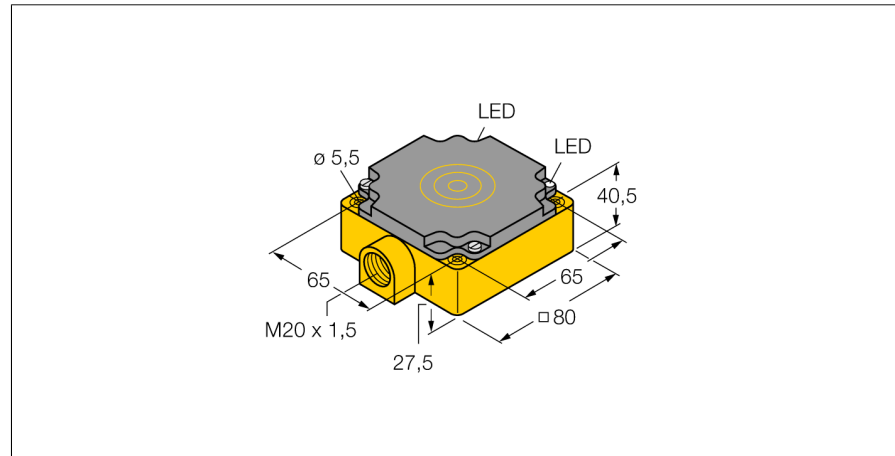
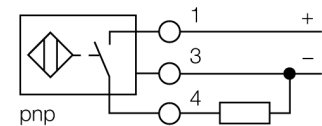


**Inductive sensor**  
**With extended temperature range**  
**NI75U-CP80-AP6X2/S97**



- Rectangular, height 41 mm
- Plastic, PBT-GF30-V0
- Factor 1 for all metals
- Resistant to magnetic fields
- Extended temperature range
- High switching frequency
- Auto-compensation protects against pre-attenuation
- DC 3-wire, 10...30 VDC
- NO contact, PNP output
- Terminal chamber

**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.

<b>Type code</b>	NI75U-CP80-AP6X2/S97
Ident no.	1623806
<b>Rated switching distance S<sub>n</sub></b>	75 mm
Mounting conditions	non-flush
Assured switching distance	≤ (0,81 x S <sub>n</sub> ) mm
Repeatability	≤ 2 % of full scale
Temperature drift	≤ ± 10 %
Hysteresis	≤ ± 20 %, ≤ -25 °C
Ambient temperature	3...15 %
	-40...+70 °C
<b>Operating voltage</b>	10...30VDC
Residual ripple	≤ 10 % U <sub>s</sub>
DC rated operational current	≤ 200 mA
No-load current I <sub>0</sub>	≤ 15 mA
Residual current	≤ 0.1 mA
Rated insulation voltage	≤ 0.5 kV
Short-circuit protection	yes/ cyclic
Voltage drop at I <sub>0</sub>	≤ 1.8 V
Wire breakage / Reverse polarity protection	yes/ complete
Output function	3-wire, NO contact, PNP
Protective insulation	☐
Switching frequency	0.25 kHz
<b>Construction</b>	rectangular, CP80
Dimensions	80 x 80 x 41 mm
Housing material	plastic, PBT
Connection	Terminal chamber
Clamping ability	≤ 2.5 mm <sup>2</sup>
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
IP Rating	IP67
MTTF	874 years acc. to SN 29500 (Ed. 99) 40 °C
<b>Power-on indication</b>	LED green
Switching state	LED yellow

**Inductive sensor  
With extended temperature range  
NI75U-CP80-AP6X2/S97**

Distance W	3 x Sn
Distance T	4 x Sn
Distance S	1.5 x B
Distance G	6 x Sn
Distance A	1 x B
Distance C	1 x B
<hr/>	
Width of the active face B	80 mm

