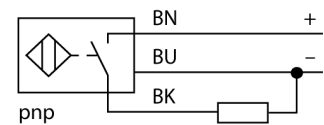


**Inductive sensor  
with extended temperature range  
NI100-Q160-AP44X/S120**

- Ø160 mm, height 60 mm
- Active face on top
- Plastic, PPO
- Sensitivity adjustable via potentiometer
- For temperatures up to +120°C
- DC 3-wire, 10...55 VDC
- NO contact, PNP output
- Cable connection

**Wiring diagram**

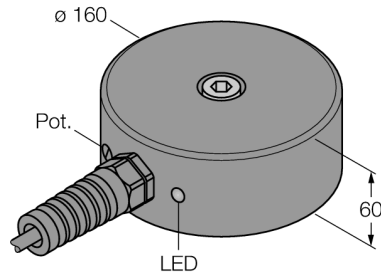
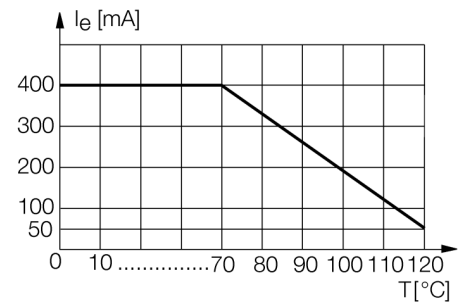


**Functional principle**

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.

**derating curve**



<b>Type code</b>	NI100-Q160-AP44X/S120
<b>Ident no.</b>	1440012
<b>Rated operating distance S<sub>n</sub></b>	100 mm
<b>Mounting condition</b>	non-flush
<b>Assured sensing range</b>	≤ (0,81 x S <sub>n</sub> ) mm
<b>Correction factors</b>	St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4
<b>Repeatability</b>	≤ 2 % of full scale
<b>Temperaturdrift</b>	10 %
	≤ ± 20 %, ≥ +70 °C
<b>Hysteresis</b>	3...15 %
<b>Ambient temperature</b>	-25...+120 °C
<b>Operating voltage</b>	10...55VDC
<b>Residual ripple</b>	≤ 10 % U <sub>in</sub>
<b>DC rated operational current</b>	≤ 400 mA
<b>Rated operational current</b>	see derating curve
<b>No-load current I<sub>0</sub></b>	≤ 20 mA
<b>Residual current</b>	≤ 0.1 mA
<b>Rated insulation voltage</b>	≤ 0.5 kV
<b>Short-circuit protection</b>	yes/ cyclic
<b>Voltage drop at I<sub>e</sub></b>	≤ 2 V
<b>Wire breakage / Reverse polarity protection</b>	yes/ complete
<b>Output function</b>	3-wire, NO contact, PNP
<b>Switching frequency</b>	0.05 kHz
<b>Design</b>	rectangular, Q160
<b>Dimensions</b>	160x 60 mm
<b>Housing material</b>	Plastic, PPO, black
<b>Connection</b>	cable
<b>Cable quality</b>	6 mm, SiHSi, Silicone, 2 m
<b>Cable cross section</b>	3 x 0.75 mm <sup>2</sup>
<b>Vibration resistance</b>	55 Hz (1 mm)
<b>Shock resistance</b>	30 g (11 ms)
<b>Protection class</b>	IP67
<b>Switching state</b>	• yellow
<b>Included in scope of supply</b>	plastic mounting screw, hexagonal, M16 x 2

