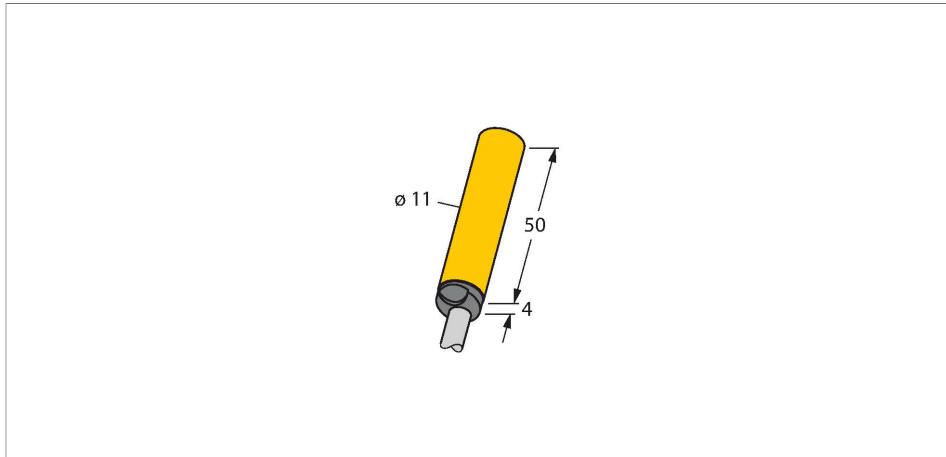


NI5-K11-AN7

Inductive Sensor



Features

- Smooth barrel, Ø 11 mm
- Plastic, PA12-GF30
- DC 3-wire, 10...30 VDC
- NO contact, NPN output
- TTL compatible
- Cable connection

Wiring diagram



Technical data

Type	NI5-K11-AN7
ID	1718300
General data	
Rated switching distance	5 mm
Mounting conditions	Non-flush
Secured operating distance	$\leq (0.81 \times S_n)$ mm
Correction factors	St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4
Repeat accuracy	≤ 2 % of full scale
Hysteresis	3...15 %
Electrical data	
Operating voltage	10...30 VDC
Residual ripple	≤ 10 % U_{ss}
DC rated operational current	≤ 200 mA
No-load current	10 mA
Residual current	≤ 0.1 mA
Isolation test voltage	≤ 0.5 kV
Short-circuit protection	no
Voltage drop at I_o	≤ 0.7 V
Wire breakage/Reverse polarity protection	yes / yes (voltage supply)
Output function	3-wire, NO contact, NPN
Switching frequency	2 kHz
Mechanical data	
Design	Smooth barrel, 11 mm

Functional principle

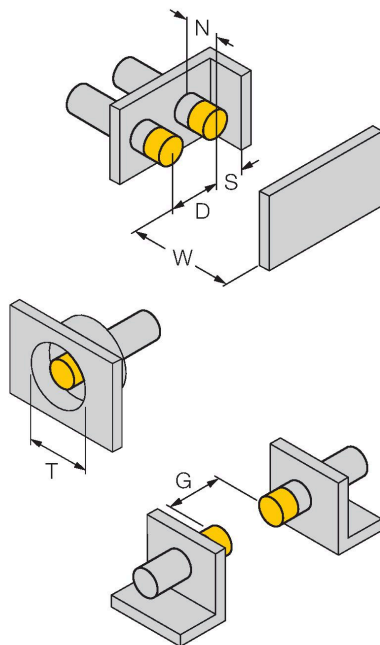
Inductive sensors detect metal objects contactless and wear-free. For this, they use a high-frequency electromagnetic AC field that interacts with the target. Inductive sensors generate this field via an RLC circuit with a ferrite coil.

Technical data

Dimensions	54 mm
Housing material	Plastic, PA12-GF30
Active area material	Plastic, PA12-GF30
End cap	Plastic, EPTR
Electrical connection	Cable
Cable quality	Ø 5.2 mm, LifYY, PVC, 2 m
Core cross-section	3 x 0.34 mm ²
Environmental conditions	
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
Included in delivery	BS11

Mounting instructions

Mounting instructions/Description



Distance D	3 x B
Distance W	3 x Sn
Distance T	3 x B
Distance S	1.5 x B
Distance G	6 x Sn
Distance N	2 x Sn
Diameter active area B	Ø 11 mm

Accessories

BS 11

69462

Fixing clamp; material mounting
block: PBT

