

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

Type	Retro-reflective sensor
Version	Single lens optics IO-Link dual channel
Light source	Pulsed red laser diode
Actual range Sb	0.8 m
Nominal range Sn	1.2 m
Smallest object recognizable typ.	3 mm at 500 mm
Polarization filter	Yes
Alignment / soiled lens indicator	Flashing output indicator
Output indicator	LED yellow
Power on indication	LED green
Sensitivity adjustment	IO-Link
Laser class	1
Distance to focus	Parallel beam
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
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

Electrical data

Output current	50 mA (< 40 °C), sum of all outputs 20 mA (< 50 °C), sum of all outputs
Short circuit protection	Yes
Reverse polarity protection	Yes

Communication interface

Baud rate	38,4 kBaud (COM 2)
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
IO-Link port type	Class A
Process data length	32 Bit
Process data structure	Bit 0 = SSC1 (presence) Bit 2 = quality Bit 3 = alarm Bit 5 = SSC4 (counter) Bit 16-31 = 16 Bit measurement
Interface	IO-Link V1.1
Additional data	Signal strength Excess gain Operating cycles Device temperature
Cycle time	≥ 2.7 ms

Mechanical data

Width / diameter	8 mm
Height / length	25.1 mm
Depth	15.8 mm

Technical data

Mechanical data

Design	Rectangular
Mechanical mounting	Sleeve smooth (stainless steel)
Housing material	Plastic (ASA, PMMA)
Front (optics)	PMMA
Connection types	Cable 4 pin, 2 m

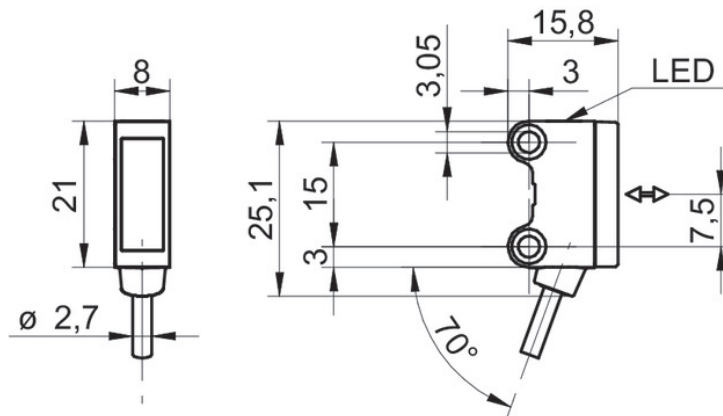
Mechanical data

Cable characteristics	PVC / PVC 4 x 0.08 mm ²
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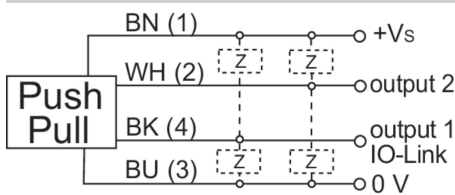
Ambient conditions

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

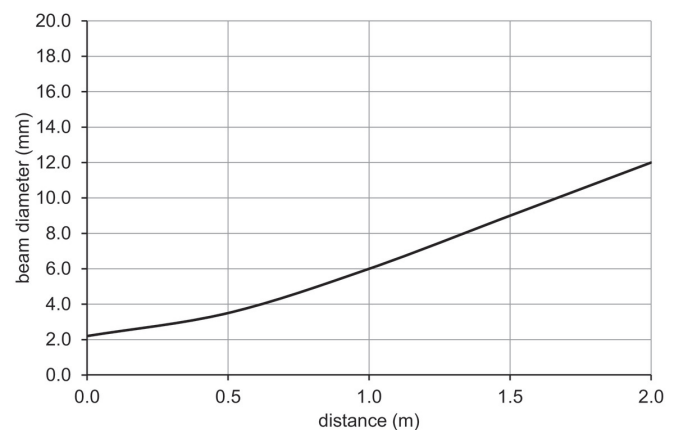
Technical drawings



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

