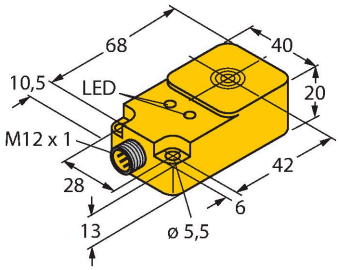
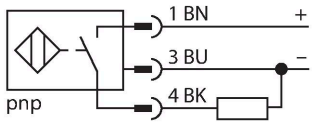
NI25-Q20-AP6X2-H1141
Inductive Sensor

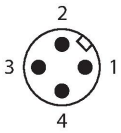


Features

- Rectangular, height 20 mm
- Active face on top
- Plastic, PBT-GF30-V0
- DC 3-wire, 10…30 VDC
- NO contact, PNP output
- M12 x 1 male connector

Wiring diagram





Technical data

Type	NI25-Q20-AP6X2-H1141
ID	1602702
General data	
Rated switching distance	25 mm
Mounting conditions	Non-flush
Secured operating distance	≤ (0.81 × Sn) mm
Correction factors	St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4
Repeat accuracy	≤ 2 % of full scale
Temperature drift	≤ ±10 %
Hysteresis	3…15 %
Electrical data	
Operating voltage U_B	10…30 VDC
Ripple U_{ss}	≤ 10 % U_{Bmax}
DC rated operating current I_e	≤ 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_e	≤ 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, Q20
Dimensions	68 x 40 x 20 mm
Housing material	Plastic, PBT-GF30-V0

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.

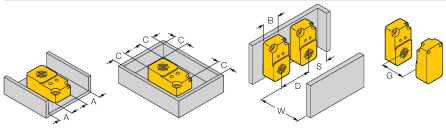
NI25-Q20-AP6X2-H1141| 13-11-2024 13-40 | Technical modifications reserved

Technical data

Active area material	PBT-GF30-V0
Electrical connection	Connector, M12 × 1
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

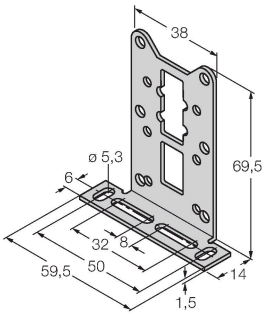
Mounting instructions/Description



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	40 mm

Accessories

MW-Q14/Q20	6945006



Mounting bracket for rectangular Q14 or Q20; material VA 1.4301

NI25-Q20-AP6X2-H1141| 13-11-2024 13-40 | Technical modifications reserved

Accessories

Dimension drawing	Type	ID	
	RKC4T-2/TEL	6625010	Connection cable, M12 female connector, straight, 3-pin, cable length: 2 m, jacket material: PVC, black; cULus approval

NI25-Q20-AP6X2-H1141| 13-11-2024 13-40 | Technical modifications reserved