

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
- Robust housing with stainless steel spacer sleeves



Picture similar



Technical data

General data

Type	Background suppression
Version	Line beam
Sensing distance Tw	20 ... 120 mm
Sensing range Tb	3 ... 132 mm
Smallest object recognizable typ.	8 mm at 60 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	60 mm
Suppression of reciprocal influence	Yes
Beam type	Line
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

Electrical data

Output circuit	Push-pull
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

Technical data

Mechanical data

Design	Rectangular
Mechanical mounting	Sleeve smooth (stainless steel)
Housing material	Plastic (ASA, PMMA)
Front (optics)	PMMA
Connection types	Flylead connector M8 4 pin, L=200 mm

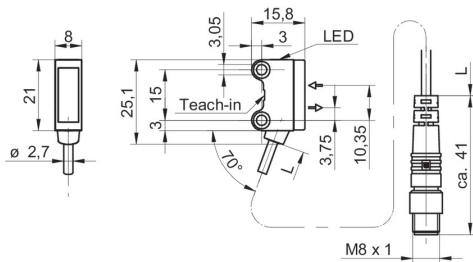
Mechanical data

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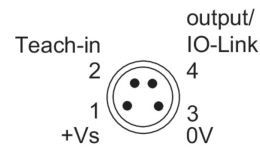
Ambient conditions

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

Dimension drawing



Pin assignment

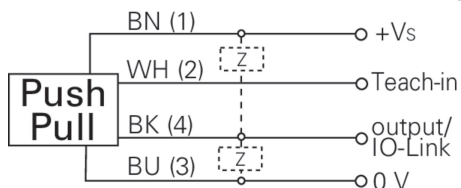


Laser warning

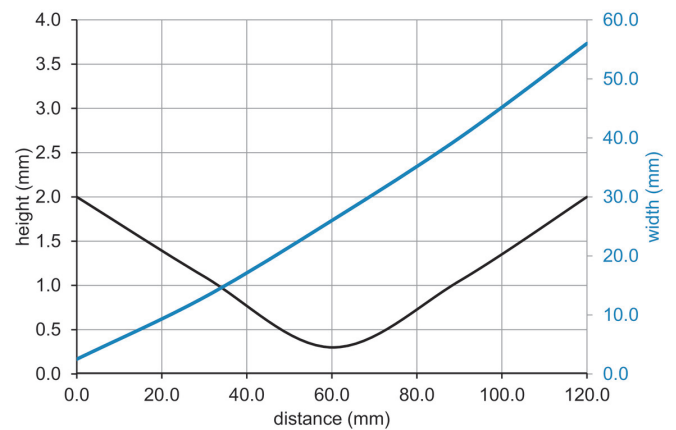
CLASS 1 LASER PRODUCT

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

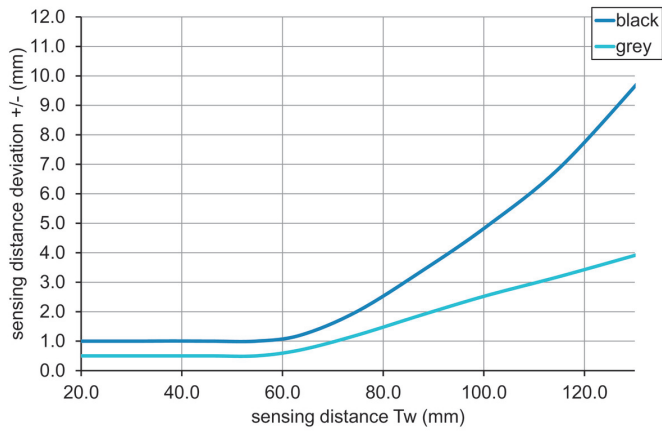
Connection diagram



Beam characteristic (typically)



Sensing distance diagram



Hysteresis curve

