

**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
- 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		Electrical data	
Type	Retro-reflective sensor	Current consumption max. (no load)	20 mA (@ 10 VDC)
Version	Single lens optics IO-Link dual channel	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 (< 40 °C), sum of all outputs < 20 mA (< 50 °C), sum of all outputs
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	38,4 kBaud (COM 2)
Sensitivity adjustment	IO-Link	Adjustable parameters	Switching point Time filters LED status indicators Output logic Output circuit 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		
Suppression of reciprocal influence	Yes		
Alignment optical axis	< 1,5°		
Electrical data			
Response time / release time	< 0,2 ms (High Speed Mode)		
Jitter	< 0,18 ms (High Speed Mode)		
Voltage supply range +Vs	10 ... 30 VDC		

**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	Signal strength 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
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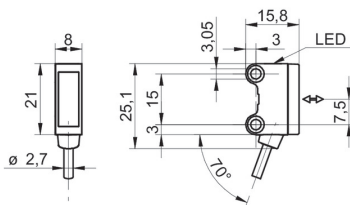
**Mechanical data**

Height / length	25,1 mm
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>

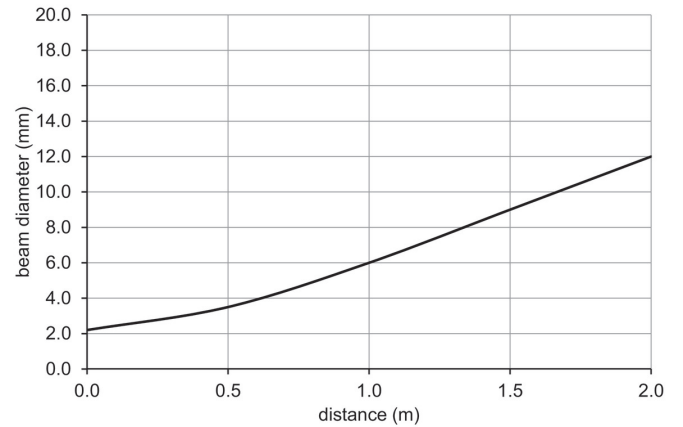
**Ambient conditions**

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

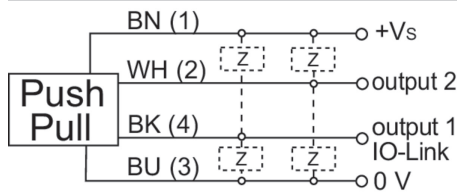
**Dimension drawing**



**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**

