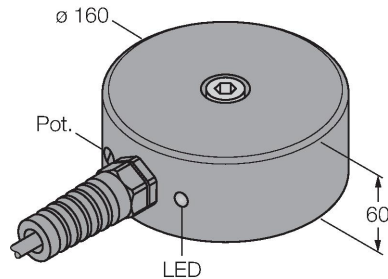


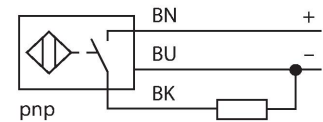
NI100-Q160-AP44X/S120 Inductive Sensor – With Increased Temperature Range



Features

- Ø 160 mm, height 60 mm
- Active face on top
- Plastic, PPO
- Sensitivity adjusted via potentiometer
- S120 = Temperatures up to +120 °C
- DC 3-wire, 10...55 VDC
- NO contact, PNP output
- Cable connection

Wiring diagram

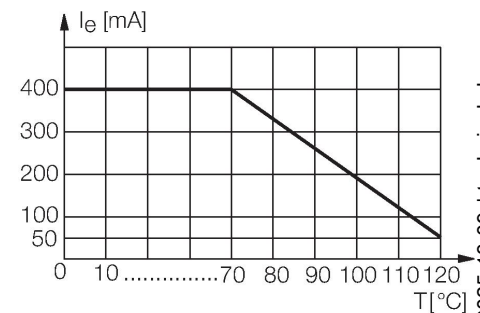


Technical data

Type	NI100-Q160-AP44X/S120
ID	1440012
Special version	S120 Corresponds to: Maximum ambient temperature = 120 °C
General data	
Rated switching distance	100 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	$\leq \pm 10$ %
	$\leq \pm 20$ %, $\geq +70$ °C
Hysteresis	3...15 %
Electrical data	
Operating voltage U_B	10...55 VDC
Ripple U_{ss}	≤ 10 % U_{Bmax}
DC rated operating current I_e	≤ 400 mA
No-load current	≤ 20 mA
Residual current	≤ 0.1 mA
Isolation test voltage	0.5 kV
Short-circuit protection	yes/Cyclic
Voltage drop at I_e	≤ 2 V
Wire break/reverse polarity protection	yes/Complete
Output function	3-wire, NO contact, PNP

Functional principle

Inductive sensors detect metal objects contactless and wear-free. For this purpose they use a high-frequency electromagnetic AC field that interacts with the target. The sensors hosting a ferrite core coil generate the AC field through an LC resonant circuit. Special versions are available for ambient temperatures between -60°C and +250°C.

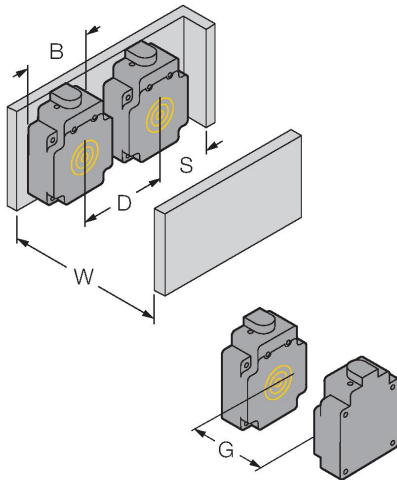
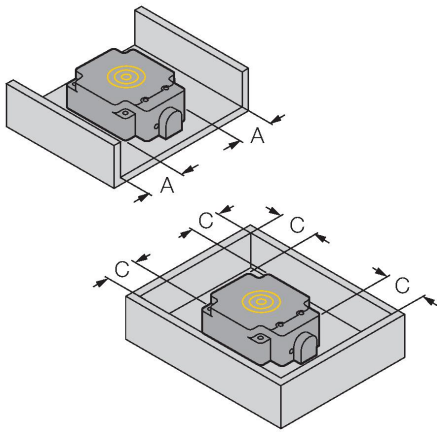


Technical data

Switching frequency	0.05 kHz
Mechanical data	
Design	Rectangular, Q160
Dimensions	160 x 160 x 60 mm
Housing material	Plastic, PPO, Black
Active area material	PPO, black
Electrical connection	Cable
Cable quality	Ø 6 mm, SiHSi, Silicone, 2 m
Core cross-section	3 x 0.75 mm ²
Environmental conditions	
Ambient temperature	-25...+120 °C
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP67
Switching state	LED, Yellow
Included in delivery	plastic mounting screw, hexagonal, M16 x 2

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	160 mm