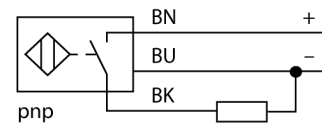


**Inductive sensor
with extended temperature range
NI8-M18-AP6X/S120**

- Threaded barrel, M18 x 1
- Chrome-plated brass
- For temperatures up to +120°C
- 3-wire DC, 10...30 VDC
- NO contact, PNP output
- Cable connection

Wiring diagram

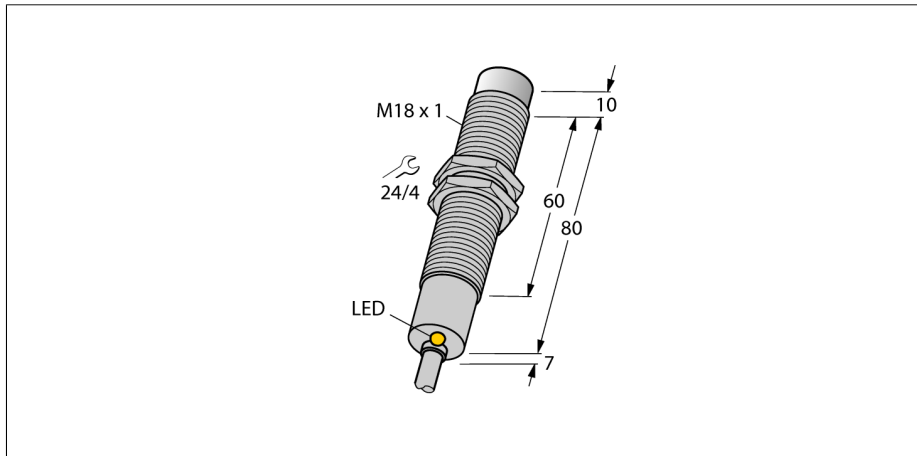
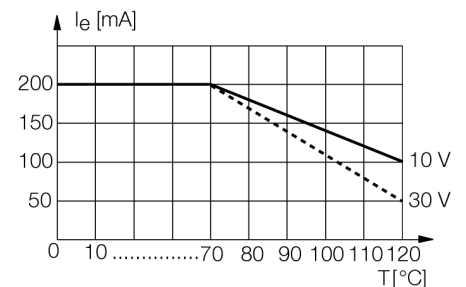


