

Overview

- Outstanding reliability and unrivalled immunity against ambient light
- Focused laser beam for small objects or gaps
- IO-Link interface independent of the switching output (Dual Channel)
- 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

Type	Background suppression
Version	IO-Link dual channel
Sensing distance Tw	20 ... 120 mm
Sensing range Tb	3 ... 132 mm
Smallest object recognizable typ.	0.05 mm at 40 mm
Power on indication	LED green
Alignment / soiled lens indicator	Flashing output indicator
Output indicator	LED yellow
Sensing distance adjustment	IO-Link
Distance to focus	40 mm
Suppression of reciprocal influence	Yes
Beam type	Point
Alignment optical axis	< 1,5°

Light Source

Light source	Pulsed red laser diode
Laser class	1
Wave length	680 nm

Electrical data

Response time / release time	< 0.4 ms (High Speed Mode)
Jitter	< 0.21 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

Electrical data

Output circuit	Push-pull
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

Interface	IO-Link V1.1
IO-Link port type	Class A
Baud rate	38,4 kBaud (COM 2)
Cycle time	≥ 2.7 ms
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
Adjustable parameters	Switching point Switching hysteresis Time filters LED status indicators Output logic Output circuit Counter Operation mode Deactivate the sensor element Find Me function Teach-in mode

Additional data	Excess gain Operating cycles Device temperature
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Mechanical data

Width / diameter	8 mm
Height / length	25.1 mm

Technical data

Mechanical data

Depth	15.8 mm
Design	Rectangular
Mechanical mounting	Threaded sleeves M3 (stainless steel)
Housing material	Plastic (ASA, PMMA)
Front (optics)	PMMA

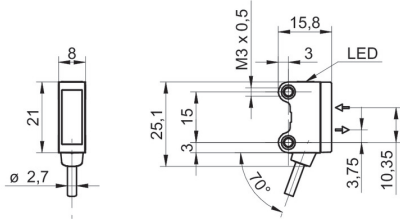
Mechanical data

Connection types	Cable 4 pin, 2 m
Cable characteristics	PVC / PVC 4 x 0.08 mm ²

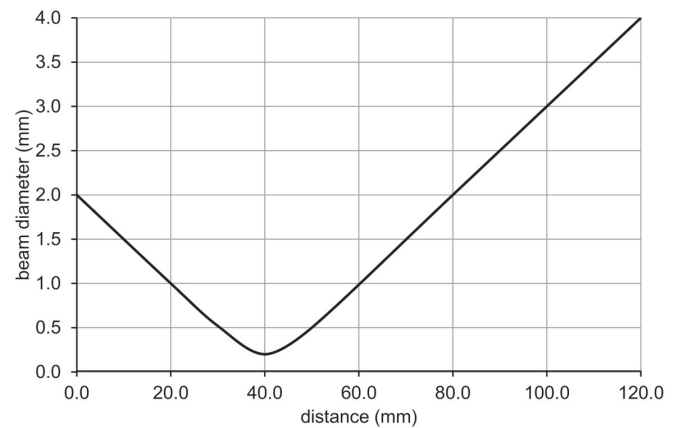
Ambient conditions

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

Dimension drawing



Beam characteristic (typically)

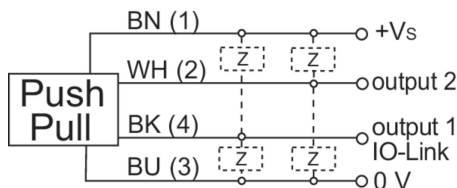


Laser warning

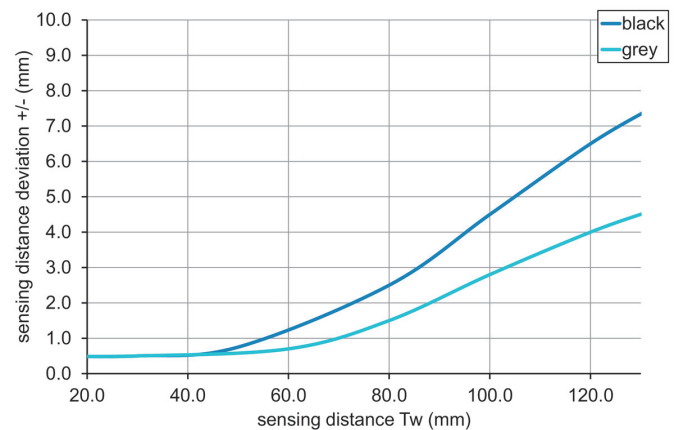
CLASS 1 LASER PRODUCT

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

Connection diagram



Sensing distance diagram



Hysteresis curve

