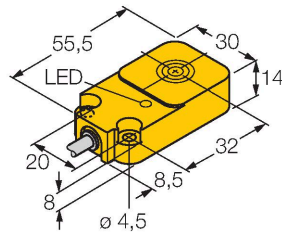


NI20-Q14-AD4X

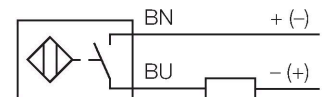
Inductive Sensor



Features

- Rectangular, height 14 mm
- Active face on top
- Plastic, PBT-GF30-V0
- DC 2-wire, 10...65 VDC
- NO contact
- Cable connection

Wiring diagram



Technical data

Type	NI20-Q14-AD4X
ID	4414557
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
Temperature drift	$\leq \pm 10$ %
Hysteresis	1...15 %
Electrical data	
Operating voltage U_B	10...65 VDC
Ripple U_{ss}	≤ 10 % U_{Bmax}
DC rated operating current I_B	≤ 100 mA
Residual current	≤ 0.6 mA
Isolation test voltage	0.5 kV
Short-circuit protection	yes/Cyclic
Voltage drop at I_B	≤ 5 V
Wire break/reverse polarity protection	Complete
Output function	2-wire, NO contact, 2-wire
Smallest operating current	≥ 3 mA
Switching frequency	0.15 kHz

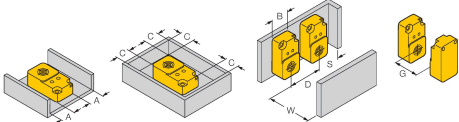
Functional principle

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

Mechanical data	
Design	Rectangular, Q14
Dimensions	52 x 30 x 14 mm
Housing material	Plastic, PBT-GF30-V0
Active area material	PBT-GF30-V0
Electrical connection	Cable
Cable quality	Ø 5.2 mm, Gray, LifYY-11Y, PUR, 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
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 0.5 x B
	Distance A 1 x Sn
	Distance C 2 x Sn
	Width active area B 30 mm

NI20-Q14-AD4X | 02/21/2025 13-47 | technical changes reserved

Accessories

MW-Q14/Q20

6945006

Mounting bracket for rectangular Q14
or Q20; material VA 1.4301

