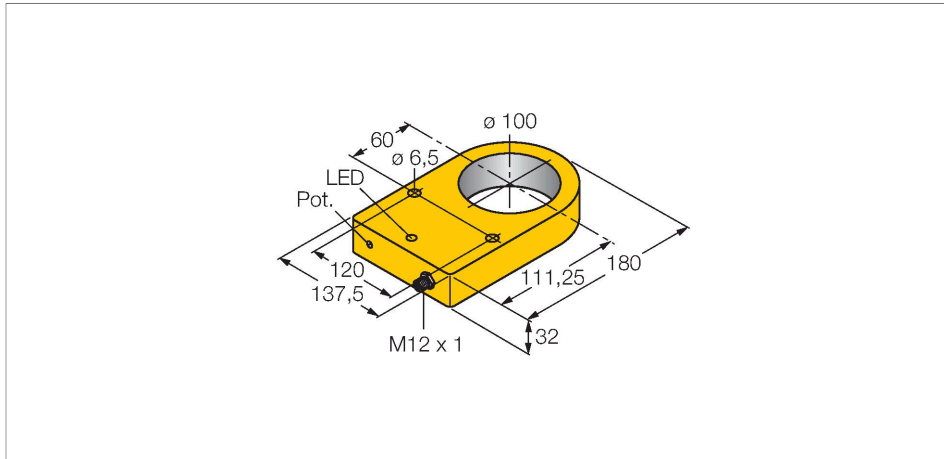


NI100R-S32XL-VP44X-H1141

Inductive Sensor – Ring Sensor



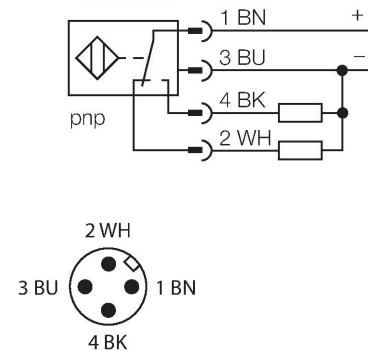
Features

- 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
Ident. no.	1510301
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 %
Ambient temperature	-25...+70 °C
Operating voltage	10...55 VDC
Residual ripple	≤ 10 % U _{ss}
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 _e	≤ 1.8 V
Wire breakage/Reverse polarity protection	yes / Complete
Output function	4-wire, Complementary contact, PNP
Switching frequency	0.008 kHz
Design	Ring sensor, S32XL
Dimensions	180 x 137.5 x 32 mm
Housing material	Plastic, POM

Wiring diagram



Functional principle

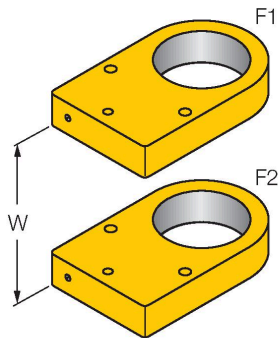
Inductive sensors detect metal objects contactless and wear-free. For this purpose they use a high-frequency electromagnetic AC field that interacts with the target. Inductive ring sensors generate this field through an LC resonant circuit. The target acts as the coil core.

Technical data

Electrical connection	Connector, M12 × 1
Coil body	plastic, POM
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

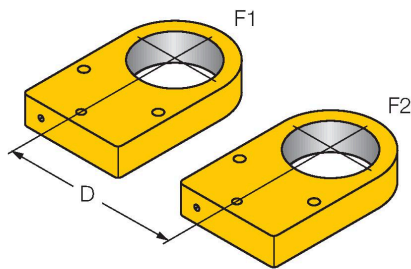
Mounting instructions

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	Ident. no.	
	RKC4.4T-2/TEL	6625013	Connection cable, female M12, straight, 4-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see www.turck.com