

## O200.GL-NV1T.72CV/F040\_H006

Diffuse sensors with background suppression - miniature

Article number: 11231142

### Overview

- Outstanding reliability and unrivalled immunity against ambient light
- Focused laser beam for small objects or gaps
- qTeach - tamper-proof, simple teach-in with ferromagnetic tool
- Quick mounting by means of M3 threaded bushes made of stainless steel



Picture similar



### Technical data

#### General data

|                                     |                           |
|-------------------------------------|---------------------------|
| Type                                | Background suppression    |
| Sensing distance Tw                 | 20 ... 120 mm             |
| Sensing range Tb                    | 3 ... 132 mm              |
| Smallest object recognizable typ.   | 0.05 mm at 40 mm          |
| Power on indication                 | LED green                 |
| Alignment / soiled lens indicator   | Flashing output indicator |
| Output indicator                    | LED yellow                |
| Sensing distance adjustment         | qTeach                    |
| Distance to focus                   | 40 mm                     |
| Suppression of reciprocal influence | Yes                       |
| Beam type                           | Point                     |
| Alignment optical axis              | < 1,5°                    |

#### Light Source

|              |                        |
|--------------|------------------------|
| Light source | Pulsed red laser diode |
| Laser class  | 1                      |
| Wave length  | 680 nm                 |

#### 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                  |

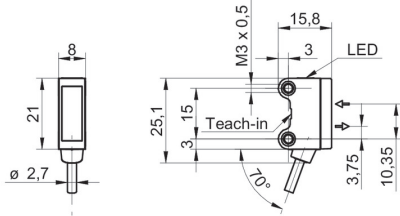
#### Mechanical data

|                       |                                       |
|-----------------------|---------------------------------------|
| Width / diameter      | 8 mm                                  |
| Height / length       | 25.1 mm                               |
| Depth                 | 15.8 mm                               |
| Design                | Rectangular                           |
| Mechanical mounting   | Threaded sleeves M3 (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>    |

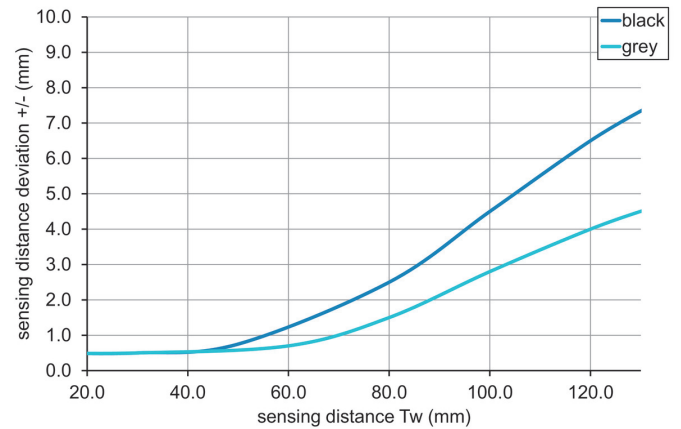
#### Ambient conditions

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

#### Dimension drawing



#### Sensing distance diagram

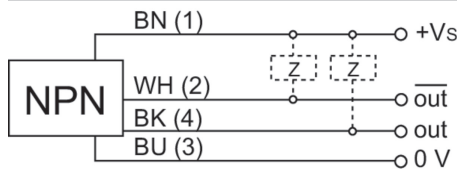


#### Laser warning

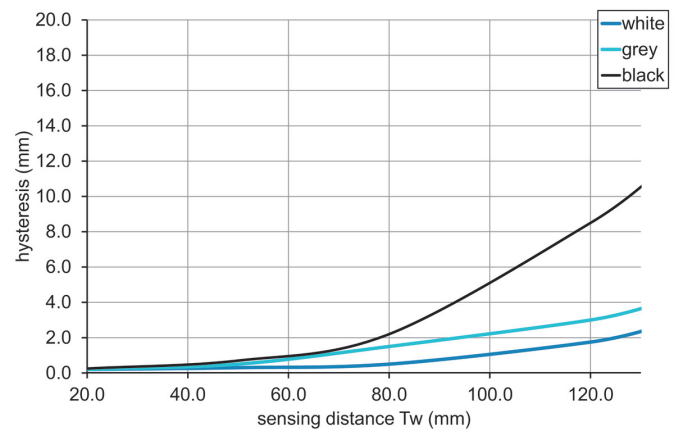
### CLASS 1 LASER PRODUCT

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)

