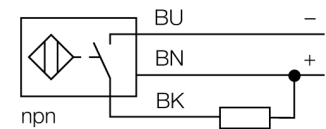


- Rectangular, height 20 mm
- Active face on top
- Plastic, PBT-GF30-V0
- Factor 1 for all metals
- Resistant to magnetic fields
- Extended temperature range
- High switching frequency
- 3-wire DC, 10...30 VDC
- NO contact, NPN output
- Cable connection

**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.

|   |   |
|---|---|
| <b>Type code</b>                            | BI15U-Q20-AN6X2                           |
| Ident no.                                   | 1608810                                   |
| <b>Rated operating distance Sn</b>          | 15 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                              |
| <b>Operating voltage</b>                    | 10...30VDC                                |
| Residual ripple                             | ≤ 10 % U <sub>ss</sub>                    |
| DC rated operational current                | ≤ 200 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                   |
| Protection class                            | ☐   |
| Switching frequency                         | 0.25 kHz                                  |
| <b>Design</b>                               | rectangular, Q20                          |
| Dimensions                                  | 68 x 40 x 20 mm                           |
| Housing material                            | plastic, PBT                              |
| Connection                                  | cable                                     |
| Cable quality                               | 5.2 mm, LifYY-11Y, PUR, 2 m               |
| Cable cross section                         | 3 x 0.34 mm <sup>2</sup>                  |
| Vibration resistance                        | 55 Hz (1 mm)                              |
| Shock resistance                            | 30 g (11 ms)                              |
| Protection class                            | IP67                                      |
| MTTF  | 874 years acc. to SN 29500 (Ed. 99) 40 °C |
| <b>Power-on indication</b>                  | LED green                                 |
| Switching state                             | LED yellow                                |

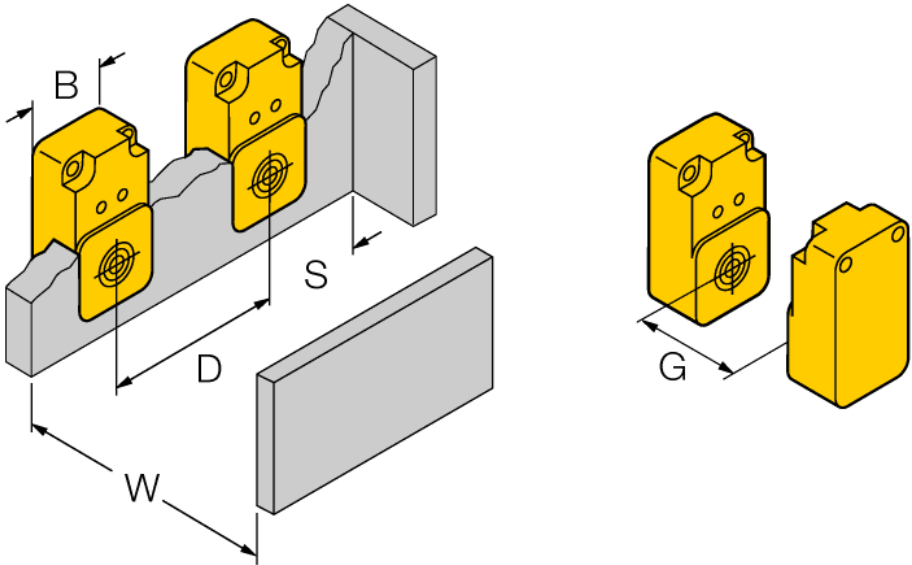
---

|            |         |
|------------|---------|
| Distance D | 1.5 x B |
| Distance W | 3 x Sn  |
| Distance S | 1 x B   |
| Distance G | 6 x Sn  |

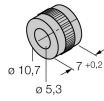
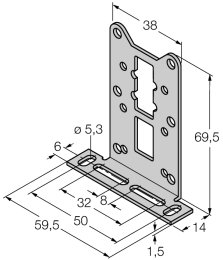
---

|                            |       |
|----------------------------|-------|
| Width of the active face B | 40 mm |
|----------------------------|-------|

---



**Accessories**

| Type code           | Ident no. | Description   | Dimension drawing   |
|---------------------|-----------|---|---|
| MH-Q20MONTAGEHÜLSEN | 6950010   | Mounted with active face downwards, for Q20                     |  |
| MW-Q14/Q20          | 6945006   | Mounting bracket for rectangular Q14 or Q20; material VA 1.4301 |  |