**Inductive sensor  
with extended temperature range  
NI100-Q160-AP44X/S120**

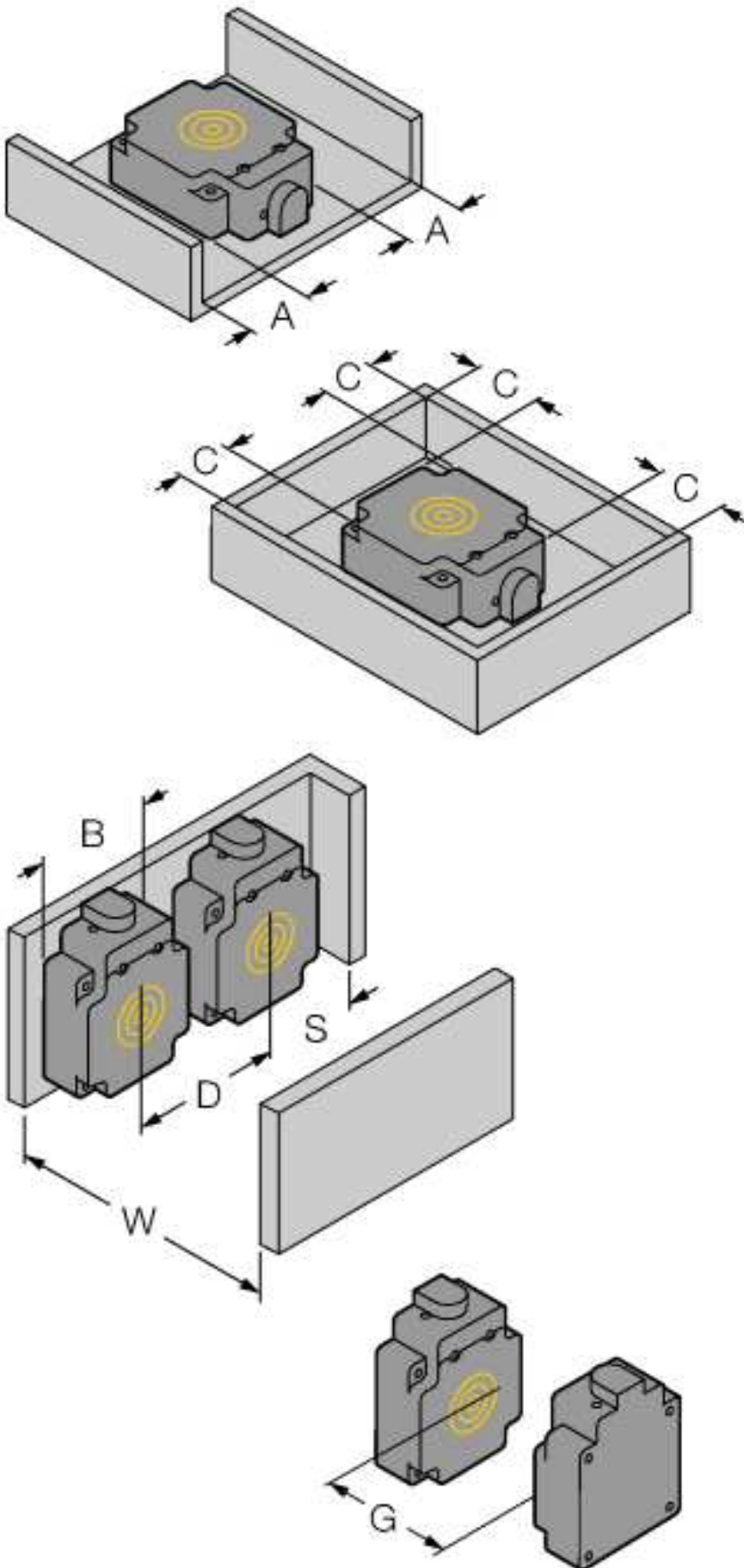
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<b>Distance D</b>	3 x B
Distance W	3 x Sn
Distance S	1.5 x B
Distance G	6 x Sn
Distance N	2 x Sn
Distance A	1 x Sn
Distance C	2 x Sn

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<b>Width of the active face B</b>	160 mm
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Inductive sensor  
with extended temperature range  
NI100-Q160-AP44X/S120



**Inductive sensor  
with extended temperature range  
NI100-Q160-AP44X/S120**

**TURCK**

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