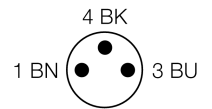
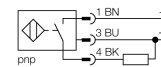


- Threaded barrel, M5 x 0.5
- Stainless steel, 1.4427 SO
- Factor 1 for all metals
- Resistant to magnetic fields
- Large switching distance
- DC 3-wire, 10...30 VDC
- NO contact, PNP output
- M8 x 1 male connector

**Wiring diagram**



|   |   |
|---|---|
| <b>Type code</b>                              | BI1U-EG05-AP6X-V1331                      |
| Ident no.                                     | 4602117                                   |
| <b>Rated switching distance S<sub>n</sub></b> | 1 mm                                      |
| Mounting conditions                           | flush                                     |
| Assured switching distance                    | ≤ (0,81 x S <sub>n</sub> ) mm             |
| Repeatability                                 | ≤ 2 % of full scale                       |
| Temperature drift                             | ≤ ± 10 %                                  |
|   | ≤ ± 20 %, ≤ 0 °C                          |
| Hysteresis                                    | 3...15 %                                  |
| Ambient temperature                           | -25...+70 °C                              |
| <b>Operating voltage</b>                      | 10...30VDC                                |
| Residual ripple                               | ≤ 10 % U <sub>ss</sub>                    |
| DC rated operational current                  | ≤ 100 mA                                  |
| No-load current I <sub>0</sub>                | ≤ 20 mA                                   |
| Residual current                              | ≤ 0.1 mA                                  |
| Rated insulation voltage                      | ≤ 0.5 kV                                  |
| Short-circuit protection                      | yes/ cyclic                               |
| Voltage drop at I <sub>0</sub>                | ≤ 1.8 V                                   |
| Wire breakage / Reverse polarity protection   | yes/ complete                             |
| Output function                               | 3-wire, NO contact, PNP                   |
| Switching frequency                           | 2 kHz                                     |
| <b>Construction</b>                           | threaded barrel, M5 x 0.5                 |
| Dimensions                                    | 42.7 mm                                   |
| Housing material                              | stainless steel, 1.4427 SO                |
| Material active area                          | plastic, PA                               |
| Max. tightening torque housing nut            | 5 Nm                                      |
| Connection                                    | male, M8 x 1                              |
| Vibration resistance                          | 55 Hz (1 mm)                              |
| Shock resistance                              | 30 g (11 ms)                              |
| IP Rating                                     | IP67                                      |
| MTTF  | 874 years acc. to SN 29500 (Ed. 99) 40 °C |
| <b>Switching state</b>                        | LED yellow                                |

**Functional principle**

Inductive sensors detect metal objects contactless and wear-free. *uprox®3* sensors have significant advantages due to their patented ferrite-coreless multicoil system. They excel in largest switching distances, maximum flexibility and operational reliability as well as efficient standardization.

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|            |         |
|------------|---------|
| 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  |

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**Diameter of the active area B**                       $\varnothing$  5 mm

