

## 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
Light source	Pulsed red laser diode
Sensing distance Tw	20 ... 120 mm
Sensing range Tb	3 ... 132 mm
Smallest object recognizable typ.	0,05 mm at 40 mm
Alignment / soiled lens indicator	Flashing output indicator
Power on indication	LED green
Output indicator	LED yellow
Sensing distance adjustment	IO-Link
Laser class	1
Distance to focus	40 mm
Wave length	680 nm
Suppression of reciprocal influence	Yes
Beam type	Point
Alignment optical axis	< 1,5°

### Electrical data

Response time / release time	< 0,4 ms (High Speed Mode)
Jitter	< 0,21 ms (High Speed Mode)
Voltage supply range +Vs	10 ... 30 VDC

### Electrical data

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	Push-pull
Output current	< 50 mA (< 40 °C), sum of all outputs < 20 mA (< 50 °C), sum of all outputs
Short circuit protection	Yes
Reverse polarity protection	Yes

### Communication interface

Baud rate	38,4 kBaud (COM 2)
Adjustable parameters	Switching point Switching hysteresis Time filters LED status indicators Output logic Output circuit Counter Operation mode Deactivate the sensor element Find Me function Teach-in mode
IO-Link port type	Class A
Process data length	32 Bit

## Technical data

### Communication interface

Process data structure	Bit 0 = SSC1 (presence) Bit 2 = quality Bit 3 = alarm Bit 5 = SSC4 (counter) Bit 16-31 = 16 Bit measurement
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Interface	IO-Link V1.1
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Additional data	Excess gain Operating cycles Device temperature
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Cycle time	≥ 2,7 ms
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### Mechanical data

Width / diameter	8 mm
Height / length	25,1 mm

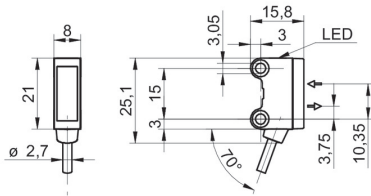
### Mechanical data

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>

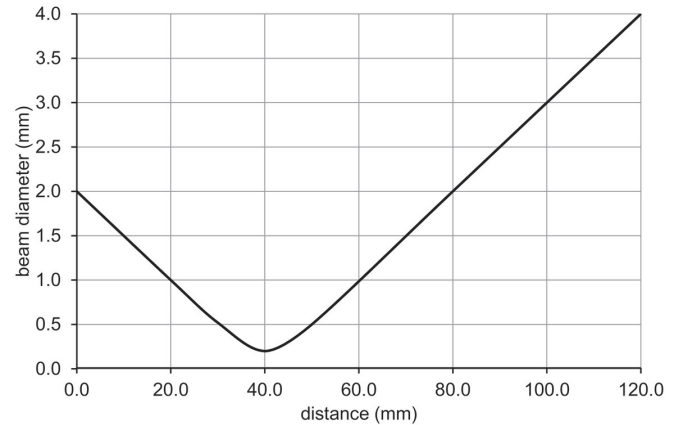
### Ambient conditions

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

## Dimension drawing



## Beam characteristic (typically)

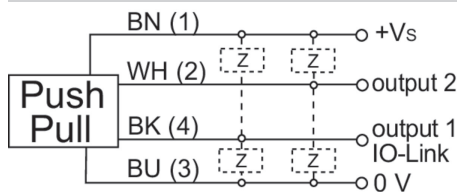


## Laser warning

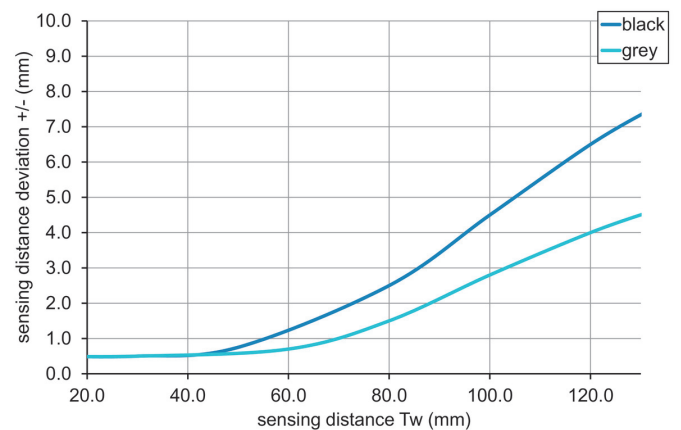
**CLASS 1 LASER  
PRODUCT**

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

## Connection diagram



## Sensing distance diagram



**Hysteresis curve**

