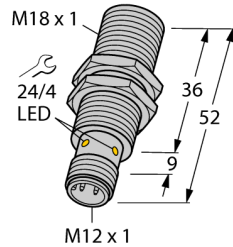


Inductive Sensor

BI10U-M18-VN6X-H1141



| | |
|------|----------------------|
| Type | BI10U-M18-VN6X-H1141 |
| ID | 1644850 |

| General data | |
|--------------------------------|-----------------------------|
| Rated switching distance S_n | 10 mm |
| Mounting conditions | Flush |
| Secured operating distance | $\leq (0.81 \times S_n)$ mm |
| Repeat accuracy | $\leq 2\%$ of full scale |
| Temperature drift | $\leq \pm 10\%$ |
| Hysteresis | 3...15 % |

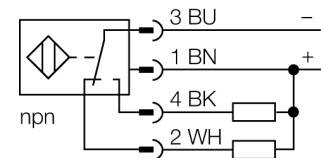
| Electrical data | |
|---|------------------------------------|
| Operating voltage | 10...30 VDC |
| Residual ripple | $\leq 10\% U_{ss}$ |
| DC rated operational current | ≤ 200 mA |
| Residual current | ≤ 0.1 mA |
| Isolation test voltage | ≤ 0.5 kV |
| Short-circuit protection | yes/ Cyclic |
| Voltage drop at I_s | ≤ 1.8 V |
| Wire breakage/Reverse polarity protection | yes/ Complete |
| Output function | 4-wire, Complementary contact, NPN |
| DC field stability | 300 mT |
| AC field stability | 300 mT _{ss} |
| Switching frequency | 1.5 kHz |

| Mechanical data | |
|---------------------------------------|----------------------------|
| Design | Threaded barrel, M18 x 1 |
| Dimensions | 52 mm |
| Housing material | Metal, CuZn, Chrome-plated |
| Active area material | Plastic, LCP |
| Max. tightening torque of housing nut | 10 Nm |
| Electrical connection | Connector, M12 x 1 |

| Environmental conditions | |
|--------------------------|---|
| Ambient temperature | -25...+70 °C |
| Vibration resistance | 55 Hz (1 mm) |
| Shock resistance | 30 g (11 ms) |
| Protection class | IP68 |
| MTTF | 874 years acc. to SN 29500 (Ed. 99) 40 °C |

- Threaded barrel, M18 x 1
- Chrome-plated brass
- Factor 1 for all metals
- Protection class IP68
- Resistant to magnetic fields
- Large switching distance
- DC 4-wire, 10...30 VDC
- Changeover contact, NPN output
- M12 x 1 male connector

Wiring Diagram



Functional principle

Inductive sensors are designed for wear-free and contactless detection of metal objects. uprox3 sensors have significant advantages due to their patented multi-coil system. They excel thanks to their optimum switching distances, maximum flexibility and operational reliability as well as efficient standardization.

Switching state LED, Yellow

Accessories

| Type code | Ident-No. | | Dimension drawing |
|-----------|-----------|--|-------------------|
| BST-18B | 6947214 | Mounting clamp for threaded barrel sensors, with dead-stop; material: PA6 | |
| MW-18 | 6945004 | Mounting bracket for threaded barrel sensors; material: Stainless steel A2 1.4301 (AISI 304) | |
| BSS-18 | 6901320 | Mounting clamp for smooth and threaded barrel sensors; material: Polypropylene | |