

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	

Mechanical data

Width / diameter	8 mm
Height / length	25.1 mm

Technical data

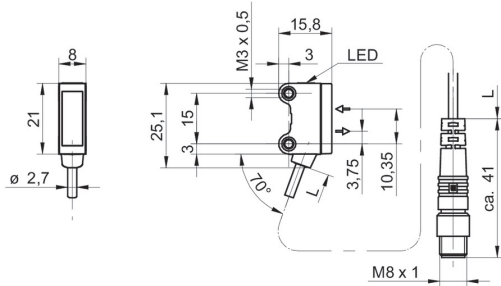
Mechanical data

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

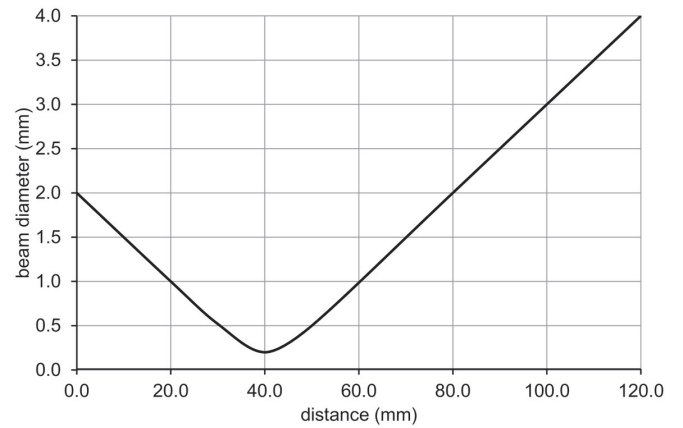
Mechanical data

Connection types	Flylead connector M8 4 pin, L=200 mm
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)



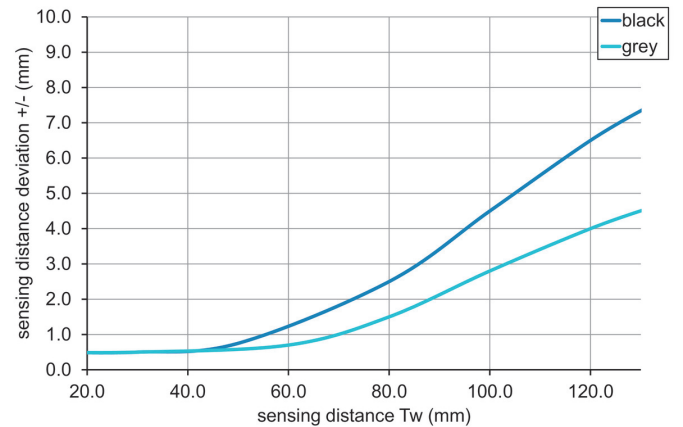
Laser warning



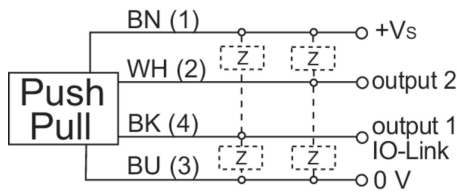
IEC 60825-1/2014

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

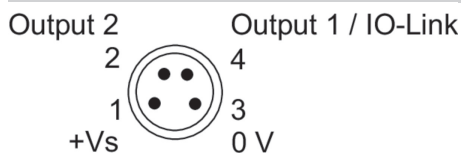
Sensing distance diagram



Connection diagram



Pin assignment



Hysteresis curve

