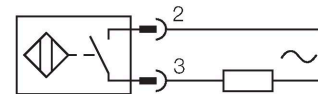


NI20-Q14-ADZ32X2-0.2-SB3T Inductive Sensor

Features

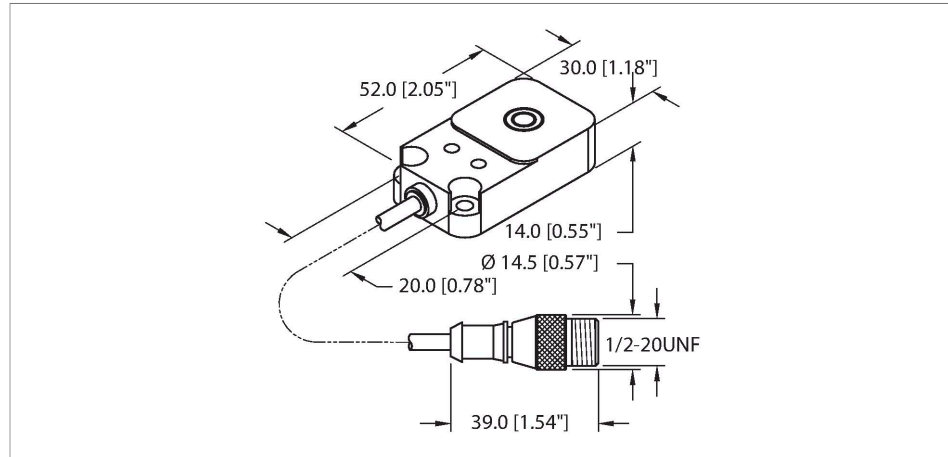
- Rectangular, height 14 mm
- Active face on top
- Plastic, PBT-GF30-V0
- AC 2-wire, 20–250 VAC
- DC 2-wire, 10–300 VDC
- NO contact
- 1/2" male connector

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	NI20-Q14-ADZ32X2-0.2-SB3T
ID	42054802
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	≤ 2 % of full scale
Hysteresis	3...15 %
Electrical data	
Operating voltage U_B	20...250 VAC
Operating voltage U_B	10...300 VDC
AC rated operational current	≤ 100 mA
DC rated operating current I_o	≤ 100 mA
Frequency	$\geq 50 \dots \leq 60$ Hz
Residual current	≤ 1.7 mA
Isolation test voltage	1.5 kV
Surge current	≤ 1 A (≤ 10 ms max. 5 Hz)
Short-circuit protection	yes/Latching
Voltage drop at I_o	≤ 6 V
Wire break/reverse polarity protection	yes/Complete
Output function	2-wire, NO contact, 2-wire
Smallest operating current	≥ 3 mA

Technical data

Switching frequency	0.02 kHz
Mechanical data	
Design	Rectangular, Q14
Dimensions	52 x 30 x 14 mm
Housing material	Plastic, PBT-GF30-V0
Active area material	PBT-GF30-V0
Material coupling nut	CuZn, nickel-plated
Electrical connection	Cable with connector, 1/2"
Cable quality	Ø 5.2 mm, Gray, LifYY-11Y, PUR, 0.2 m
Core cross-section	2 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
Power-on indication	LED, Green
Switching state	LED, Red

Mounting instructions

Mounting instructions/Description

Distance D	$3 \times B$
Distance W	$3 \times S_n$
Distance S	$1.5 \times B$
Distance G	$6 \times S_n$
Distance N	$2 \times S_n$
Distance A	$1 \times S_n$
Distance C	$2 \times S_n$
Width active area B	30 mm

Accessories

MW-Q14/Q20

6945006

Mounting bracket for rectangular Q14
or Q20; material VA 1.4301

