

Overview

- SmartReflect - Safe barrier principle without reflector
- 2 m sensing range thanks to time of flight principle
- Distance measurement value via IO-Link
- Manipulation-proof, simple teach-in via qTeach or line teach
- Extended parameterization options and additional diagnostic data via IO-Link
- Infrared laser light source suitable for use in dusty or smoky environments
- Alignment Guide - visible, red light beam for aligning the infrared laser



Picture similar



Technical data

General data

Type	Light barrier
Version	Time of Flight
Background position Sde	300 ... 2000 mm
Scanning range Sa	90% ... 94% Sde
Temperature drift	<0.3 mm/K: <750mm <0,04 % Sde/K: >750 mm
Power on indication	LED green
Output indicator	LED yellow
Sensing distance adjustment	Teach-in and IO-Link
Suppression of reciprocal influence	Yes
Beam type	Point
Alignment optical axis	< 1,5°

Light Source

Light source	Pulsed infrared laser diode
Laser class	1
Wave length	940 nm

Electrical data

Response time / release time	< 25 ms (High Speed Mode) < 50 ms (Standard Mode) < 200 ms (High Accuracy Mode)
Voltage supply range +Vs	10 ... 30 VDC
Current consumption max. (no load)	55 mA (@ 10 VDC)
Current consumption typ.	25 mA (@ 24 VDC)
Voltage drop Vd	<2.5 VDC
Output function	Light operate, switchable
Output circuit	Push-pull / IO-Link
Output current	100 mA
Short circuit protection	Yes

Electrical data

Reverse polarity protection	Yes
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Communication interface

Interface	IO-Link V1.1.4
Profile	DMSS
IO-Link port type	Class A
Baud rate	230.4 kBaud (COM 3)
Cycle time	≥ 2 ms
Process data length	48 Bit
Process data structure	Bit 0 = SSC1.1 (distance) Bit 1 = SSC1.2 (distance) Bit 2 = Uncertainty Flag Bit 3 = alarm Bit 8-15 = scale factor Bit 16-47 = 32 Bit measurement

Adjustable parameters	Switching point Operation mode Time filters LED status indicators Deactivate the sensor element Teach-in mode Output logic Locator function
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Additional data	Distance Excess gain Device temperature
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Mechanical data

Width / diameter	8 mm
Height / length	25.1 mm
Depth	15.8 mm
Design	Rectangular
Mechanical mounting	Sleeve smooth (stainless steel)
Housing material	Plastic (ASA, PMMA)

Technical data

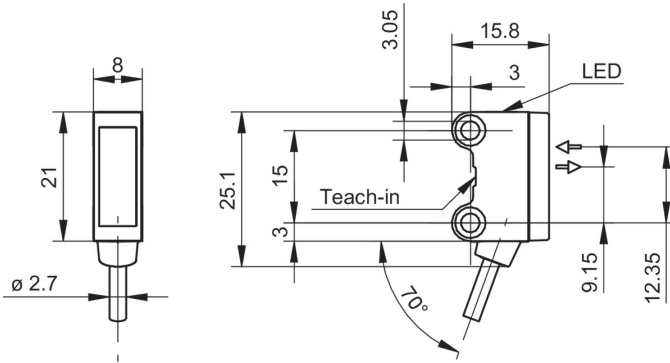
Mechanical data

Front (optics)	PMMA
Connection types	Cable 4 pin, 2 m
Cable characteristics	PVC / PVC 4 x 0.08 mm ²

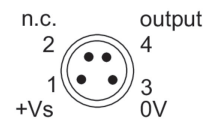
Ambient conditions

Protection class	IP 67
Operating temperature	-25 ... +50 °C
Storage temperature	-40 ... +70 °C

Dimension drawing



Pin assignment



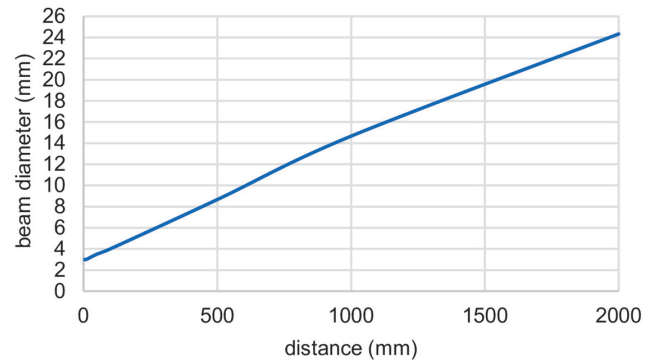
Laser warning

**CLASS 1 LASER
PRODUCT**

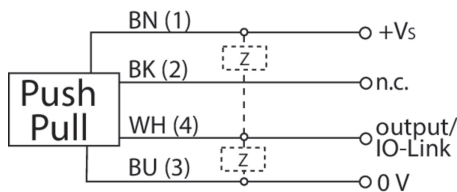
IEC 60825-1/2014

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

Beam characteristic (typically)

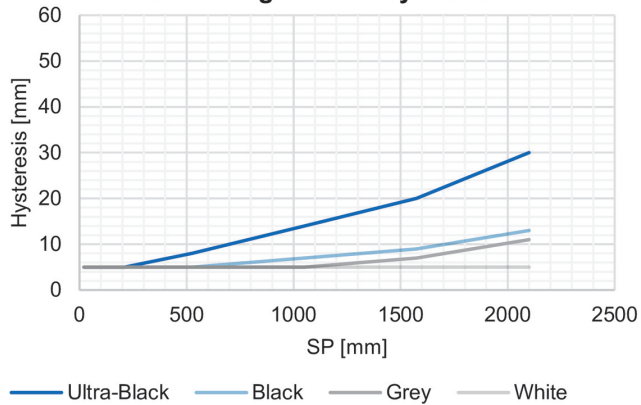


Connection diagram

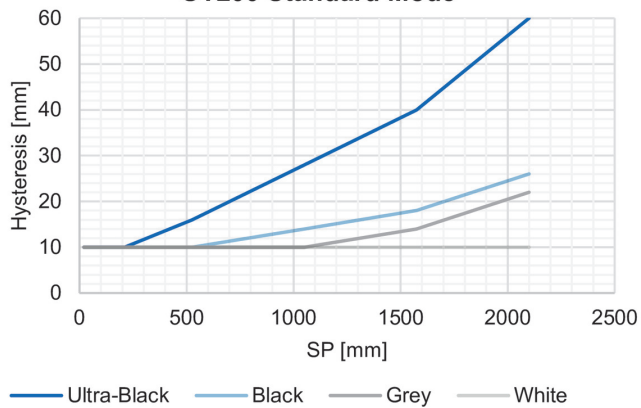


Hysteresis curve

OT200 High Accuracy Mode



OT200 Standard Mode



OT200 High Speed Mode

