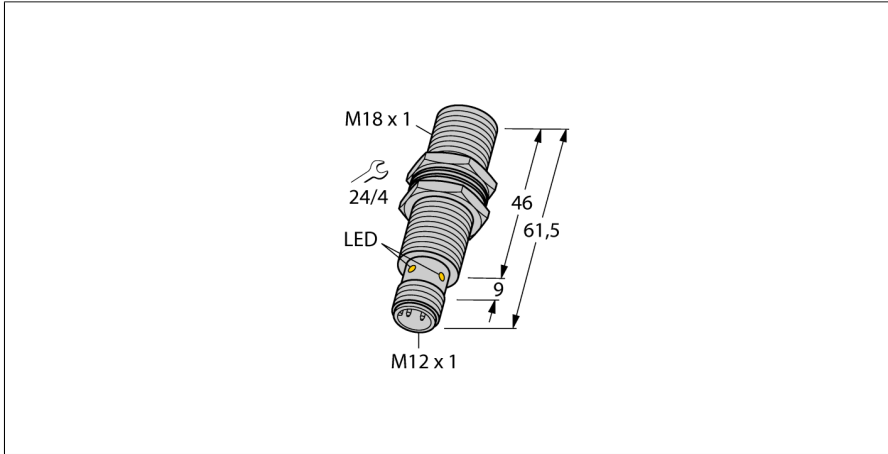
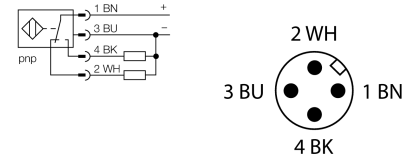


# Inductive Sensor With Extended Switching Distance BI8U-M18M-VP44X-H1141



- Threaded barrel, M18 x 1
- Chrome-plated brass
- Factor 1 for all metals
- Protection class IP68
- Resistant to magnetic fields
- Large switching distance
- Recessed mountable
- DC 4-wire, 10...55 VDC
- Changeover contact, PNP output
- M12 x 1 male connector

### Wiring Diagram



|      |                       |
|------|-----------------------|
| Type | BI8U-M18M-VP44X-H1141 |
| ID   | 1634877               |

|                   |   |
|-------------------|---|
| Remark to product | Product discontinued.<br>Please use the alternative product 1634945 with an operating voltage of 10...30 VDC. |
|-------------------|---|

| General data                   |   |
|--------------------------------|---|
| Rated switching distance $S_n$ | 8 mm  |
| Mounting conditions            | Flush   |
| Secured operating distance     | $\leq (0.81 \times S_n)$ mm                                   |
| Repeat accuracy                | $\leq 2\%$ of full scale                                      |
| Temperature drift              | $\leq \pm 10\%$   |
|                                | $\leq \pm 15\%$ , $\leq -25\text{ °C}$ v $\geq +70\text{ °C}$ |
| Hysteresis                     | 3...15 %  |

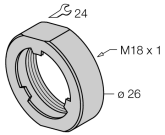
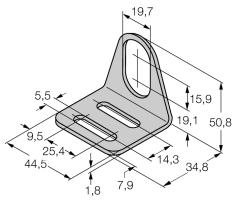
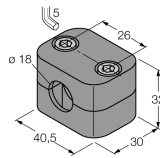
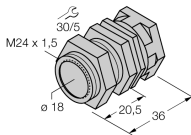
| Electrical data                           |                                    |
|---|------------------------------------|
| Operating voltage                         | 10...55 VDC                        |
| Residual ripple                           | $\leq 10\%$ $U_{is}$               |
| DC rated operational current              | $\leq 200$ mA                      |
| Residual current                          | $\leq 0.1$ mA                      |
| Isolation test voltage                    | $\leq 0.5$ kV                      |
| Short-circuit protection                  | yes/ Cyclic                        |
| Voltage drop at $I_L$                     | $\leq 1.8$ V                       |
| Wire breakage/Reverse polarity protection | yes/ Complete                      |
| Output function                           | 4-wire, Complementary contact, PNP |
| DC field stability                        | 300 mT                             |
| AC field stability                        | 300 mT <sub>SS</sub>               |
| Insulation class                          | □                                  |
| Switching frequency                       | 1.5 kHz                            |

### Functional principle

Inductive sensors are designed for wear-free and contactless detection of metal objects. uprox+ 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.

| Mechanical data                       |   |
|---------------------------------------|---|
| Design                                | Threaded barrel, M18 x 1                  |
| Dimensions                            | 61.5 mm                                   |
| Housing material                      | Metal, CuZn, Chrome-plated                |
| Active area material                  | Plastic, LCP                              |
| Connector housing                     | plastic, PP                               |
| Max. tightening torque of housing nut | 25 Nm                                     |
| Electrical connection                 | Connector, M12 × 1                        |
| Environmental conditions              |   |
| Ambient temperature                   | -30...+85 °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 |
| Switching state                       |   |
|                                       | LED, Yellow                               |

## Accessories

| Type code | Ident no. |  | Dimension drawing   |
|-----------|-----------|--|---|
| PN-M18    | 6905310   | Protective nut for M18 x 1 threaded barrels; material: Stainless steel A2 1.4305 (AISI 303)  |    |
| 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   |   |
| QM-18     | 6945102   | Quick-mount bracket with dead-stop; material: Chrome-plated brass. Male thread M24 x 1.5. Note: The switching distance of the proximity switches may change when using quick-mount brackets. |  |