

# O200.GR.F-GW1J.72CV/E026\_H006

Diffuse sensors with background suppression - miniature

Article number: 11210568

## Overview

- Outstanding reliability and unrivalled immunity against ambient light
- V-optics for detection of shiny or transparent objects
- Manipulation-proof, simple teach-in via qTeach or line teach
- IO-Link for extended parameterization options and additional diagnostic data
- Quick mounting by means of M3 threaded bushes made of stainless steel



Picture similar



## Technical data

### General data

|                                     |                           |
|-------------------------------------|---------------------------|
| Type                                | Background suppression    |
| Version                             | Fixed focus               |
| Light source                        | Pulsed red LED            |
| Sensing distance Tw                 | 8 ... 13,5 mm             |
| Sensing range Tb                    | 3 ... 15 mm               |
| Smallest object recognizable typ.   | 0,05 mm at 10 mm          |
| Alignment / soiled lens indicator   | Flashing output indicator |
| Power on indication                 | LED green                 |
| Output indicator                    | LED yellow                |
| Sensing distance adjustment         | Teach-in and IO-Link      |
| Wave length                         | 644 nm                    |
| Suppression of reciprocal influence | Yes                       |
| Alignment optical axis              | < 1,5°                    |

### Electrical data

|                                    |                             |
|------------------------------------|-----------------------------|
| Response time / release time       | < 0,25 ms (High Speed Mode) |
| Voltage supply range +Vs           | 10 ... 30 VDC               |
| Current consumption max. (no load) | 40 mA (@ 10 VDC)            |
| Current consumption typ.           | 16 mA (@ 24 VDC)            |
| Voltage drop Vd                    | < 2 VDC                     |

### Electrical data

|                             |                      |
|-----------------------------|----------------------|
| Output function             | Light / dark operate |
| Output circuit              | Push-pull            |
| Output current              | < 50 mA              |
| Short circuit protection    | Yes                  |
| Reverse polarity protection | Yes                  |

### Communication interface

|                        |   |
|------------------------|---|
| Baud rate              | 230,4 kBaud (COM 3)   |
| Adjustable parameters  | Switching point<br>Switching hysteresis<br>Time filters<br>LED status indicators<br>Output logic<br>Counter<br>Operation mode<br>Deactivate the sensor element<br>Find Me function<br>Teach-in mode |
| IO-Link port type      | Class A   |
| Process data length    | 32 Bit  |
| Process data structure | Bit 0 = SSC1 (presence)<br>Bit 2 = quality<br>Bit 3 = alarm<br>Bit 5 = SSC4 (counter)<br>Bit 16-31 = 16 Bit measurement   |
| Interface              | IO-Link V1.1  |

## Technical data

### Communication interface

|                 |                    |
|-----------------|--------------------|
| Additional data | Excess gain        |
|                 | Operating cycles   |
|                 | Device temperature |
| Cycle time      | ≥ 0,6 ms           |

### Mechanical data

|                  |             |
|------------------|-------------|
| Width / diameter | 8 mm        |
| Height / length  | 25,1 mm     |
| Depth            | 14,1 mm     |
| Type             | Rectangular |

### Mechanical data

|                       |                                       |
|-----------------------|---------------------------------------|
| 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>    |

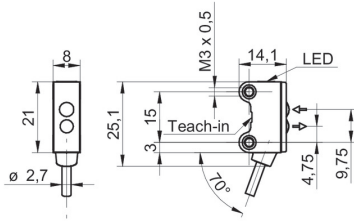
### Ambient conditions

|                       |                |
|-----------------------|----------------|
| Protection class      | IP 67          |
| Operating temperature | -25 ... +50 °C |

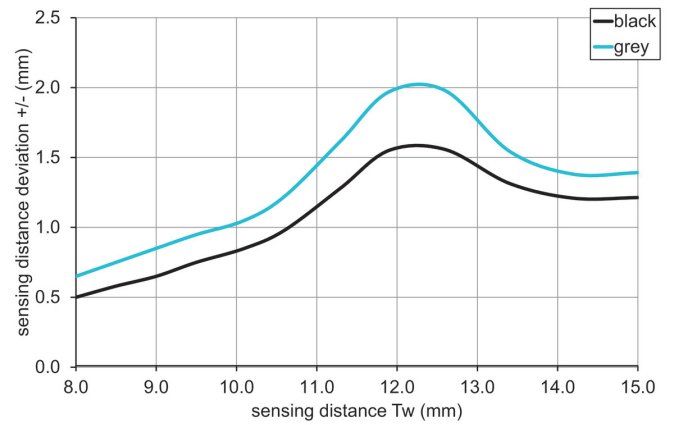
## Remarks

- qTeach

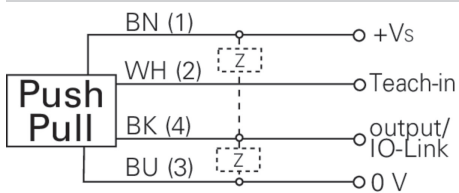
## Dimension drawing



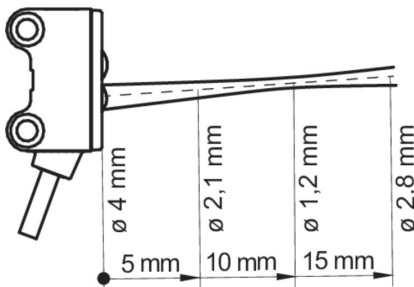
## Sensing distance diagram



## Connection diagram



## Beam characteristic (typically)



## Hysteresis curve

