

Overview

- Outstanding reliability and unrivalled immunity against ambient light
- Focused laser beam for small objects or gaps
- 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	Output current	50 mA
Sensing distance Tw	20 ... 120 mm	Short circuit protection	Yes
Sensing range Tb	3 ... 132 mm	Reverse polarity protection	Yes
Smallest object recognizable typ.	0.05 mm at 40 mm	Communication interface	
Power on indication	LED green	Interface	IO-Link V1.1
Alignment / soiled lens indicator	Flashing output indicator	IO-Link port type	Class A
Output indicator	LED yellow	Baud rate	230,4 kBaud (COM 3)
Sensing distance adjustment	Teach-in and IO-Link	Cycle time	≥ 0.6 ms
Distance to focus	40 mm	Process data length	32 Bit
Suppression of reciprocal influence	Yes	Process data structure	Bit 0 = SSC1 (presence) Bit 2 = quality Bit 3 = alarm Bit 5 = SSC4 (counter) Bit 16-31 = 16 Bit measurement
Beam type	Point	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
Alignment optical axis	< 1,5°	Additional data	Excess gain Operating cycles Device temperature
Light Source		Mechanical data	
Light source	Pulsed red laser diode	Width / diameter	8 mm
Laser class	1	Height / length	25.1 mm
Wave length	680 nm	Depth	15.8 mm
Electrical data		Design	Rectangular
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		

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

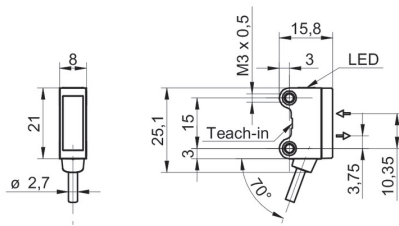
Mechanical data

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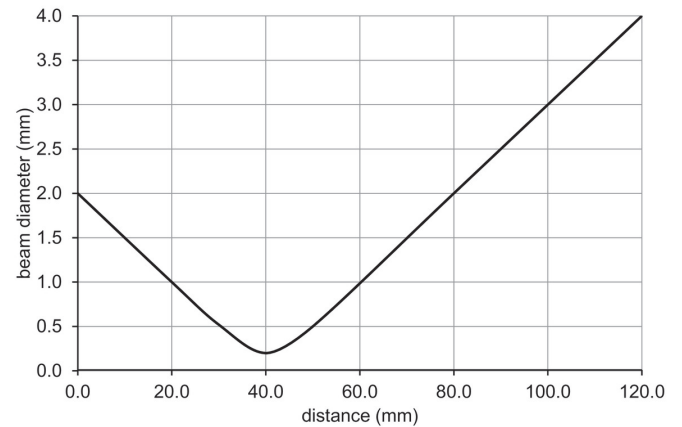
Ambient conditions

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

Dimension drawing



Beam characteristic (typically)



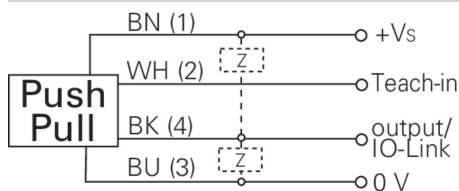
Laser warning

CLASS 1 LASER PRODUCT

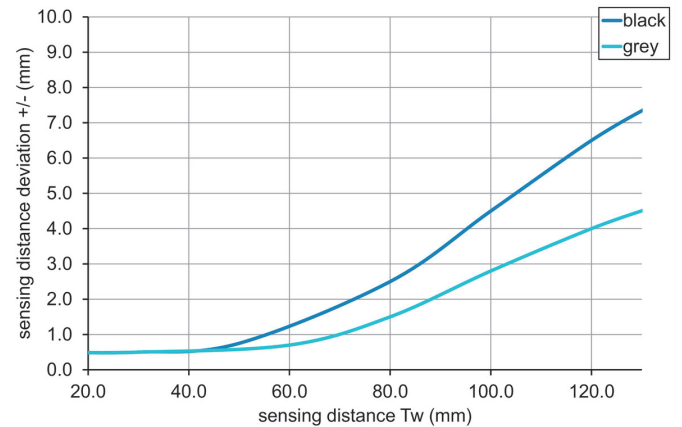
IEC 60825-1/2014

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

