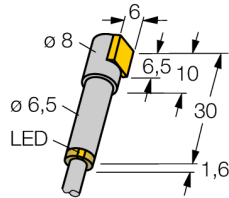


# Inductive sensor BI1,5-HS865-AN6X

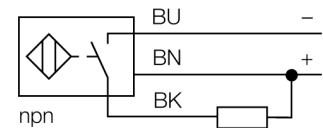
**TURCK**

Industrial  
Automation



- Smooth barrel, Ø 6.5 mm
- Active face, lateral
- Chrome-plated brass
- DC 3-wire, 10...30 VDC
- NO contact, NPN output
- Cable connection

## Wiring diagram



## Functional principle

Inductive sensors detect metal objects contactless and wear-free. For this purpose they use a high-frequency electromagnetic AC field that interacts with the target. The sensors hosting a ferrite core coil generate the AC field through an LC resonant circuit.

|   |   |
|---|---|
| <b>Type code</b>                            | BI1,5-HS865-AN6X                                    |
| Ident no.                                   | 4604301   |
| <b>Rated operating distance Sn</b>          | 1.5 mm  |
| Mounting condition                          | flush   |
| Assured sensing range                       | ≤ (0,81 x Sn) mm                                    |
| Correction factors                          | St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4 |
| Repeatability                               | ≤ 2 % of full scale                                 |
| Temperaturdrift                             | 10 %  |
| 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                | ≤ 150 mA  |
| No-load current I <sub>0</sub>              | ≤ 15 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, NPN                             |
| Switching frequency                         | 3 kHz   |
| <b>Design</b>                               | smooth barrel, 6.5 mm                               |
| Dimensions                                  | 32 mm   |
| Housing material                            | Metal, CuZn, chrome-plated                          |
| Material active face                        | Plastic, PA   |
| End cap                                     | Plastic, PP   |
| Connection                                  | cable   |
| Cable quality                               | 4 mm, LifYY-11Y, PUR, 2 m                           |
| Cable cross section                         | 3 x 0.25 mm <sup>2</sup>                            |
| Vibration resistance                        | 55 Hz (1 mm)  |
| Shock resistance                            | 30 g (11 ms)  |
| Protection class                            | IP67  |
| MTTF  | 2283 years acc. to SN 29500 (Ed. 99) 40 °C          |
| <b>Switching state</b>                      | ● yellow  |