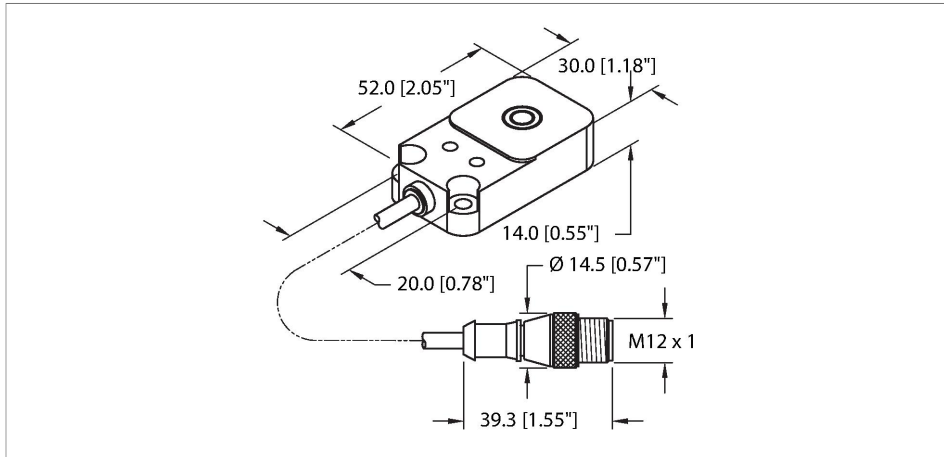


NI20-Q14-AP6X2-0.3-RS4T Inductive Sensor



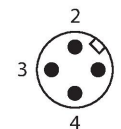
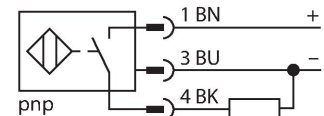
Technical data

Type	NI20-Q14-AP6X2-0.3-RS4T
ID	4690293
General data	
Rated switching distance	20 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	≤ 200 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, PNP
Switching frequency	0.25 kHz
Mechanical data	
Design	Rectangular, Q14

Features

- Rectangular, height 14 mm
- Active face on top
- Plastic, PBT-GF30-V0
- DC 3-wire, 10...30 VDC
- NO contact, PNP output
- Pigtail with male end M12 x 1

Wiring diagram



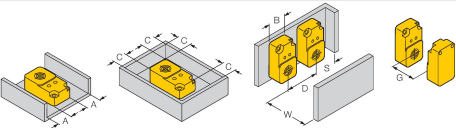
Functional principle

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

Dimensions	52 x 30 x 14 mm
Housing material	Plastic, PBT-GF30-V0
Active area material	PBT-GF30-V0
Material coupling nut	metal, CuZn, nickel-plated
Electrical connection	Cable with connector, M12 × 1
Cable quality	Ø 5.2 mm, LifYY-11Y, PUR, 0.3 m
Core cross-section	3 x 0.34 mm²
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
Power-on indication	LED, Green
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
	Distance N 2 x Sn
	Distance A 1 x Sn
	Distance C 2 x Sn
	Width active area B 30 mm

NI20-Q14-AP6X2-0.3-RS4T | 02/21/2025 14-39 | technical changes reserved

Accessories

MW-Q14/Q20

6945006

Mounting bracket for rectangular Q14
or Q20; material VA 1.4301

