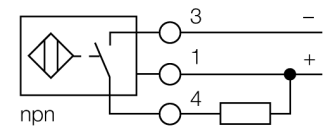


- Threaded barrel, M12 x 1
- Stainless steel, 1.4301
- Factor 1 for all metals
- Protection class IP68
- Resistant to magnetic fields
- Extended temperature range
- High switching frequency
- 3-wire DC, 10...30 VDC
- NO contact, NPN output
- Terminal chamber

Wiring diagram



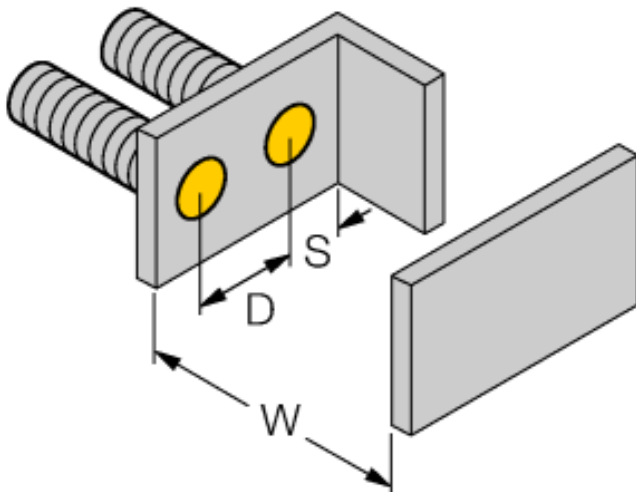
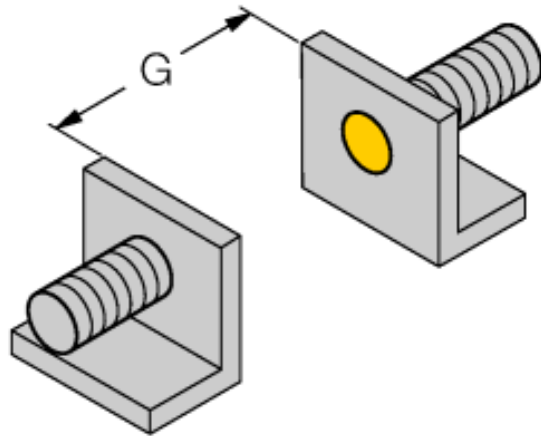
Functional principle

Inductive sensors detect metal objects contactless and wear-free. Due to the patented multicoil system, *uprox®* sensors have distinct advantages over conventional sensors. They detect all metals at the same large switching distance and are resistant to magnetic fields.

| | |
|---------------------------------------------|-------------------------------------------|
| Type code | BI3U-EG12SK-AN6X |
| Ident no. | 1634420 |
| Rated operating distance Sn | 3 mm |
| Mounting condition | flush |
| Assured sensing range | ≤ (0,81 x Sn) mm |
| Repeatability | ≤ 2 % of full scale |
| Temperature drift | 10 % |
| | ≤ ± 15 %, ≤ -25 °C v ≥ +70 °C |
| Hysteresis | 3...15 % |
| Ambient temperature | -30...+85 °C |
| Operating voltage | 10...30VDC |
| Residual ripple | ≤ 10 % U _{ss} |
| DC rated operational current | ≤ 200 mA |
| No-load current I ₀ | ≤ 15 mA |
| Residual current | ≤ 0.1 mA |
| Rated insulation voltage | ≤ 0.5 kV |
| Short-circuit protection | yes/ cyclic |
| Voltage drop at I ₀ | ≤ 1.8 V |
| Wire breakage / Reverse polarity protection | yes/ complete |
| Output function | 3-wire, NO contact, NPN |
| Protection class | ☐ |
| Switching frequency | 3 kHz |
| Design | threaded barrel, M12 x 1 |
| Dimensions | 75 mm |
| Housing material | stainless steel, V2A (1.4301) |
| Terminal chamber cover material | plastic, Ultem |
| Terminal chamber housing material | plastic, plastic, PA12-GF20 |
| Material active area | Plastic, PBT |
| Max. tightening torque housing nut | 10 Nm |
| Connection | terminal chamber |
| Clamping ability | ≤ 2.5 mm ² |
| Cable external diameter | 4.5...8mm |
| 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 |
| Included in scope of supply | cable gland; 2x plastic seals |

| | |
|------------|---------|
| Distance D | 2 x B |
| Distance W | 3 x Sn |
| Distance T | 3 x B |
| Distance S | 1.5 x B |
| Distance G | 6 x Sn |

| | |
|-------------------------------|---------|
| Diameter of the active area B | Ø 12 mm |
|-------------------------------|---------|



Accessories

| Type code | Ident no. | Description | Dimension drawing |
|-----------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|
| 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 | |