

### Overview

- Outstanding reliability and unrivalled immunity against ambient light
- Focused laser beam for small objects or gaps
- Manipulation-proof, simple teach-in via qTeach or line teach
- IO-Link for extended parameterization options and additional diagnostic data
- Robust housing with stainless steel spacer sleeves



Picture similar



### Technical data

General data		Electrical data	
Type	Background suppression	Output current	50 mA
Sensing distance Tw	20 ... 120 mm	Short circuit protection	Yes
Sensing range Tb	3 ... 132 mm	Reverse polarity protection	Yes
Smallest object recognizable typ.	0.05 mm at 40 mm	Communication interface	
Power on indication	LED green	Interface	IO-Link V1.1
Alignment / soiled lens indicator	Flashing output indicator	IO-Link port type	Class A
Output indicator	LED yellow	Baud rate	230,4 kBaud (COM 3)
Sensing distance adjustment	Teach-in and IO-Link	Cycle time	≥ 0.6 ms
Distance to focus	40 mm	Process data length	32 Bit
Suppression of reciprocal influence	Yes	Process data structure	Bit 0 = SSC1 (presence) Bit 2 = quality Bit 3 = alarm Bit 5 = SSC4 (counter) Bit 16-31 = 16 Bit measurement
Beam type	Point	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
Alignment optical axis	< 1,5°	Additional data	Excess gain Operating cycles Device temperature
Light Source		Mechanical data	
Light source	Pulsed red laser diode	Width / diameter	8 mm
Laser class	1	Height / length	25.1 mm
Wave length	680 nm	Depth	15.8 mm
Electrical data		Design	Rectangular
Response time / release time	< 0.25 ms (High Speed Mode)		
Jitter	< 0.06 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		
Output circuit	Push-pull		

**Technical data**

**Mechanical data**

Mechanical mounting	Sleeve smooth (stainless steel)
Housing material	Plastic (ASA, PMMA)
Front (optics)	PMMA
Connection types	Flylead connector M8 4 pin, L=200 mm

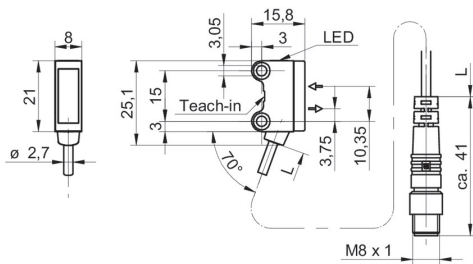
**Mechanical data**

Cable characteristics	PVC / PVC 4 x 0.08 mm <sup>2</sup>
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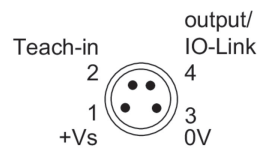
**Ambient conditions**

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

**Dimension drawing**



**Pin assignment**



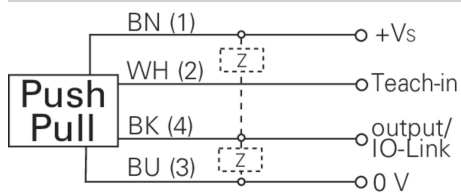
**Laser warning**

**CLASS 1 LASER  
PRODUCT**

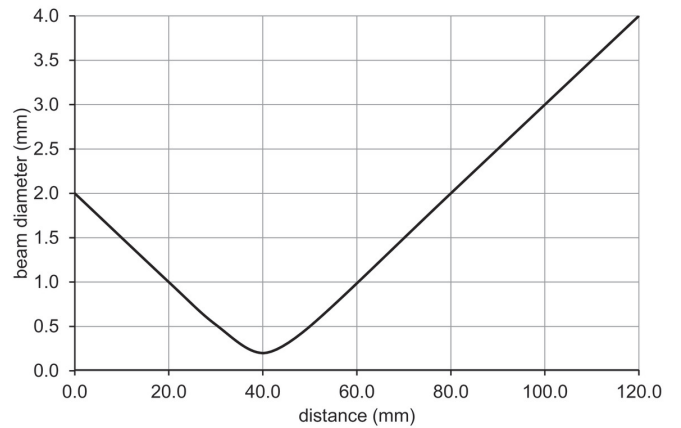
IEC 60825-1/2014

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

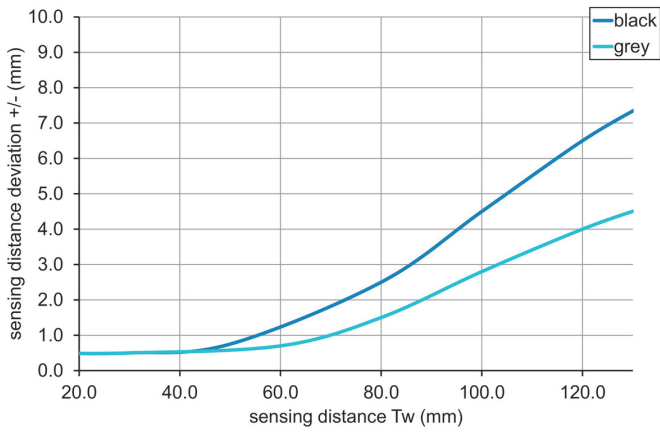
**Connection diagram**



**Beam characteristic (typically)**



**Sensing distance diagram**



**Hysteresis curve**

