

**Overview**

- Outstanding reliability and unrivalled immunity against ambient light
- Extra range - best-in-class
- 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		Electrical data	
Type	Background suppression	Current consumption max. (no load)	20 mA (@ 10 VDC)
Light source	Pulsed red laser diode	Current consumption typ.	10 mA (@ 24 VDC)
Sensing distance Tw	20 ... 175 mm	Voltage drop Vd	< 2 VDC
Sensing range Tb	3 ... 192 mm	Output function	Light / dark operate
Smallest object recognizable typ.	0,5 mm at 100 mm	Output circuit	Push-pull
Alignment / soiled lens indicator	Flashing output indicator	Output current	< 50 mA
Power on indication	LED green	Short circuit protection	Yes
Output indicator	LED yellow	Reverse polarity protection	Yes
Sensing distance adjustment	Teach-in and IO-Link	Communication interface	
Laser class	1	Baud rate	230,4 kBaud (COM 3)
Distance to focus	160 mm	Adjustable parameters	Switching point Switching hysteresis Time filters LED status indicators Output logic Counter Operation mode Deactivate the sensor element Find Me function Teach-in mode
Wave length	680 nm	IO-Link port type	Class A
Suppression of reciprocal influence	Yes	Process data length	32 Bit
Beam type	Point		
Alignment optical axis	< 1,5°		
Electrical data			
Response time / release time	≤ 0,25 ms (High Speed Mode)		
Jitter	≤ 0,06 ms (High Speed Mode)		
Voltage supply range +Vs	10 ... 30 VDC		

2021-05-06 The product features and technical data specified do not express or imply any warranty. Technical modifications subject to change.

## 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	≥ 0,6 ms
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### Mechanical data

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

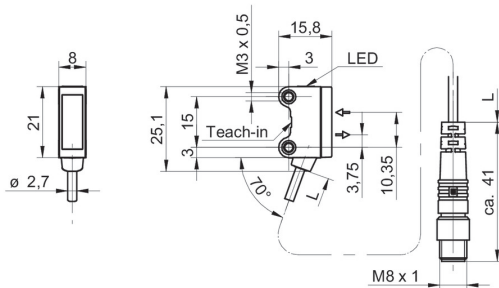
### Mechanical data

Depth	15,8 mm
Type	Rectangular
Mechanical mounting	Threaded sleeves M3 (stainless steel)
Housing material	Plastic (ASA, PMMA)
Front (optics)	PMMA
Connection types	Flylead connector M8 4 pin, L=200 mm
Cable characteristics	PVC / PVC 4 x 0,08 mm <sup>2</sup>

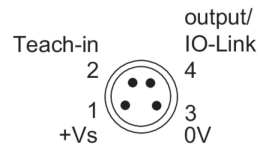
### Ambient conditions

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

## Dimension drawing



## Pin assignment

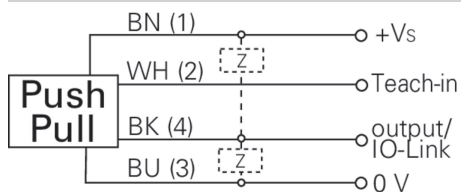


## Laser warning

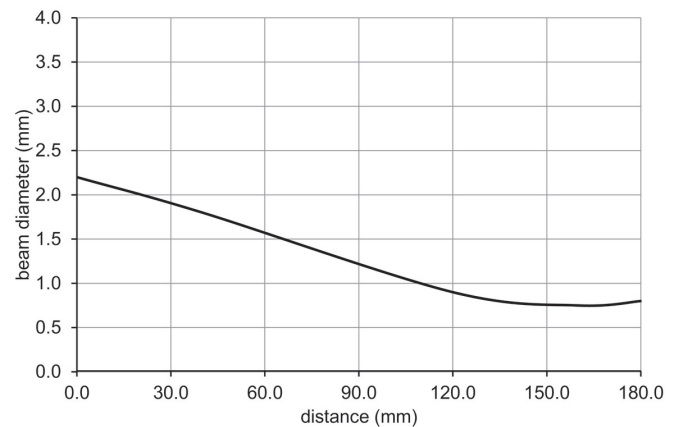
# CLASS 1 LASER PRODUCT

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

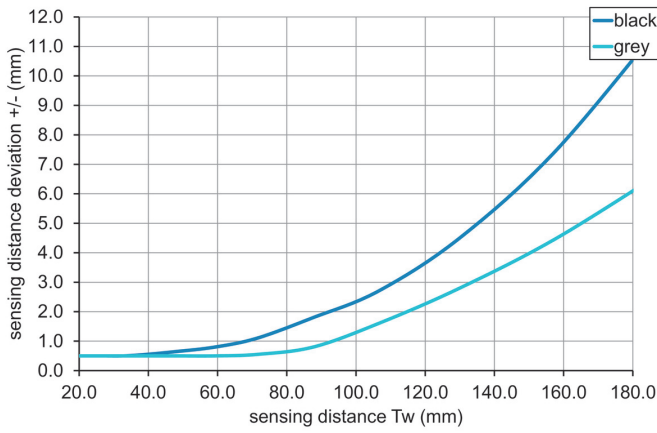
## Connection diagram



## Beam characteristic (typically)



**Sensing distance diagram**



**Hysteresis curve**

