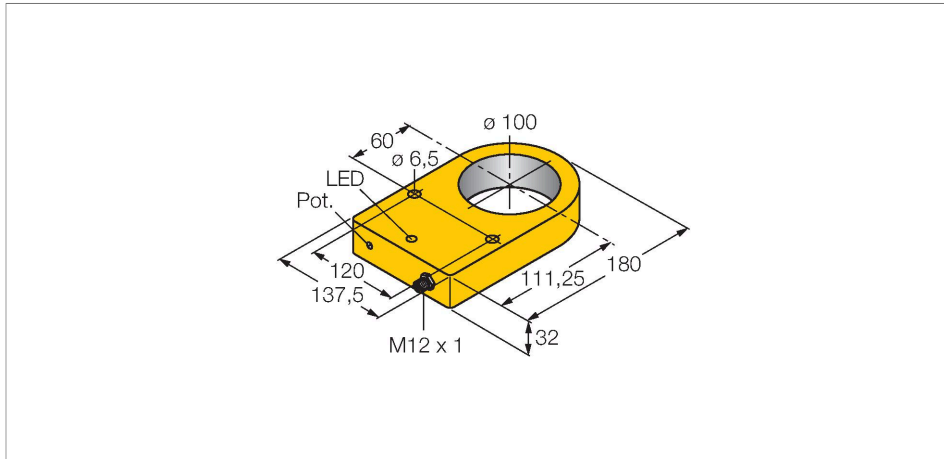


# NI100R-S32XL-VP44X-H1141

## Inductive Sensor – Ring Sensor



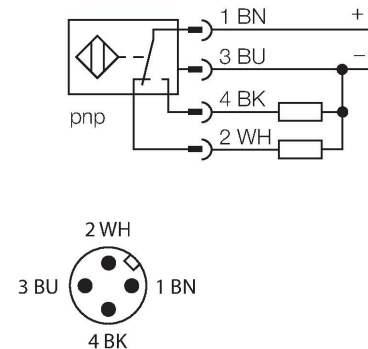
### Features

- Rectangular, height 32 mm
- Plastic, POM
- Integrated amplifier
- Static output behavior
- Sensitivity adjusted via potentiometer
- Output pulse length min. 100 ms
- Short-circuit proof and reverse-polarity protected
- Wide temperature range
- High resolution
- High switching accuracy
- High repeatability
- DC 4-wire, 10...55 VDC
- Changeover contact, PNP output
- M12 x 1 male connector

### Technical data

Type	NI100R-S32XL-VP44X-H1141
ID	1510301
<b>General data</b>	
Inside ring diameter D	100 mm
Steel ball diameter (DIN 5401)	≥ 10 mm
Steel wire diameter (St37)	≥ 4 mm
Repeat accuracy	≤ 2 % of full scale
pulse stop	≥ 5 ms
Pulse duration at the output	≥ 100 ms ± 20 %
Hysteresis	3...15 %
<b>Electrical data</b>	
Operating voltage	10...55 VDC
Residual ripple	≤ 10 % U <sub>ss</sub>
DC rated operational current	≤ 200 mA
No-load current	20 mA
Residual current	≤ 0.1 mA
Isolation test voltage	≤ 0.5 kV
Short-circuit protection	yes / Cyclic
Voltage drop at I <sub>o</sub>	≤ 1.8 V
Wire breakage/Reverse polarity protection	yes / Complete
Output function	4-wire, Complementary contact, PNP
Switching frequency	0.008 kHz
<b>Mechanical data</b>	
Design	Ring sensor, S32XL

### Wiring diagram



### Functional principle

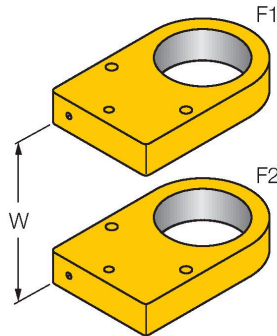
Inductive sensors detect metal objects contactless and wear-free. For this purpose they use a high-frequency electromagnetic AC field that interacts with the target. Inductive ring sensors generate this field through an LC resonant circuit. The target acts as the coil core.

## Technical data

Dimensions	180 x 137.5 x 32 mm
Housing material	Plastic, POM
Electrical connection	Connector, M12 × 1
Coil body	plastic, POM
<b>Environmental conditions</b>	
Ambient temperature	-25...+70 °C
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP67
MTTF	2283 years acc. to SN 29500 (Ed. 99) 40 °C
Switching state	LED, Yellow

## Mounting instructions

### Mounting instructions/Description

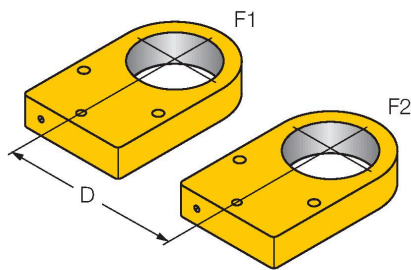


Distance D 290 mm

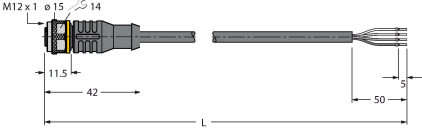
Distance W 240 mm

The mounting distances depend on the adjusted sensitivity

For limited metal-free spaces use sensors with offset oscillator frequencies:  
Ni100R-S32XL-VP44X-H1141/F2  
(Id. 1510303)



Wiring accessories

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