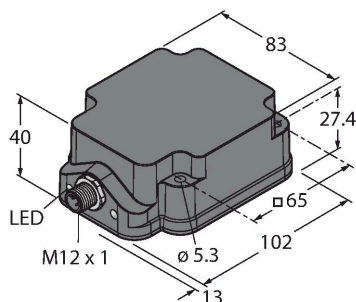


# NI75U-Q80WD-VP6X2-H1141

## Inductive Sensor – For Harsh Environments



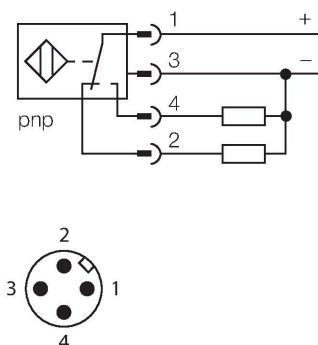
### Features

- Rectangular, height 40 mm
- Active face on top
- Plastic, PPS-GF30
- Factor 1 for all metals
- Resistant to magnetic fields
- High protection class IP69K for harsh environments
- Protection against all common acidic and alkaline cleaning agents
- Laser engraved label, permanently legible
- DC 4-wire, 10...30 VDC
- Changeover contact, PNP output
- M12 x 1 male connector

### Technical data

Type	NI75U-Q80WD-VP6X2-H1141
ID	1625920
<b>General data</b>	
Rated switching distance	75 mm
Mounting conditions	Non-flush, partially embeddable
Secured operating distance	$\leq (0.81 \times S_n)$ mm
Repeat accuracy	$\leq 2 \%$ of full scale
Temperature drift	$\leq \pm 10 \%$
Hysteresis	3...15 %
<b>Electrical data</b>	
Operating voltage	10...30 VDC
Residual ripple	$\leq 10 \%$ $U_{ss}$
DC rated operational current	$\leq 200$ mA
No-load current	15 mA
Residual current	$\leq 0.1$ mA
Isolation test voltage	$\leq 0.5$ kV
Short-circuit protection	yes / Cyclic
Voltage drop at $I_o$	$\leq 1.8$ V
Wire breakage/Reverse polarity protection	yes / Complete
Output function	4-wire, Complementary contact, PNP
DC field stability	300 mT
AC field stability	300 mT <sub>ss</sub>
Insulation class	□
Switching frequency	0.25 kHz
<b>Mechanical data</b>	
Design	Rectangular, Q80WD

### Wiring diagram



### Functional principle

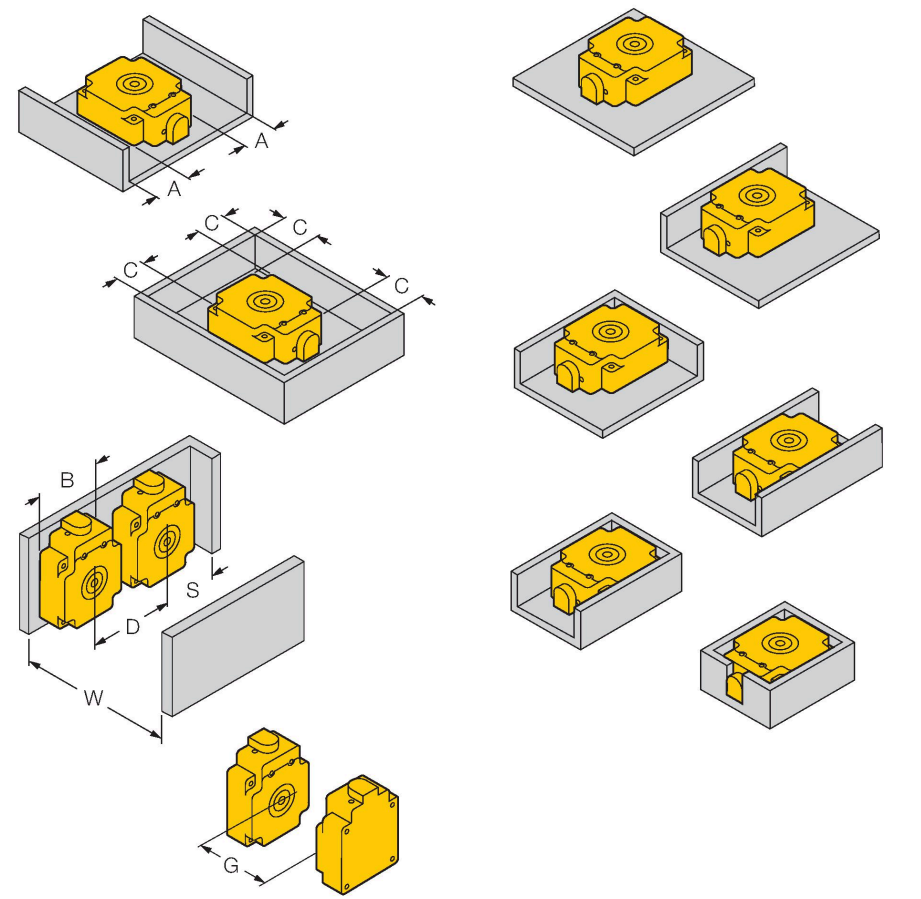
Inductive sensors are designed for wear-free and contactless detection of metal objects. uprox+ sensors have significant advantages due to their patented multi-coil system. They excel thanks to their optimum switching distances, maximum flexibility and operational reliability as well as efficient standardization.

Technical data

Dimensions	102 x 83 x 40 mm
Housing material	Plastic, PPS-GF30, Black
Active area material	Plastic, PPS-GF30, black
Plug adapter	metal, 1.4404 (AISI 316L)
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 IP69K
MTTF	874 years acc. to SN 29500 (Ed. 99) 40 °C
Power-on indication	LED, Green
Switching state	LED, Yellow
Included in delivery	1x rubber sealing plate for rear mounting

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: Sr = 75 mm

1-side flush mounting: Sr = 50 mm

2-side flush mounting: Sr = 45 mm

3-side flush mounting: Sr = 40 mm

4-side flush mounting: Sr = 40 mm

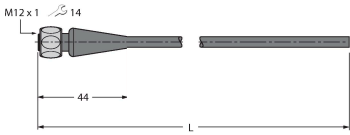
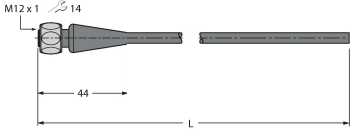
recessed mounting without metal base plate: Sr = 65 mm

The values stated relate to a standard 1 mm thick sheet steel.

Switching distances with different target sizes:

- Sheet steel 150 x 150 mm: Sn = 65 mm
- Sheet steel 60 x 60 mm: Sn = 50 mm
- Sheet steel 40 x 40 mm: Sn = 40 mm
- Sheet steel 120 x 40 mm: Sn = 45 mm

Accessories

Dimension drawing	Type	ID	
	RKH4.4-2/TFE	6934473	Connection cable, M12 female connector, straight, 4-pin, stainless steel coupling nut, cable length: 2 m, jacket material: PVC, gray; temperature range: -25...+80 °C
	RKH4.4-2/TFG	6933086	Connection cable, M12 female connector, straight, 4-pin, stainless steel coupling nut, cable length: 2 m, jacket material: TPE, gray; temperature range: -40...+105 °C