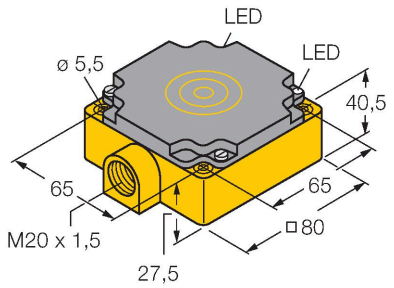
NI75U-CP80-FDZ30X2
Inductive Sensor – With Increased Switching Distance



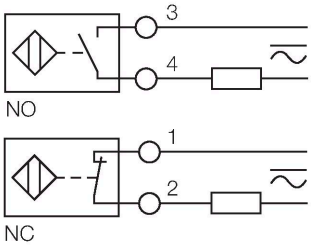
Features

- 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

Technical data

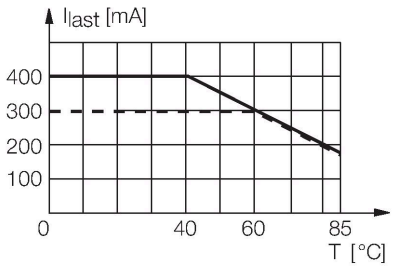
Type	NI75U-CP80-FDZ30X2
ID	4280900
General data	
Rated switching distance	75 mm
Mounting conditions	Non-flush
Secured operating distance	≤ (0.81 × Sn) mm
Repeat accuracy	≤ 2 % of full scale
Temperature drift	≤ ±10 %
	≤ ± 15 %, ≤ -25 °C v ≥ +70 °C
Hysteresis	3…15 %
Electrical data	
Operating voltage U_B	20…250 VAC
Operating voltage U_B	10…300 VDC
AC rated operational current	≤ 400 mA
DC rated operating current I_e	≤ 300 mA
Frequency	≥ 50…≤ 60 Hz
Residual current	≤ 1.7 mA
Isolation test voltage	1.5 kV
Surge current	≤ 3 A (≤ 20 ms max. 5 Hz)
Short-circuit protection	yes/Latching
Voltage drop at I_e	≤ 6 V
Wire break/reverse polarity protection	yes/Complete
Output function	2-wire, Connection programmable, 2-wire
DC field stability	300 mT
AC field stability	300 mT_{ss}
Smallest operating current	≥ 3 mA
Insulation class	⧈

Wiring diagram



Functional principle

Inductive sensors are designed for wear-free and contactless detection of metal objects. uprox 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.

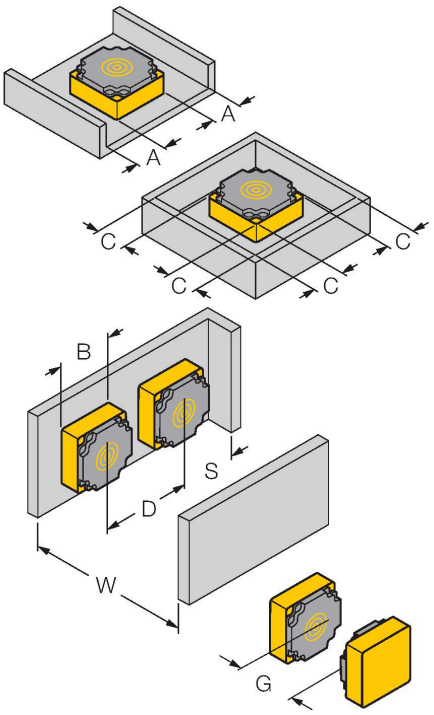


Technical data

Switching frequency	0.01 kHz
Mechanical data	
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 mm²
Environmental conditions	
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

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