Baumer
Passion for Sensors

Diffuse sensors with background suppression

# O200.GL-GW2I.72NV/A014_F040

Diffuse sensors with background suppression - miniature

Article number: 11229213

## Overview

- Outstanding reliability and unrivalled immunity against ambient light
- Focused laser beam for small objects or gaps
- IO-Link interface independent of the switching output (Dual Channel)
- Extended parameterization options and additional diagnostic data
- Robust housing with stainless steel spacer sleeves


*Picture similar*

## Technical data

| | |
|---|---|
| **General data** | |
| Type | Background suppression |
| Version | IO-Link dual channel |
| 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 | IO-Link |
| 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 | < 0.4 ms (High Speed Mode) |
| Jitter | < 0.21 ms (High Speed Mode) |
| 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 |

| | |
|---|---|
| **Electrical data** | |
| Output circuit | Push-pull |
| Output current | 50 mA (< 40 °C), sum of all outputs<br>20 mA (< 50 °C), sum of all outputs |
| Short circuit protection | Yes |
| Reverse polarity protection | Yes |
| **Communication interface** | |
| Interface | IO-Link V1.1 |
| IO-Link port type | Class A |
| Baud rate | 38.4 kBaud (COM 2) |
| Cycle time | ≥ 2.7 ms |
| 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 |
| Adjustable parameters | Switching point<br>Switching hysteresis<br>Time filters<br>LED status indicators<br>Output logic<br>Output circuit<br>Counter<br>Operation mode<br>Deactivate the sensor element<br>Find Me function<br>Teach-in mode |
| Additional data | Excess gain<br>Operating cycles<br>Device temperature |
| **Mechanical data** | |
| Width / diameter | 8 mm |
| Height / length | 25.1 mm |

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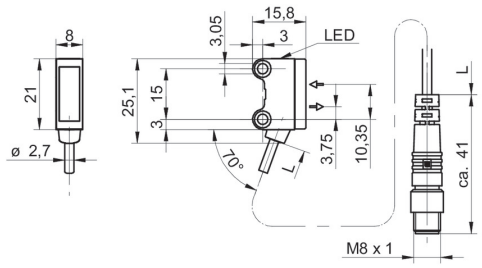
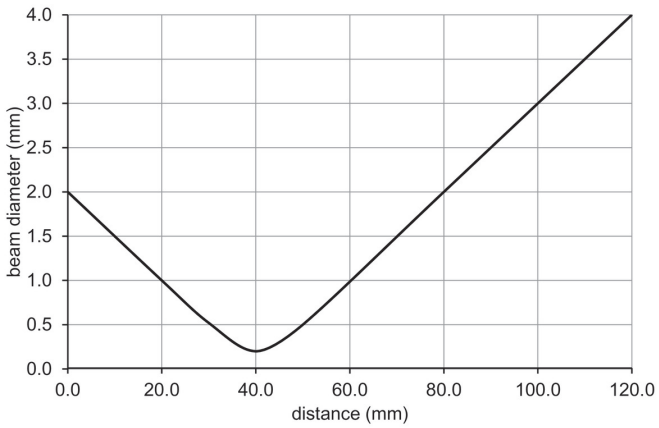
| Mechanical data | |
|---|---|
| Depth | 15.8 mm |
| Design | Rectangular |
| Mechanical mounting | Sleeve smooth (stainless steel) |
| Housing material | Plastic (ASA, PMMA) |
| Front (optics) | PMMA |

| Mechanical data | |
|---|---|
| Connection types | Flylead connector M8 4 pin, L=200 mm |
| Cable characteristics | PVC / PVC 4 x 0.08 mm² |
| **Ambient conditions** | |
| Protection class | IP 67 |
| Operating temperature | -20 … +50 °C |

## Dimension drawing




## Beam characteristic (typically)

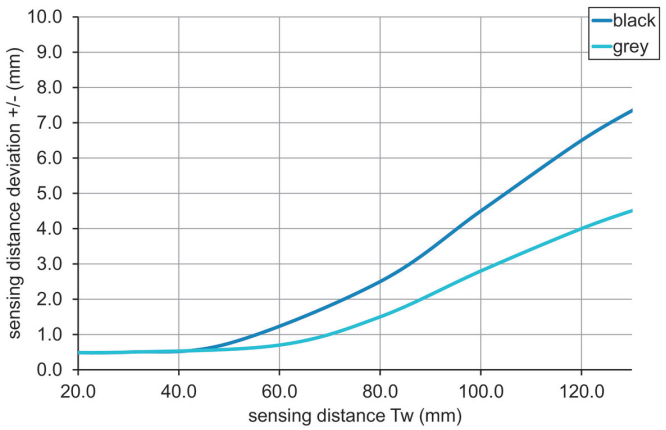



## Laser warning

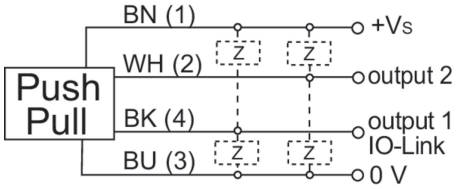
**CLASS 1 LASER PRODUCT**

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

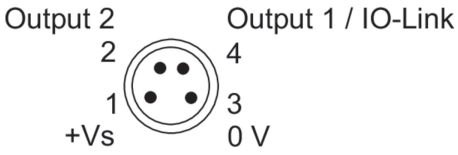
## Sensing distance diagram




## Connection diagram




## Pin assignment



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## Hysteresis curve