

**Overview**

- Outstanding reliability and unrivalled immunity against ambient light
- Extra range - best-in-class
- qTeach - tamper-proof, simple teach-in with ferromagnetic tool
- Robust housing with stainless steel spacer sleeves



Picture similar



**Technical data**

**General data**

|                                     |                           |
|-------------------------------------|---------------------------|
| Type                                | Background suppression    |
| Light source                        | Pulsed red laser diode    |
| Sensing distance Tw                 | 20 ... 175 mm             |
| Sensing range Tb                    | 3 ... 192 mm              |
| Smallest object recognizable typ.   | 0,5 mm at 100 mm          |
| Alignment / soiled lens indicator   | Flashing output indicator |
| Power on indication                 | LED green                 |
| Output indicator                    | LED yellow                |
| Sensing distance adjustment         | qTeach                    |
| Laser class                         | 1                         |
| Distance to focus                   | 160 mm                    |
| Wave length                         | 680 nm                    |
| Suppression of reciprocal influence | Yes                       |
| Beam type                           | Point                     |
| Alignment optical axis              | < 1,5°                    |

**Electrical data**

|                              |           |
|------------------------------|-----------|
| Response time / release time | ≤ 0,5 ms  |
| Jitter                       | ≤ 0,12 ms |

**Electrical data**

|                                    |                      |
|------------------------------------|----------------------|
| Voltage supply range +Vs           | 10 ... 30 VDC        |
| Current consumption max. (no load) | 20 mA (@ 10 VDC)     |
| Current consumption typ.           | 10 mA (@ 24 VDC)     |
| Voltage drop Vd                    | < 2 VDC              |
| Output function                    | Light / dark operate |
| Output circuit                     | NPN complementary    |
| Output current                     | < 50 mA              |
| Short circuit protection           | Yes                  |
| Reverse polarity protection        | Yes                  |

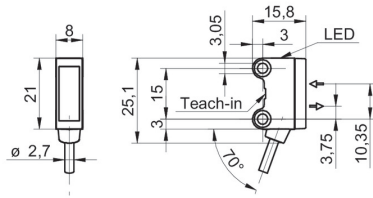
**Mechanical data**

|                       |                                    |
|-----------------------|------------------------------------|
| Width / diameter      | 8 mm                               |
| Height / length       | 25,1 mm                            |
| Depth                 | 15,8 mm                            |
| Type                  | Rectangular                        |
| Mechanical mounting   | Sleeve smooth (stainless steel)    |
| Housing material      | Plastic (ASA, PMMA)                |
| Front (optics)        | PMMA                               |
| Connection types      | Cable 4 pin, 2 m                   |
| Cable characteristics | PVC / PVC 4 x 0,08 mm <sup>2</sup> |

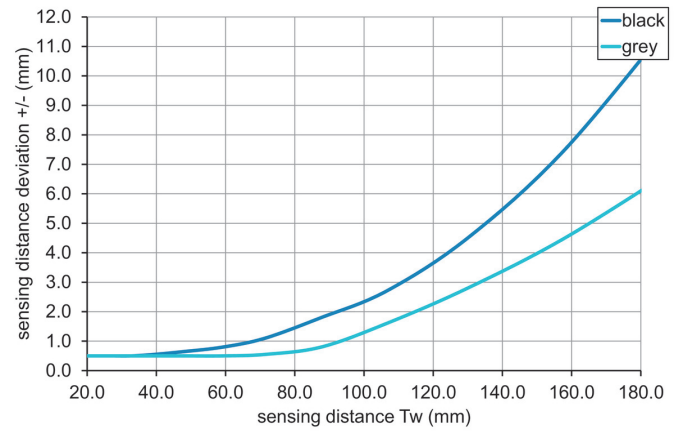
**Ambient conditions**

|                       |                |
|-----------------------|----------------|
| Protection class      | IP 67          |
| Operating temperature | -20 ... +50 °C |

**Dimension drawing**



**Sensing distance diagram**

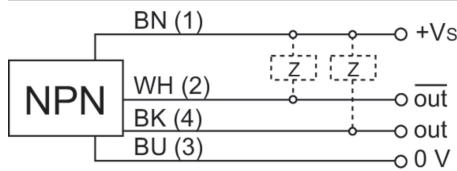


**Laser warning**

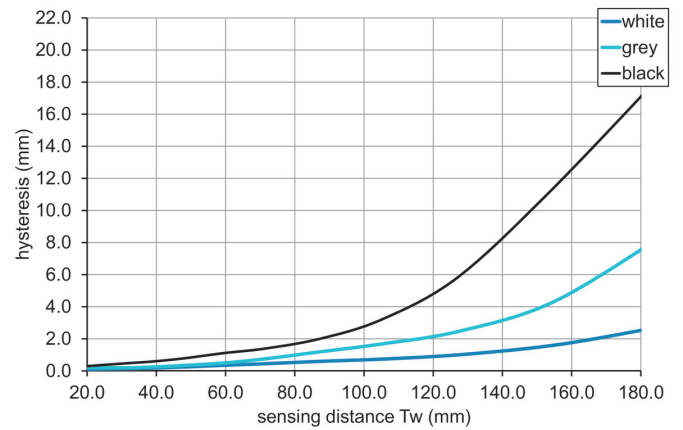
**CLASS 1 LASER PRODUCT**

IEC 60825-1/2014  
Complies with 21 CFR 1040.10 and 1040.11 except for conformance with IEC 60825-1 Ed. 3., as described in Laser Notice No. 56, dated May 8, 2019

**Connection diagram**



**Hysteresis curve**



**Beam characteristic (typically)**

