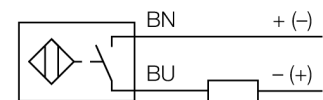


- Threaded barrel, M12 x 1
- Long version
- Chrome-plated brass
- Factor 1 for all metals
- Resistant to magnetic fields
- 2-wire DC, 10...65 VDC
- NO contact
- Cable connection

**Wiring diagram**



**Functional principle**

Inductive sensors detect metal objects contactless and wear-free. Due to the patented multi-coil system, *uprox*®+ sensors have distinct advantages compared to conventional sensors. They excel in largest switching distances, maximum flexibility and operational reliability as well as efficient standardization.

|                                           |                                           |
|-------------------------------------------|-------------------------------------------|
| <b>Type code</b>                          | NI5U-M12E-AD4X                            |
| Ident no.                                 | 4405064                                   |
| <b>Rated operating distance Sn</b>        | 5 mm                                      |
| Mounting condition                        | non-flush                                 |
| Assured sensing range                     | ≤ (0,81 x Sn) mm                          |
| Repeatability                             | ≤ 2 % of full scale                       |
| Temperature drift                         | 10 %                                      |
| Hysteresis                                | 3...20 %                                  |
| Ambient temperature                       | -25...+70 °C                              |
| <b>Operating voltage</b>                  | 10...65VDC                                |
| Residual ripple                           | ≤ 10 % U <sub>ss</sub>                    |
| DC rated operational current              | ≤ 100 mA                                  |
| Residual current                          | ≤ 0.8 mA                                  |
| Rated insulation voltage                  | ≤ 0.5 kV                                  |
| Short-circuit protection                  | yes/ cyclic                               |
| Voltage drop at I <sub>n</sub>            | ≤ 5 V                                     |
| Smallest operating current I <sub>m</sub> | ≤ 3 mA                                    |
| Switching frequency                       | 0.01 kHz                                  |
| <b>Design</b>                             | threaded barrel, M12 x 1                  |
| Dimensions                                | 64 mm                                     |
| Housing material                          | metal, CuZn, chrome-plated                |
| Material active area                      | Plastic, LCP                              |
| End cap                                   | Plastic, EPTR                             |
| Max. tightening torque housing nut        | 10 Nm                                     |
| Connection                                | cable                                     |
| Cable quality                             | 5.2 mm, LiYY, PVC, 2 m                    |
| Cable cross section                       | 2 x 0.34 mm <sup>2</sup>                  |
| 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 |
| <b>Switching state</b>                    | LED yellow                                |

|            |       |
|------------|-------|
| Distance D | 36 mm |
| Distance W | 15 mm |
| Distance T | 36 mm |
| Distance S | 18 mm |
| Distance G | 30 mm |
| Distance N | 10 mm |

**Diameter of the active area B**                       $\varnothing$  12 mm



All non-flush mountable uprox®+ threaded barrel sensors can be screwed to the upper edge of the barrel. Thus safe operation is guaranteed with a reduced switching distance of max. 20 %.

When installed in an aperture plate a distance of X = 50 mm must be observed.

Isolating switching amplifiers can be applied because uprox®+ 2-wire DC sensors work with 8 VDC low operating voltage (limited load current 50 mA).

If the sensors are operated with the Turck remote I/O fieldbus system BL20, wire-break and short-circuit events are immediately detected. For this purpose connect the sensor to the BL20-4DI-NAMUR slice.

### Accessories

| Type code      | Ident no. | Description                                                                                                                                                                                  | Dimension drawing |
|----------------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|
| BL20-4DI-NAMUR | 6827212   | 4 digital inputs acc. to EN 60947-5-6. For NAMUR sensors, de-energized contacts or uprox®+ 2-wire DC sensors.                                                                                |                   |
| BST-12B        | 6947212   | Fixing clamp for threaded barrel devices, with dead-stop; material: PA6                                                                                                                      |                   |
| QM-12          | 6945101   | Quick-mount bracket with dead-stop; material: Chrome-plated brass Male thread M16 x 1. Note: The switching distance of proximity switches can be reduced by the use of quick-mount brackets. |                   |
| MW-12          | 6945003   | Mounting bracket for threaded barrel devices; material: Stainless steel A2 1.4301 (AISI 304)                                                                                                 |                   |
| BSS-12         | 6901321   | Mounting bracket for smooth and threaded barrel devices; material: Polypropylene                                                                                                             |                   |