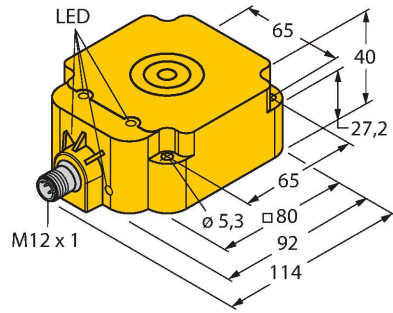


NI75U-Q80-VP4X2-H1141

Inductive Sensor – With Extended Switching Distance



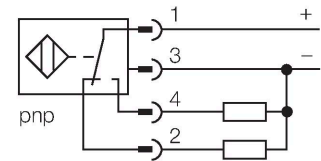
Features

- Rectangular, height 40 mm
- Active face on top
- Plastic, PBT-GF30-V0
- 4 LEDs for optimum view on supply voltage and switching state from any position
- Factor 1 for all metals
- Increased switching distance
- Protection class IP68
- Resistant to magnetic fields
- Auto-compensation protects against pre-damping
- Partially embeddable
- DC 4-wire, 10...65 VDC
- Changeover contact, PNP output
- M12 x 1 male connector

Technical data

Type	NI75U-Q80-VP4X2-H1141
ID	1625857
General data	
Rated switching distance	75 mm
Mounting conditions	Non-flush, partially embeddable
Repeat accuracy	≤ 2 % of full scale
Temperature drift	≤ ±10 %
Hysteresis	3...15 %
Electrical data	
Operating voltage U_B	10...65 VDC
Ripple U_{ss}	≤ 10 % U_{Bmax}
DC rated operating current I_B	≤ 200 mA
No-load current	≤ 15 mA
Residual current	≤ 0.1 mA
Isolation test voltage	0.5 kV
Short-circuit protection	yes/Cyclic
Voltage drop at I_B	≤ 1.8 V
Wire break/reverse polarity protection	yes/Complete
Output function	4-wire, Complementary contact, PNP
DC field stability	300 mT
AC field stability	300 mT _{ss}
Insulation class	□
Switching frequency	0.25 kHz

Wiring diagram



Functional principle

Inductive sensors are designed for wear-free and contactless detection of metal objects. uprox+ sensors have significant advantages due to their patented multi-coil system. They excel thanks to their optimum switching distances, maximum flexibility and operational reliability as well as efficient standardization.

Technical data

Mechanical data	
Design	Rectangular, Q80
Dimensions	92 x 80 x 40 mm
Housing material	Plastic, PBT-GF30-V0, Yellow
Active area material	PBT-GF30-V0, yellow
Tightening torque fixing screw	4 Nm
Electrical connection	Connector, M12 × 1
Environmental conditions	
Ambient temperature	-25...+70 °C
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP68
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 240 mm

Distance W 225 mm

Distance S 60 mm

Distance G 450 mm

Distance A 20 mm

Distance C 80 mm

Width active area B 80 mm

Mounting on metal: $S_r = 75\text{ mm}$

1-side mounting: $S_r = 50\text{ mm}$

2-side mounting: $S_r = 45\text{ mm}$

3-side mounting: $S_r = 40\text{ mm}$

4-side mounting: $S_r = 40\text{ mm}$

recessed mounting without metal baseplate: $S_r = 65\text{ mm}$

The values stated relate to a 1 mm thick steel plate.

Switching distances with different target sizes:

Sheet steel 150 x 150 mm: $S_n = 65\text{ mm}$

Sheet steel 60 x 60 mm: $S_n = 50\text{ mm}$

Sheet steel 40 x 40 mm: $S_n = 40\text{ mm}$

Sheet steel 120 x 40 mm: $S_n = 45\text{ mm}$ (simulation of a skid runner)

Wiring accessories

Dimension drawing	Type	ID	
M12 x 1 11.5 42 50 L	RKC4.4T-2/TEL	6625013	Connection cable, M12 female connector, straight, 4-pin, cable length: 2 m, jacket material: PVC, black; cULus approval

NI75U-Q80-VP4X2-H1141 | 02/21/2025 13-15 | technical changes reserved