

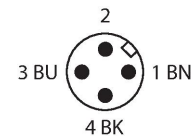
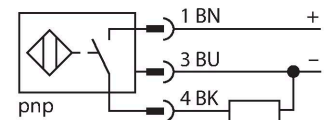
NI3.5-Q5.5-AN6X-0.3-VSG3M

Inductive Sensor

Features

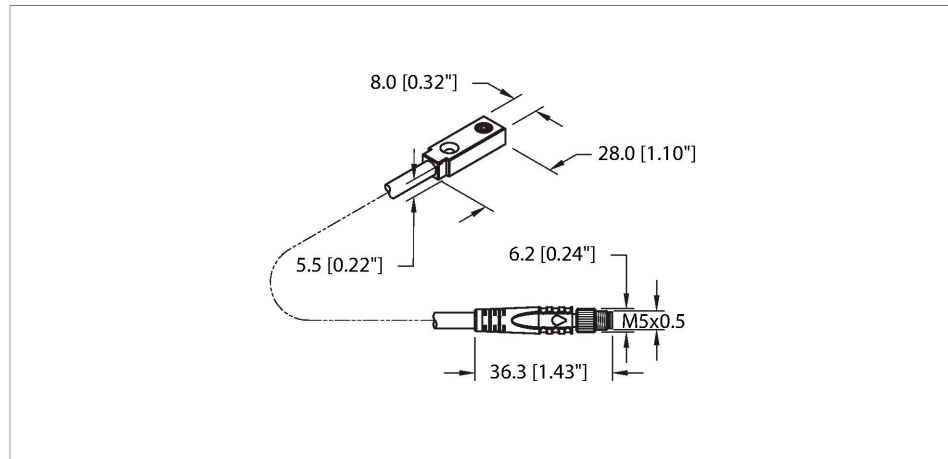
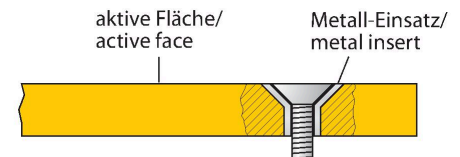
- Rectangular, height 5.5 mm
- Active face on top
- Plastic, PP
- DC 3-wire, 10...30 VDC
- NO contact, NPN output
- Pigtail with M5 connector

Wiring diagram



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

Type	NI3.5-Q5.5-AN6X-0.3-VSG3M
ID	4613681
General data	
Rated switching distance	3.5 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	$\leq 2 \%$ of full scale
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	≤ 150 mA
No-load current	≤ 15 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	3-wire, NO contact, NPN
Switching frequency	2 kHz
Mechanical data	
Design	Rectangular, Q5,5

Technical data

Dimensions	28 x 8 x 5.5 mm
Housing material	Plastic, PP-GF20
Active area material	PP-GF20
Tightening torque fixing screw	0.5 Nm
Electrical connection	Cable with connector, M5 x 0.5
Cable quality	Ø 3 mm, Gray, Lif9Y-11Y, PUR, 0.3 m
	Suited for E-ChainSystems® acc. to manufacturers declaration H1063M
Core cross-section	3 x 0.14 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
Switching state	LED, Yellow

Mounting instructions

Mounting instructions/Description		
	Distance D	3 x B
	Distance W	3 x Sn
	Distance S	1.5 x B
	Distance G	6 x Sn
	Width active area B	8 mm

Accessories

MW-Q4.7/Q5.5	6945013
Mounting bracket for rectangular Q4.7 or Q5.5; material VA 1.4401	

