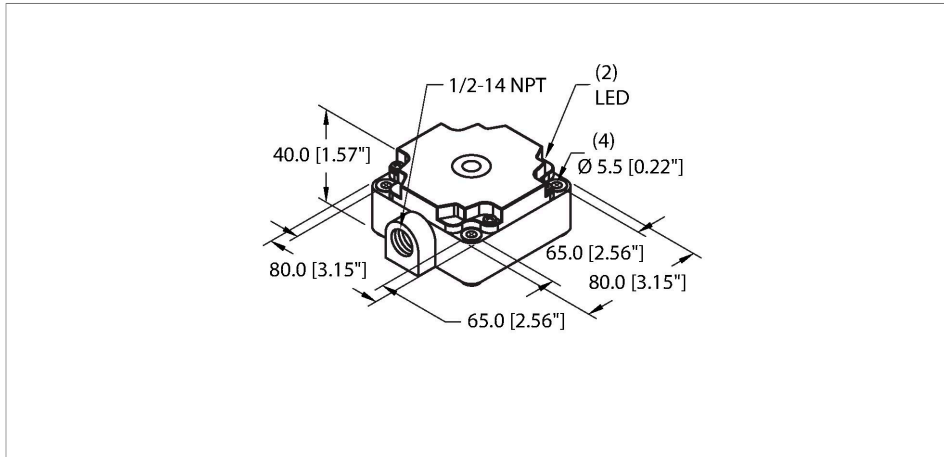


# NI75U-CP80-FDZ30X2/S10

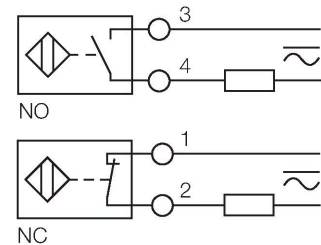
## Inductive Sensor – With Increased Switching Distance



### Features

- Rectangular, height 41 mm
- Plastic, PBT-GF30-V0
- Factor 1 for all metals
- Resistant to magnetic fields
- Large coverage
- Extended temperature range
- High switching frequency
- AC 2-wire, 20...250 VAC
- DC 2-wire, 10...300 VDC
- NC/NO programmable
- Terminal chamber

### Wiring diagram

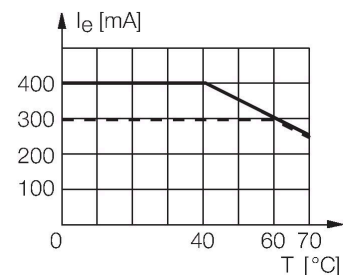


### Technical data

Type	NI75U-CP80-FDZ30X2/S10
ID	4280901
Special version	S10 corresponds to: Mounting base with 1/2-14NPT thread
<b>General data</b>	
Rated switching distance	75 mm
Mounting conditions	Non-flush
Secured operating distance	$\leq (0.81 \times S_n)$ mm
Repeat accuracy	$\leq 2\%$ of full scale
Temperature drift	$\leq \pm 10\%$ $\leq \pm 15\%$ , $\leq -25\text{ °C}$ v $\geq +70\text{ °C}$
Hysteresis	3...15 %
<b>Electrical data</b>	
Operating voltage	20...250 VAC
Operating voltage	10...300 VDC
AC rated operational current	$\leq 400\text{ mA}$
DC rated operational current	$\leq 300\text{ mA}$
Frequency	$\geq 50\text{...}\leq 60\text{ Hz}$
Residual current	$\leq 1.7\text{ mA}$
Isolation test voltage	$\leq 1.5\text{ kV}$
Surge current	$\leq 3\text{ A}$ ( $\leq 20\text{ ms max. 5 Hz}$ )
Short-circuit protection	yes / Latching
Voltage drop at $I_e$	$\leq 6\text{ V}$
Wire breakage/Reverse polarity protection	yes / Complete

### Functional principle

Inductive sensors are designed for wear-free and contactless detection of metal objects. Approx Factor 1 sensors have significant advantages due to their patented ferrite-coreless multi-coil system. They detect all metals at the same large switching distance and are resistant to magnetic fields.

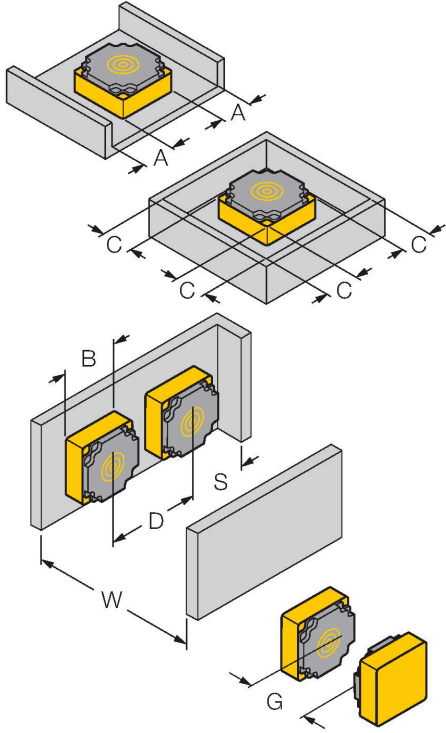


## Technical data

Output function	2-wire, Connection programmable, 2-wire
DC field stability	300 mT
AC field stability	300 mT <sub>ss</sub>
Smallest operating current	≥ 3 mA
Insulation class	□
Switching frequency	0.01 kHz
<b>Mechanical data</b>	
Design	Rectangular, CP80
Dimensions	80 x 80 x 41 mm
Housing material	Plastic, PBT-GF30-V0
Active area material	PBT-GF30-V0
Electrical connection	Terminal chamber
Clamping ability	≤ 2.5 mm <sup>2</sup>
<b>Environmental conditions</b>	
Ambient temperature	-30...+85 °C
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP67
MTTF	874 years acc. to SN 29500 (Ed. 99) 40 °C
Power-on indication	LED, Green
Switching state	LED, Yellow

## Mounting instructions

### Mounting instructions/Description



Distance D	4 x B
Distance W	3 x Sn
Distance S	1.5 x B
Distance G	6 x Sn
Distance A	1 x B
Distance C	1 x B
Width active area B	80 mm