

Overview

- Outstanding reliability and unrivalled immunity against ambient light
- Extra range - best-in-class
- 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

Type	Background suppression
Sensing distance Tw	20 ... 175 mm
Sensing range Tb	3 ... 192 mm
Smallest object recognizable typ.	0.5 mm at 100 mm
Power on indication	LED green
Alignment / soiled lens indicator	Flashing output indicator
Output indicator	LED yellow
Sensing distance adjustment	Teach-in and IO-Link
Distance to focus	160 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	≤ 0.25 ms (High Speed Mode)
Jitter	≤ 0.06 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
Short circuit protection	Yes
Reverse polarity protection	Yes

Communication interface

Interface	IO-Link V1.1
IO-Link port type	Class A
Baud rate	230,4 kBaud (COM 3)
Cycle time	≥ 0.6 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 Counter Operation mode Deactivate the sensor element Find Me function Teach-in mode

Additional data

Excess gain
Operating cycles
Device temperature

Mechanical data

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

Technical data

Mechanical data

Mechanical mounting	Threaded sleeves M3 (stainless steel)
Housing material	Plastic (ASA, PMMA)
Front (optics)	PMMA
Connection types	Cable 4 pin, 2 m

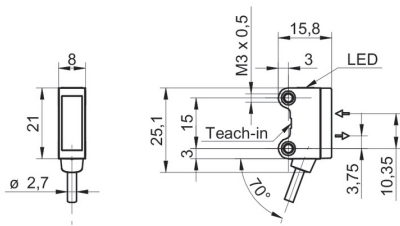
Mechanical data

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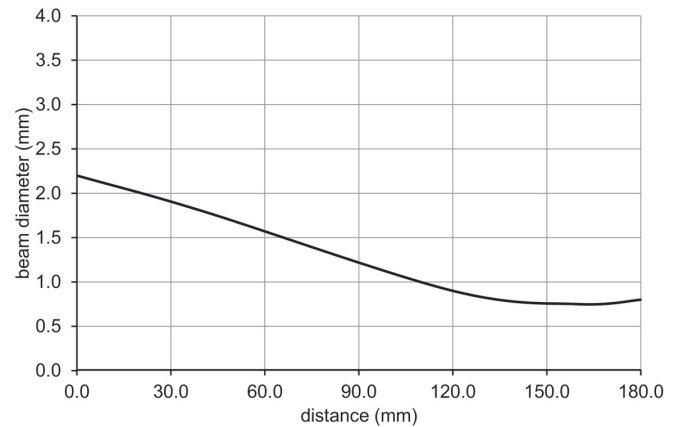
Ambient conditions

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

Dimension drawing



Beam characteristic (typically)



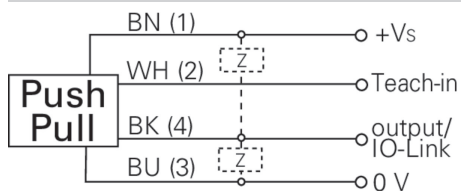
Laser warning

CLASS 1 LASER PRODUCT

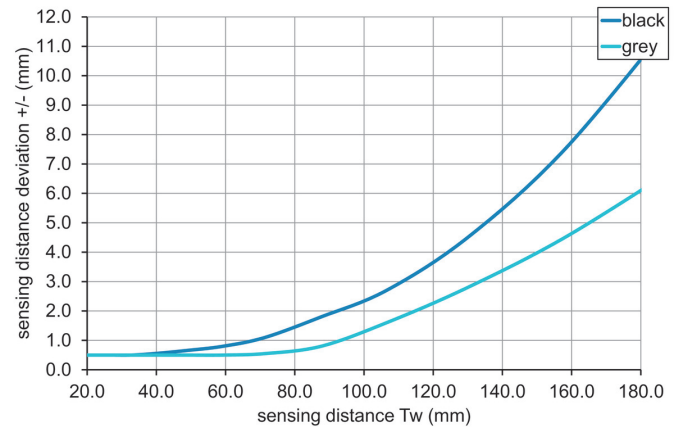
IEC 60825-1/2014

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

