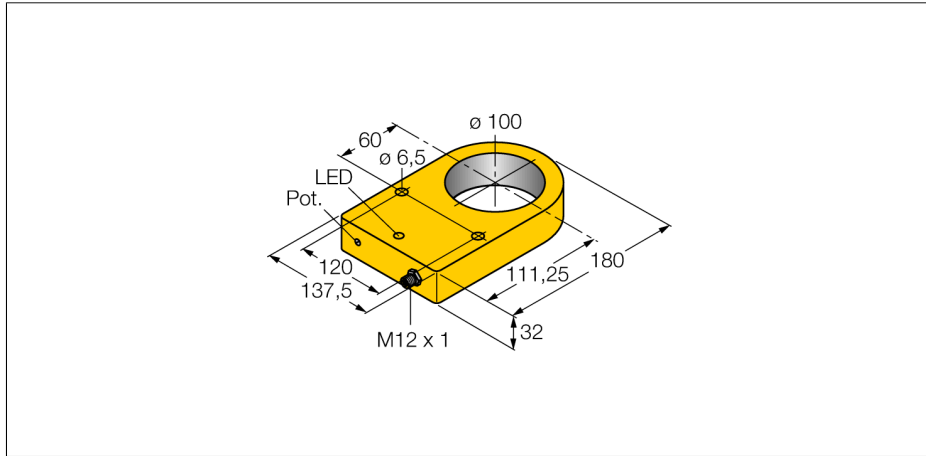


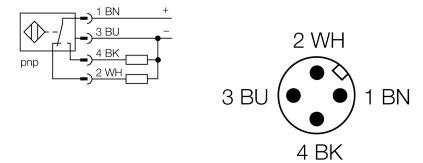
**Inductive sensor
ring sensor
NI100R-S32XL-VP44X-H1141**



- Rectangular, height 32 mm
- Plastic, POM
- Integrated amplifier
- Static output performance
- Sensitivity adjustable 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 connector

Type code	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
Repeatability	≤ 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...55VDC
Residual ripple	≤ 10 % U _{ss}
DC rated operational current	≤ 200 mA
No-load current I ₀	≤ 20 mA
Residual current	≤ 0.1 mA
Rated insulation voltage	≤ 0.5 kV
Short-circuit protection	yes/ cyclic
Voltage drop at I ₀	≤ 1.8 V
Wire breakage / Reverse polarity protection	yes/ complete
Output function	4-wire, changover contact, PNP
Switching frequency	0.008 kHz
Design	ring sensor, S32XL
Dimensions	180x 137.5x 32 mm
Housing material	Plastic, POM
Connection	male, M12 x 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	● yellow

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.

**Inductive sensor
ring sensor
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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)

