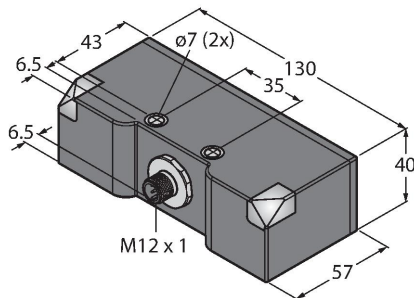


NI30U-Q130WD-VP6X2-H1141

Inductive Sensor – For Harsh Environments



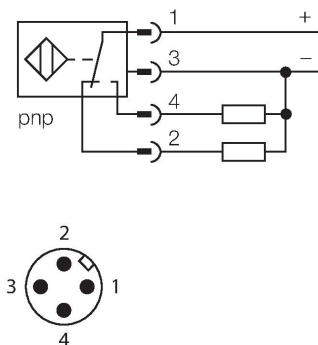
Features

- Rectangular, height 40 mm
- Active surface over the entire front
- 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	NI30U-Q130WD-VP6X2-H1141
ID	100001786
General data	
Rated switching distance	30 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	$\leq \pm 10 \%$
	$\leq \pm 40 \%$, $\leq -25 \text{ }^{\circ}\text{C}$ v $\leq \pm 20 \%$, $\geq +70 \text{ }^{\circ}\text{C}$
Hysteresis	3...15 %
Electrical data	
Operating voltage U_B	10...30 VDC
Ripple U_{ss}	$\leq 10 \%$ U_{Bmax}
DC rated operating current I_o	≤ 200 mA
No-load current	≤ 25 mA
Residual current	≤ 0.1 mA
Isolation test voltage	0.5 kV
Short-circuit protection	yes/Cyclic
Voltage drop at I_o	≤ 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}
Switching frequency	0.25 kHz
Mechanical data	
Design	Rectangular, Q130
Dimensions	130 x 57 x 40 mm

Wiring diagram



Functional principle

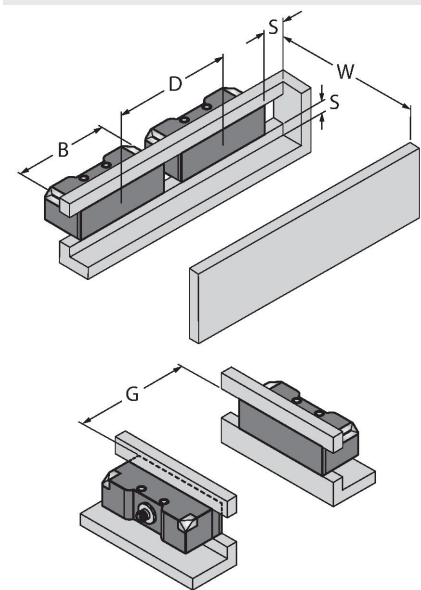
Inductive sensors are designed for wear-free and contactless detection of metal objects. uprox+ sensors have significant advantages due to their patented multi-coil system. They excel thanks to their optimum switching distances, maximum flexibility and operational reliability as well as efficient standardization.

Technical data

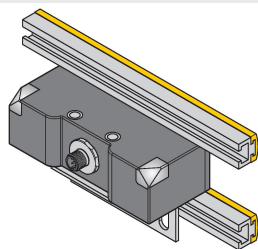
Housing material	Plastic, PPS-GF30, Black
Active area material	Plastic, PPS-GF30, black
Plug adapter	metal, 1.4404 (AISI 316L)
Tightening torque fixing screw	4 Nm
Electrical connection	Connector, M12 × 1
Environmental conditions	
Ambient temperature	-30...+85 °C
Vibration resistance	55 Hz (1 mm)
Shock 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

Mounting instructions

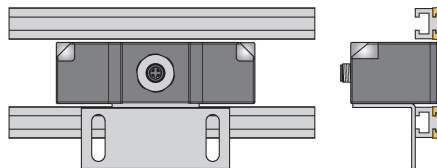
Mounting instructions/Description



Isometric view of the sensor assembly. The sensor is mounted on a metal rail. Dimensions are indicated: D (Distance D), W (Distance W), S (Distance S), B (Width active area), and G (Distance G).



Top view of the sensor assembly. The sensor is mounted on a metal rail. The mounting clip is shown in a yellow color.



Side view of the sensor assembly. The sensor is mounted on a metal rail. The mounting clip is shown in a yellow color.

Distance D	180 mm
------------	--------

Distance W	3 x Sn
------------	--------

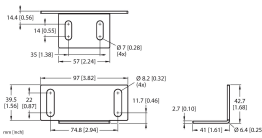
Distance S	1.5 x B
------------	---------

Distance G	6 x Sn
------------	--------

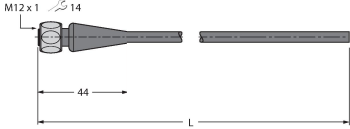
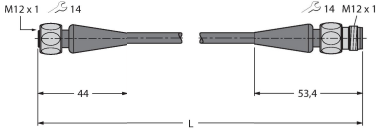
Width active area B	130 mm
---------------------	--------

Flush mounting of the sensor in metal along both long sides.

Accessories

MB-Q130WD	A900166
	Mounting clip for Q130WD sensors; material: stainless steel, 1.4401 (AISI 316)

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-RSH4.4/TFG	6933472	Food and beverage extension cable, M12 female connector, straight, 4-pin to M12 male connector, straight, 4-pin; cable length: 2 m, jacket material: TPE, gray; approval: Ecolab, FDA