Functional principle

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

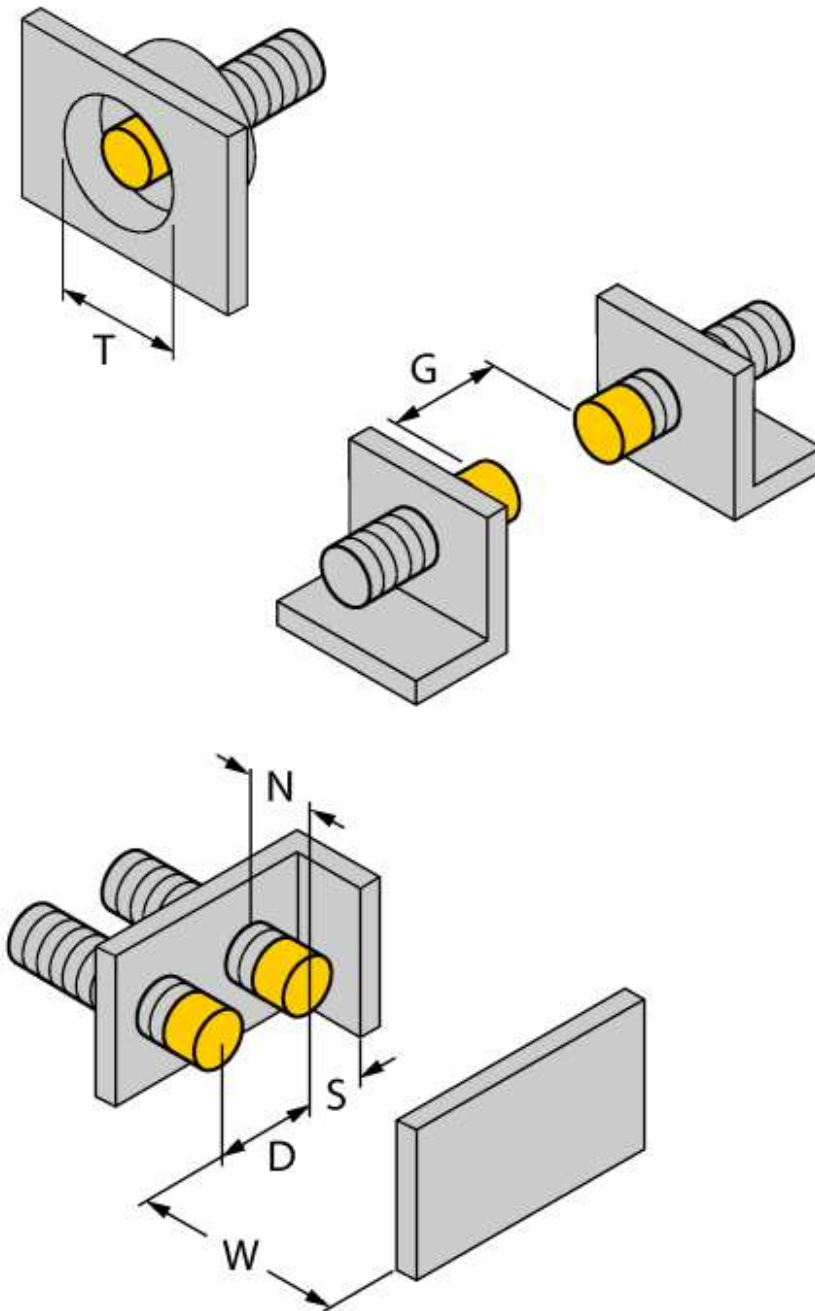


| | |
|---|---|
| Type code | NI8-M18-AP6X/S120 |
| Ident no. | 4611230 |
| Rated operating distance Sn | 8 mm |
| Mounting condition | non-flush |
| Assured sensing range | ≤ (0,81 x Sn) mm |
| Correction factors | St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4 |
| Repeatability | ≤ 2 % of full scale |
| Temperaturdrift | 10 % |
| | ≤ ± 20 %, ≥ +70 °C |
| Hysteresis | 3...15 % |
| Ambient temperature | -25...+120 °C |
| Operating voltage | 10...30VDC |
| Residual ripple | ≤ 10 % U _{in} |
| DC rated operational current | ≤ 200 mA |
| Rated operational current | see derating curve |
| No-load current I ₀ | ≤ 15 mA |
| Residual current | ≤ 0.1 mA |
| Rated insulation voltage | ≤ 0.5 kV |
| Short-circuit protection | yes/ cyclic |
| Voltage drop at I _e | ≤ 1.8 V |
| Wire breakage / Reverse polarity protection | yes/ complete |
| Output function | 3-wire, NO contact, PNP |
| Switching frequency | 0.1 kHz |
| Design | threaded barrel, M18 x 1 |
| Dimensions | 97 mm |
| Housing material | Metal, CuZn, chrome-plated |
| Material active face | Plastic, PA |
| End cap | Plastic, EPTR |
| Max. tightening torque housing nut | 25 Nm |
| Connection | cable |
| Cable quality | 5.2 mm, SiHSi, Silicone, 2 m |
| Cable cross section | 3 x 0.5 mm ² |
| Vibration resistance | 55 Hz (1 mm) |
| Shock resistance | 30 g (11 ms) |
| Protection class | IP67 |
| Switching state | • yellow |

**Inductive sensor
with extended temperature range
NI8-M18-AP6X/S120**

| | |
|------------|---------|
| Distance D | 3 x B |
| Distance W | 3 x Sn |
| Distance T | 3 x B |
| Distance S | 1.5 x B |
| Distance G | 6 x Sn |
| Distance N | 2 x Sn |

Diameter of the active area B \varnothing 18 mm



**Inductive sensor
with extended temperature range
NI8-M18-AP6X/S120**

Accessories

| Type code | Ident no. | Description | Dimension drawing |
|-----------|-----------|--|-------------------|
| QM-18 | 6945102 | Quick-mount bracket with dead-stop; material: Chrome-plated brass Male thread M24 x 1.5. Note: The switching distance of proximity switches can be reduced by the use of quick-mount brackets. | |
| MW-18 | 6945004 | Mounting bracket for threaded barrel devices; material: Stainless steel A2 1.4301 (AISI 304) | |