational current	$\leq 400 \text{ mA}$
DC rated operational current	$\leq 300 \text{ mA}$
Frequency	$\geq 50... \leq 60 \text{ Hz}$
Residual current	$\leq 1.7 \text{ mA}$
Rated insulation voltage	$\leq 1.5 \text{ kV}$
Surge current	$\leq 3 \text{ A}$ ($\leq 20 \text{ ms max. } 5 \text{ Hz}$)
Short-circuit protection	yes/ latching
Voltage drop at I_e	$\leq 6 \text{ V}$
Wire breakage / Reverse polarity protection	yes/ complete
Output function	2-wire, connection programmable
Smallest operating current I_m	$\geq 3 \text{ mA}$
Switching frequency	0.02 kHz
Construction	rectangular, CP40
Dimensions	114 x 40 x 40 mm
Housing material	plastic, PBT, black
Connection	Terminal chamber
Clamping ability	$\leq 2.5 \text{ mm}^2$
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
IP Rating	IP67
MTTF	2283 years acc. to SN 29500 (Ed. 99) 40 °C
Power-on indication	2 LEDs green
Switching state	LED red

Inductive sensor Ni35-CP40-FDZ30X2

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Distance D	$4.5 \times B$
Distance W	$3 \times S_n$
Distance S	$1.5 \times B$
Distance G	$6 \times S_n$
Distance N	$1 \times B$

Width of the active face B	40 mm
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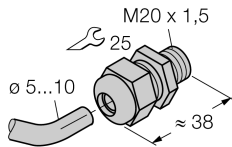
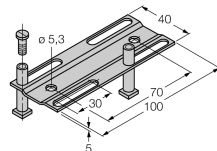


Inductive sensor Ni35-CP40-FDZ30X2

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Accessories

Type code	Ident no.	Description	Design
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	