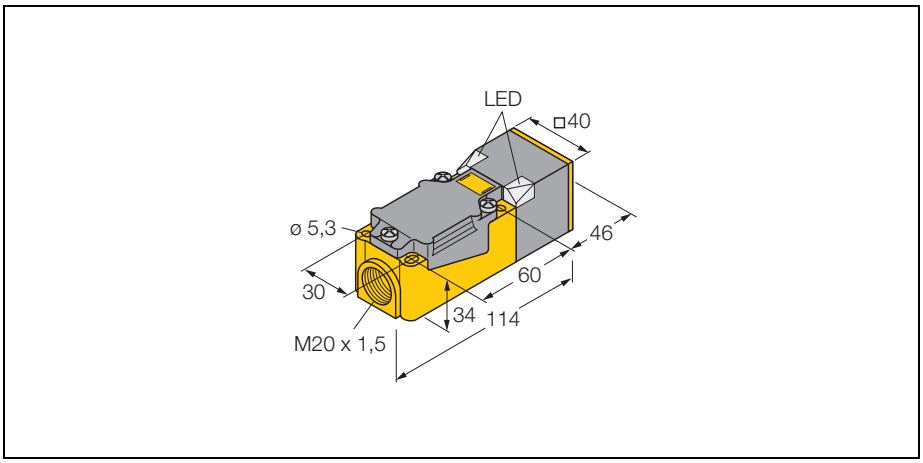
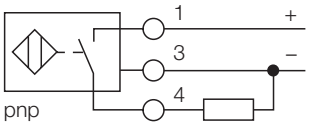
Inductive sensor
Ni50U-CP40-AP6X2



Type	Ni50U-CP40-AP6X2
Ident-No.	1625831
Rated operating distance Sn	50 mm
Mounting condition	non-flush, flush mounting possible
Assured sensing range	≤ (0,81 x Sn) mm
Repeatability	≤ 2 %
Temperature drift	≤ ± 10 %
	≤ ± 20 %, ≤ -25 °C v ≥ +70 °C
Hysteresis	3… 15 %
Ambient temperature	-30…+ 85 °C
Operating voltage	10… 30VDC
Residual ripple	≤ 10 % U_{ss}
DC rated operational current	≤ 200 mA
No-load current I_0	≤ 15 mA
Residual current	≤ 0.1 mA
Rated insulation voltage	≤ 0.5 kV
Short-circuit protection	yes / cyclic
Voltage drop at I_e	≤ 1.8V
Wire breakage / Reverse polarity protection	yes / complete
Output function	3-wire, normally open, pnp
Insulation class	⧈
Switching frequency	≤ 0.25 kHz
Housing	rectangular, CP40
Dimensions	114 x 40 x 40 mm
	variable orientation of active face in 9 directions
Housing material	plastic, PBT-GF30-V0, black
Material active face	plastic, PA6-GF30-X, yellow
Connection	Terminal chamber
Clamping ability	≤ 2.5mm^2
Vibration resistance	55 Hz (1 mm)
Shock resistance	30g (11 ms)
Degree of protection	IP68
Operating voltage display	2 x LEDs green
Display switch state	2 x LED yellow

- **quaderförmig, Höhe 40 mm**
- **aktive Fläche in 9 Richtungen positionierbar**
- **Kunststoff, PBT-GF30-V0**
- **Eck-LEDs mit hoher Leuchtkraft**
- **optimale Sicht auf Betriebsspannungsanzeige und Schaltzustandsanzeige in jeder Einbausituation**
- **factor 1 for all metals**
- **extended switching distance**
- **degree of protection IP68**
- **magnetic field immune**
- **predamping protection through self-compensation**
- **partial embedding possible**
- **3-wire DC, 10…30 VDC**
- **normally open, pnp output**
- **Terminal chamber**

Wiring diagram



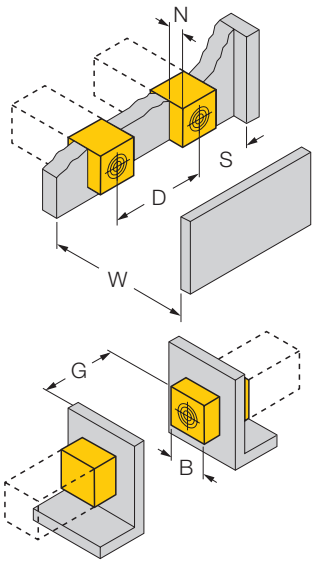
Functional principle

Inductive sensors are designed for wear-free and non-contact detection of metal objects. uprox+ sensors have considerable advantages due to their patented multi-coil system. They excel in highest switching distances, maximum flexibility and operational reliability as well as efficient standardisation.

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Inductive sensor
Ni50U-CP40-AP6X2

Mounting instructions	minimum distances
Distance D	240 mm
Distance W	105 mm
Distance S	60 mm
Distance G	300 mm
Distance N	30 mm
Width of the active face B	40 mm



up to 4-side flush mounting possible
1-side flush mounting: Sr = 35 mm; D = 240 mm
2-side flush mounting: Sr = 25 mm; D = 240 mm
3-side flush mounting: Sr = 20 mm; D = 80 mm
4-side flush mounting: Sr = 17 mm; D = 60 mm

back-mounting as well as recessed mounting with switching distance reduction possible

recessed sensor mounting in metal:
x = 10 mm: Sr = 20 mm
x = 20 mm: Sr = 20 mm
x = 30 mm: Sr = 20 mm
x = 40 mm: Sr = 20 mm

protruded sensor mounting on metal:
x = 10 mm: Sr = 40 mm
x = 20 mm: Sr = 50 mm
x = 30 mm: Sr = 50 mm
x = 40 mm: Sr = 50 mm

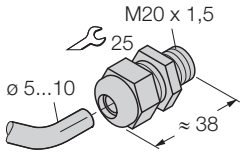
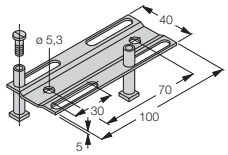
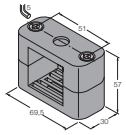
mounting in aperture plate:
T = 150 mm:
sensor with rotated turning angle
based on metal Sr = 50 mm
based on metal and one-side embedding Sr = 25 mm
based on metal and two-side embedding Sr = 15 mm
based on metal and three-side embedding Sr = 12 mm

The values stated relate to 1 mm thick steel plate.

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Inductive sensor
Ni50U-CP40-AP6X2

Accessories

Type code	Ident-No.	Short text	Dimension drawing
STRM M20X1,5 SCHWARZ	6965902	cable glands M20 x 1,5	
JS 025/037	69429	mounting rail; material: VA 1.4301	
BSS-CP40	6901318	fixing clamp; material: polypropylene	

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