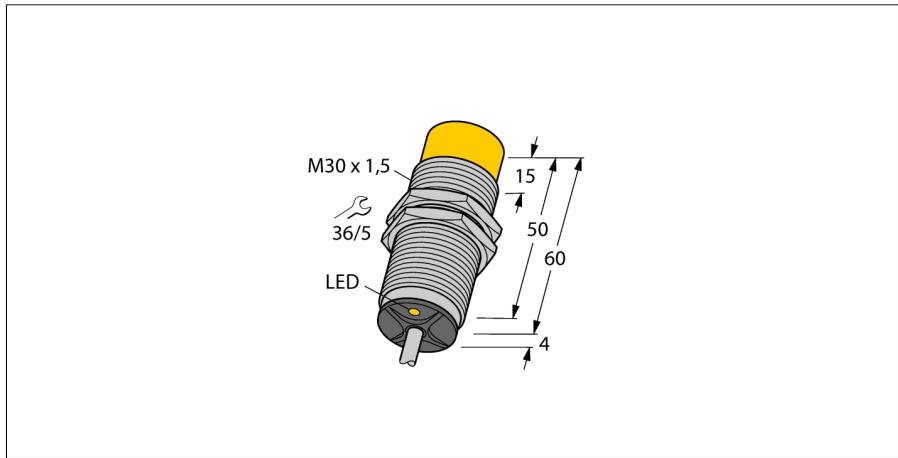
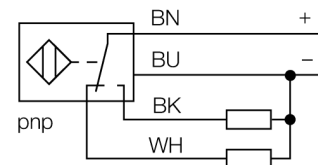


Inductive sensor
With increased switching distance
NI20-M30-VP6X 7M



- Threaded barrel, M30 x 1.5
- Chrome-plated brass
- Large sensing range
- DC 4-wire, 10...30 VDC
- Changeover contact, PNP output
- Cable connection

Wiring Diagram



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.

| | |
|---|---|
| Type designation | NI20-M30-VP6X 7M |
| Ident no. | 4590611 |
| Rated switching distance Sn | 20 mm |
| Mounting conditions | Non-flush |
| Secured operating distance | ≤ (0,81 x 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 % |
| Ambient temperature | -25...+70 °C |
| Operating voltage | 10...30 VDC |
| Residual ripple | ≤ 10 % U _{ss} |
| DC rated operational current | ≤ 200 mA |
| No-load current I ₀ | ≤ 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 breakage/Reverse polarity protection | yes/ Complete |
| Output function | 4-wire, Complementary contact, PNP |
| Reverse polarity protection | Complete |
| Switching frequency | 0.5 kHz |
| Design | Threaded barrel, M30 × 1.5 |
| Dimensions | 64 mm |
| Housing material | Metal, CuZn, Chrome-plated |
| Active area material | Plastic, PA12-GF30 |
| End cap | Plastic, EPTR |
| Max. tightening torque housing nut | 75 Nm |
| Electrical connection | Cable |
| Cable quality | 5.2 mm, LifYY, PVC, 7m |
| Cable cross section | 4 x 0.34 mm ² |
| 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 |

**Inductive sensor
With increased switching distance
NI20-M30-VP6X 7M**

| | |
|------------------------|---------|
| 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 | 20 mm |
| <hr/> | |
| Diameter active area B | Ø 30 mm |



**Inductive sensor
With increased switching distance
NI20-M30-VP6X 7M**

Accessories

| Type code | Ident no. | Description | |
|-----------|-----------|--|--|
| BST-30B | 6947216 | Fixing clamp for threaded barrel devices, with dead-stop; material: PA6 | |
| QM-30 | 6945103 | Quick-mount bracket with dead-stop; material: Chrome-plated brass Male thread M36 x 1.5. Note: The switching distance of proximity switches can be reduced by the use of quick-mount brackets. | |
| MW-30 | 6945005 | Mounting bracket for threaded barrel devices; material: Stainless steel A2 1.4301 (AISI 304) | |
| BSS-30 | 6901319 | Mounting bracket for smooth and threaded barrel devices; material: Polypropylene | |