

**Overview**

- Extended functional reserve capacities for maximum reliability
- Object detection through smallest holes and gaps without blind area thanks to single-lens optics
- Parallel laser beam for uniform detection over the measuring range
- 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	Retro-reflective sensor	Current consumption max. (no load)	20 mA (@ 10 VDC)
Version	Single lens optics	Current consumption typ.	10 mA (@ 24 VDC)
Light source	Pulsed red laser diode	Voltage drop Vd	< 2 VDC
Actual range Sb	0,8 m	Output function	Light / dark operate
Nominal range Sn	1,2 m	Output circuit	Push-pull
Smallest object recognizable typ.	3 mm at 500 mm	Output current	< 50 mA
Polarization filter	Yes	Short circuit protection	Yes
Alignment / soiled lens indicator	Flashing output indicator	Reverse polarity protection	Yes
Output indicator	LED yellow	Communication interface	
Power on indication	LED green	Baud rate	230,4 kBaud (COM 3)
Sensitivity adjustment	Teach-in and IO-Link	Adjustable parameters	Switching point Time filters LED status indicators Output logic Counter Operation mode Deactivate the sensor element Find Me function Teach-in mode
Laser class	1	IO-Link port type	Class A
Distance to focus	Parallel beam	Process data length	32 Bit
Wave length	680 nm	Process data structure	Bit 0 = SSC1 (presence) Bit 2 = quality Bit 3 = alarm Bit 5 = SSC4 (counter) Bit 16-31 = 16 Bit measurement
Suppression of reciprocal influence	Yes		
Alignment optical axis	< 1,5°		
Electrical data			
Response time / release time	< 0,05 ms (High Speed Mode)		
Jitter	< 0,02 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**

Interface	IO-Link V1.1
Additional data	Signal strength Excess gain Operating cycles Device temperature
Cycle time	≥ 0,6 ms

**Mechanical data**

Width / diameter	8 mm
Height / length	25,1 mm
Depth	15,8 mm

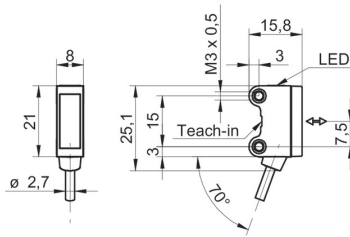
**Mechanical data**

Type	Rectangular
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>

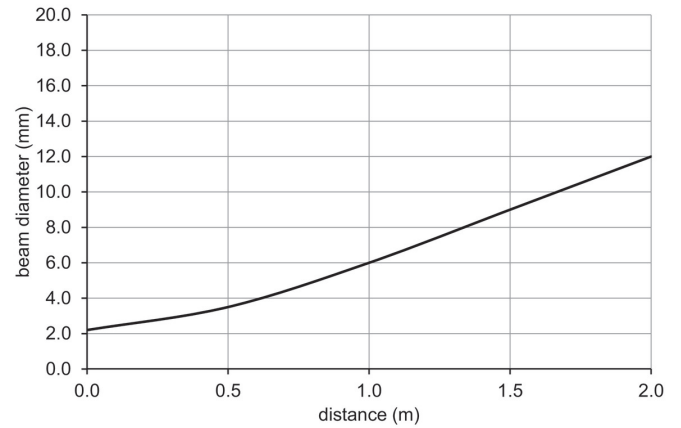
**Ambient conditions**

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

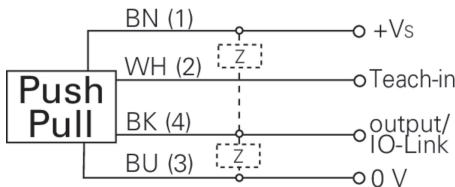
**Dimension drawing**



**Beam characteristic (typically)**



**Connection diagram**



**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

**Excess gain curve**

