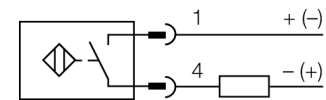


- Threaded barrel, M12 x 1
- Brass, PTFE-coated
- Factor 1 for all metals
- Resistant to magnetic fields
- 2-wire DC, 10...65 VDC
- NO contact
- Cable with male end

Wiring diagram



| | |
|------------------|--------------------------------|
| Type code | BI2U-MT12E-AD4X-0,3-RS4.23/XOR |
| Ident no. | 4405048 |

| | |
|------------------------------------|---------------------|
| Rated operating distance Sn | 2 mm |
| Mounting condition | flush |
| Assured sensing range | ≤ (0,81 x Sn) mm |
| Repeatability | ≤ 2 % of full scale |
| Temperature drift | 10 % |
| Hysteresis | 3...20 % |
| Ambient temperature | 0...+70 °C |

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.

| | |
|---|------------------------|
| Operating voltage | 10...65VDC |
| Residual ripple | ≤ 10 % U _{ss} |
| 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_n | ≤ 5 V |
| Smallest operating current I_m | ≤ 3 mA |
| Switching frequency | 0.01 kHz |

| | |
|---|---|
| Design | threaded barrel, M12 x 1 |
| Dimensions | 64 mm |
| Housing material | metal, CuZn, PTFE-coated |
| Material active area | Plastic, LCP, PTFE-coated |
| End cap | Plastic, EPTR |
| Material coupling nut | metal, CuZn, nickel-plated |
| Max. tightening torque housing nut | 7 Nm |
| Connection | cable with connector, M12 x 1 |
| Cable quality | 5.2 mm, LifXX, PVC, 0.3 m |
| Cable cross section | 2 x 0.34 mm ² |
| 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 |
|------------------------|------------|

| | |
|------------|-------|
| Distance D | 24 mm |
| Distance W | 6 mm |
| Distance T | 36 mm |
| Distance S | 18 mm |
| Distance G | 12 mm |

Diameter of the active area B \varnothing 12 mm



Flush and recessed mounting of all *uprox*®+ threaded barrel sensors. Safe operation is ensured if the sensor is screwed in by half a turn.

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

The sensors can be operated with the Turck remote I/O fieldbus system BL20. If the sensors are combined with a BL20-4DI-NAMUR slice, events of wire-break or short-circuit can be detected immediately.

Accessories

| Type code | Ident no. | Description | Dimension drawing |
|----------------|-----------|---|-------------------|
| BSS-12 | 6901321 | Mounting bracket for smooth and threaded barrel devices; material: Polypropylene | |
| 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. | |