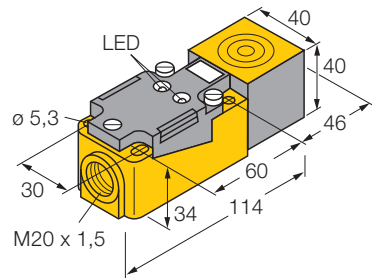
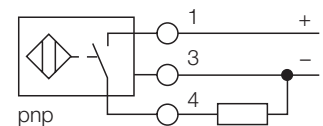


Inductive sensor extended switching distance Ni50U-CP40-AP6X2



- rectangular, height 40 mm
- plastic, PBT-GF30-V0
- factor 1 for all metals
- extended switching distance
- degree of protection IP68
- magnetic field immune
- extended temperature range
- high switching frequency
- predamping protection through self-compensation
- 3-wire DC, 10...30 VDC
- normally open pnp output
- terminal chamber

Wiring diagram



Function principles

Inductive proximity switches are designed for wear-free non-contact detection of metal objects. Due to a ferrite-less 3-coil system, Uprox factor 1 sensor have distinct advantages. The detect all metals at the same switching distance, are magnetic field immune and feature large switching distances.

Type	Ni50U-CP40-AP6X2
Ident-No.	1625831
Rated operating distance S_n	50 mm
Mounting mode	non-flush, partial flush mountable
Hysteresis (switching distance)	3... 15 %
Min. repeat accuracy	$\leq 2 \%$
Temperature drift	$\leq \pm 10 \%$
Operating temperature	$\leq \pm 15 \%$, $\leq -25 \text{ }^\circ\text{C}$ v $\geq +70 \text{ }^\circ\text{C}$ -30 ...+ 85 $^\circ\text{C}$
Rated operational voltage (DC) U_B	10... 30 VDC
Max. ripple	$\leq 10 \%$ U_{pp}
Rated operational current (DC) I_e	$\leq 200 \text{ mA}$
No-load current I_0	$\leq 15 \text{ mA}$
Max. OFF-state current	$\leq 0,1 \text{ mA}$
Max. switching frequency	$\leq 0,25 \text{ kHz}$
Rated insulation voltage	$\leq 0,5 \text{ kV}$
Output function	3-wire, normally open, PNP
Short-circuit protection	yes, cyclic
Max. voltage drop at I_e	$\leq 1,8 \text{ V}$
Wire breakage / reverse polarity protection	yes / complete
Protection class	□
Housing style	rectangular; CP40
Dimensions	114 x 40 x 40 mm
Housing material	plastic, PBT-GF30-V0
Active face	plastic, PBT-GF30-V0
Wiring	terminal chamber
Clamping ability	$\leq 2,5 \text{ mm}^2$
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 x g (11 ms)
Degree of protection	IP68
Supply voltage indication	LED green
Switching status indication	LED yellow

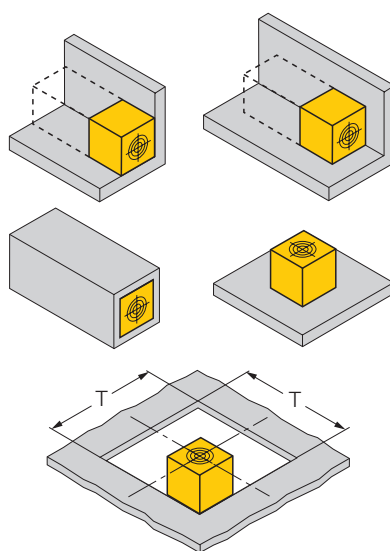
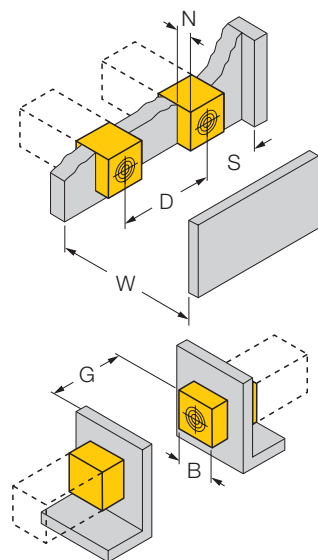
**Inductive sensor
extended switching distance
Ni50U-CP40-AP6X2**

Mounting instructions

Gap D	minimum gap 3 x B
Gap W	3 x Sn
Gap T	150 mm
Gap S	0,5 x B
Gap G	6 x Sn
Gap N	1 x B

Width of active face B

40 mm



4-side flush mounting possible

1-side flush mounting: $S_r = 35 \text{ mm}$

2-side flush mounting: $S_r = 25 \text{ mm}$

3-side flush mounting: $S_r = 20 \text{ mm}$

4-side flush mounting: $S_r = 17 \text{ mm}$

back-mounting without having to reduce
the switching distance

protruded mounting with switching di-
stance reduction possible

**Inductive sensor
extended switching distance
Ni50U-CP40-AP6X2**

Accessories

Typ	Ident-No.	Description	Dimension drawing
SG40	69500	protective housing; housing material: PA (per UL94/V-2); cover: PBT-GF30; for harsh environments; protection degree IP68, 5 m w.g.	
JS 025/037	69429	mounting rail; material: VA 1.4301	