

**Overview**

- Extended functional reserve capacities for maximum reliability
- Long-term stable detection of transparent objects thanks to compensation of environmental influences
- 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	Short circuit protection	Yes
Version	Transparency object detection	Reverse polarity protection	Yes
Light source	Pulsed red laser diode	Communication interface	
Actual range Sb	0.8 m	Baud rate	230,4 kBaud (COM 3)
Nominal range Sn	1.2 m	Adjustable parameters	Switching point Switching hysteresis Time filters LED status indicators Output logic Counter Deactivate the sensor element Find Me function Teach-in mode Background tracking
Polarization filter	Yes	IO-Link port type	Class A
Minimal signal attenuation	5 %	Process data length	32 Bit
Alignment / soiled lens indicator	Flashing output indicator	Process data structure	Bit 0 = SSC1 (presence) Bit 2 = quality Bit 3 = alarm Bit 5 = SSC4 (counter) Bit 16-31 = 16 Bit measurement
Output indicator	LED yellow	Interface	IO-Link V1.1
Power on indication	LED green	Additional data	Signal attenuation Excess gain Operating cycles Device temperature
Sensitivity adjustment	Teach-in and IO-Link	Cycle time	≥ 0.6 ms
Laser class	1	Mechanical data	
Distance to focus	Parallel beam	Width / diameter	8 mm
Wave length	680 nm	Height / length	25.1 mm
Suppression of reciprocal influence	Yes	Depth	15.8 mm
Alignment optical axis	< 1,5°	Design	Rectangular
Electrical data		Mechanical mounting	Threaded sleeves M3 (stainless steel)
Response time / release time	< 0.25 ms		
Jitter	< 0.06 ms		
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		
Output current	50 mA		

The product features and technical data specified do not express or imply any warranty. Technical modifications subject to change. 2024-02-16

**Technical data**

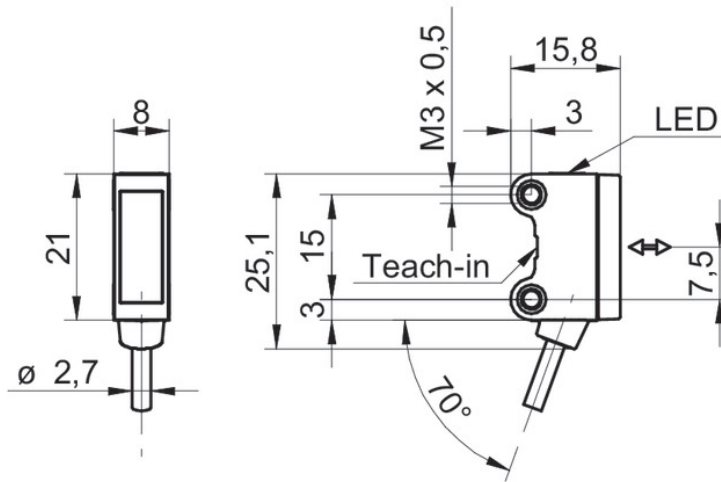
**Mechanical data**

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>

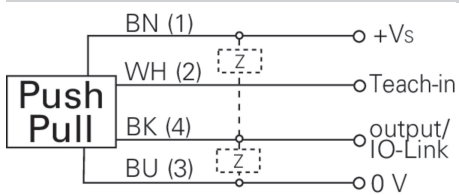
**Ambient conditions**

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

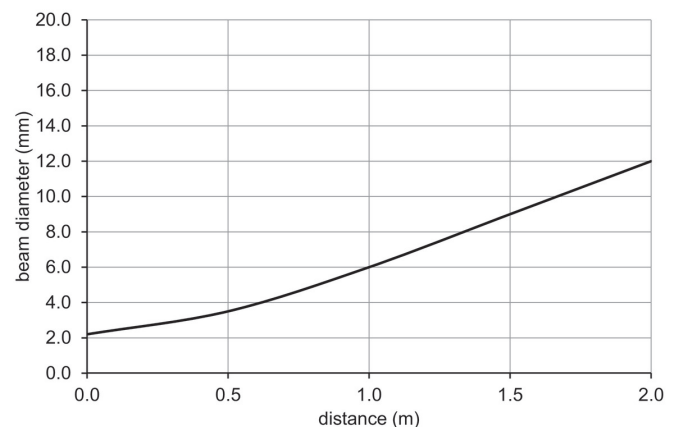
**Technical drawings**



**Connection diagram**



**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

**Excess gain curve**

