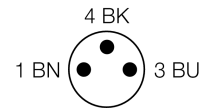
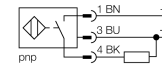


- Threaded barrel, M12 x 1
- Chrome-plated brass
- Factor 1 for all metals
- Protection class IP68
- Resistant to magnetic fields
- High switching distance
- Integrated protection against pre-attenuation
- Little metal-free spaces
- 3-wire DC, 10...30 VDC
- NO contact, PNP output
- Male M8 x 1

| | |
|---|---|
| Type code | NI10U-M12-AP6X-V1131 |
| Ident no. | 1634790 |
| Rated operating distance Sn | 10 mm |
| Mounting condition | non-flush |
| Assured sensing range | $\leq (0,81 \times S_n)$ mm |
| Repeatability | $\leq 2\%$ of full scale |
| Temperature drift | 10 % |
| | $\leq \pm 15\%$, $\leq -25\text{ °C}$ v $\geq +70\text{ °C}$ |
| Hysteresis | 3...15 % |
| Ambient temperature | -30...+85 °C |
| Operating voltage | 10...30VDC |
| Residual ripple | $\leq 10\%$ 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, PNP |
| Protection class | □ |
| Switching frequency | 2 kHz |
| Design | threaded barrel, M12 x 1 |
| Dimensions | 52 mm |
| Housing material | metal, CuZn, chrome-plated |
| Material active area | Plastic, LCP |
| Max. tightening torque housing nut | 10 Nm |
| Connection | male, M8 x 1 |
| 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 |

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 over conventional sensors. They excel in largest switching distances, maximum flexibility and operational reliability as well as efficient standardization.

| | |
|------------|-------|
| Distance D | 48 mm |
| Distance W | 30 mm |
| Distance T | 36 mm |
| Distance S | 18 mm |
| Distance G | 60 mm |
| Distance N | 16 mm |

Diameter of the active area B \varnothing 12 mm



All recessed mountable *uprox⁺* threaded barrel sensors can be embedded to the upper edge of the thread. 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.

Accessories

| Type code | Ident no. | Description | Dimension drawing |
|-----------|-----------|--|-------------------|
| 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. | |
| BST-12B | 6947212 | Fixing clamp for threaded barrel devices, with dead-stop; material: PA6 | |
| 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 | |

Wiring accessories

| Type code | Ident no. | Description | Dimension drawing |
|-------------|-----------|---|-------------------|
| PKG3M-2/TEL | 6625058 | Connection cable, female M8, straight, 3-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see www.turck.com | |