

Overview

- Outstanding reliability and unrivalled immunity against ambient light
- Line beam for complete detection of irregular, perforated objects
- Precise detection thanks to laser light source
- 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	Background suppression	Voltage supply range +Vs	10 ... 30 VDC
Version	Line beam	Current consumption max. (no load)	20 mA (@ 10 VDC)
Sensing distance Tw	20 ... 120 mm	Current consumption typ.	10 mA (@ 24 VDC)
Sensing range Tb	3 ... 122 mm	Voltage drop Vd	<2 VDC
Smallest object recognizable typ.	8 mm at 60 mm	Output function	Light / dark operate
Power on indication	LED green	Output circuit	Push-pull
Alignment / soiled lens indicator	Flashing output indicator	Output current	50 mA
Output indicator	LED yellow	Short circuit protection	Yes
Sensing distance adjustment	Teach-in and IO-Link	Reverse polarity protection	Yes
Distance to focus	60 mm	Communication interface	
Suppression of reciprocal influence	Yes	Interface	IO-Link V1.1
Beam type	Line	IO-Link port type	Class A
Alignment optical axis	< 1,5°	Baud rate	230,4 kBaud (COM 3)
Light Source		Cycle time	≥ 0.6 ms
Light source	Pulsed red laser diode	Process data length	32 Bit
Laser class	1	Process data structure	Bit 0 = SSC1 (presence) Bit 2 = quality Bit 3 = alarm Bit 5 = SSC4 (counter) Bit 16-31 = 16 Bit measurement
Wave length	680 nm		
Electrical data			
Response time / release time	≤ 0.25 ms (High Speed Mode)		
Jitter	≤ 0.06 ms (High Speed Mode)		

Technical data

Communication interface

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
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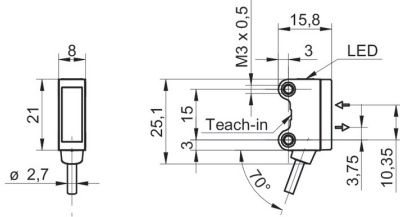
Mechanical data

Height / length	25.1 mm
Depth	15.8 mm
Design	Rectangular
Mechanical mounting	Threaded sleeves M3 (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 ²

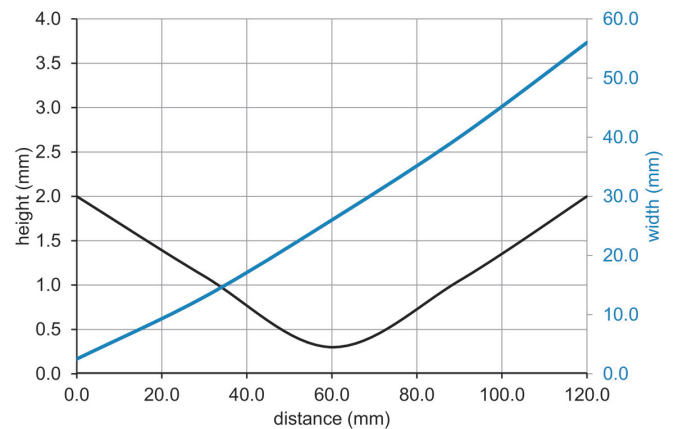
Ambient conditions

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

Dimension drawing



Beam characteristic (typically)

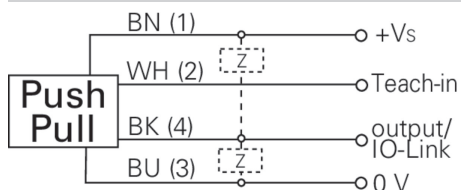


Laser warning

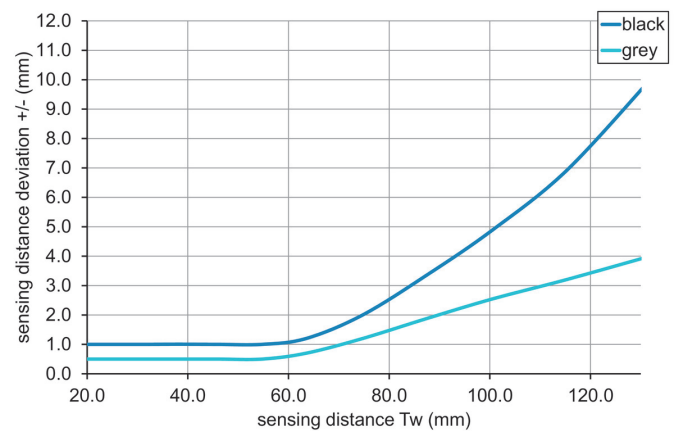
CLASS 1 LASER PRODUCT

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

