

Overview

- 2 m sensing range thanks to time of flight principle
- Distance measurement value via IO-Link
- Reliable also on very dark and shiny objects
- 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	Background suppression
Version	Time of Flight
Sensing distance Tw	0 ... 2000 mm
Sensing range Tb	0 ... 2100 mm
Repeat accuracy	≤ 5 mm ... ± 10 mm
Temperature drift	<0,3 mm/K: <750 mm <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

Electrical data

Short circuit protection	Yes
Reverse polarity protection	Yes

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	≥ 0.7 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 Output logic Deactivate the sensor element Teach-in mode 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)

Technical data

Mechanical data

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

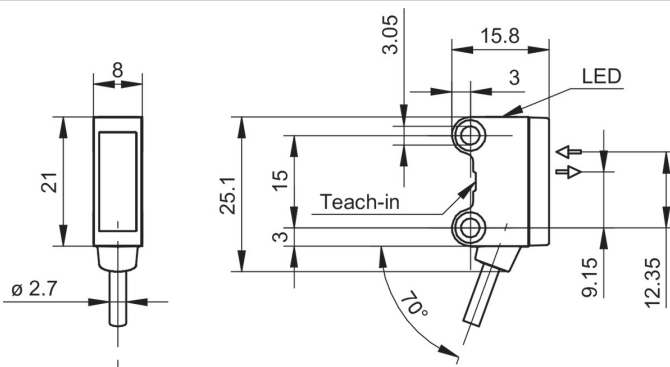
Ambient conditions

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

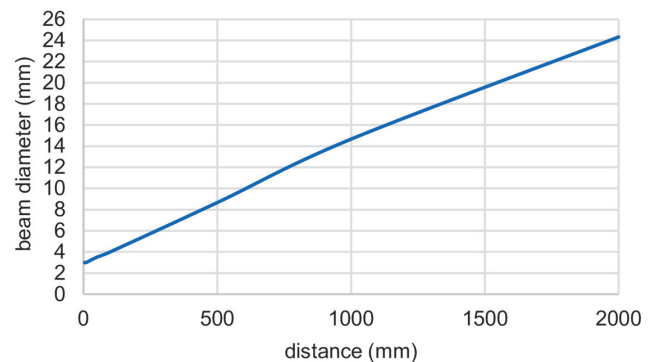
Ambient conditions

Storage temperature	-40 ... +70 °C
Vibration (sinusoidal)	IEC 60068-2-6:2008 10 g at f = 10 - 2000 Hz, duration 150 min per axis
Shock (semi-sinusoidal)	IEC 60068-2-27:2009 50 g / 11 ms, 10 impulses per axis and direction

Dimension drawing



Beam characteristic (typically)



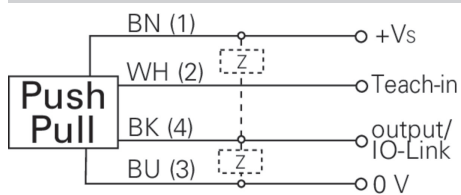
Laser warning

**CLASS 1 LASER
PRODUCT**

IEC 60825-1/2014

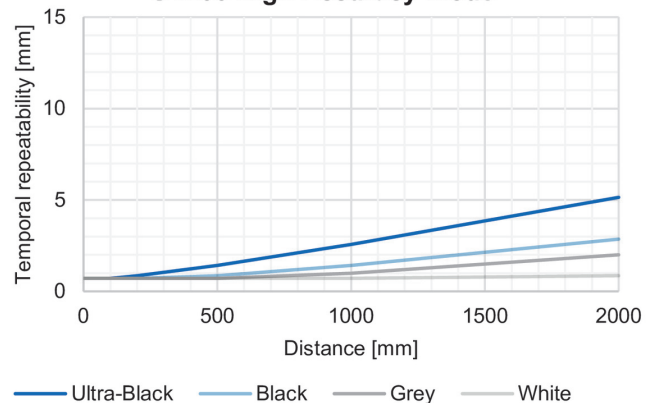
Complies with 21 CFR 1040.10 and 1040.11 except for conformance with IEC 60825-1 Ed. 3., as described in Laser Notice No. 56, dated May 8, 2019

Connection diagram

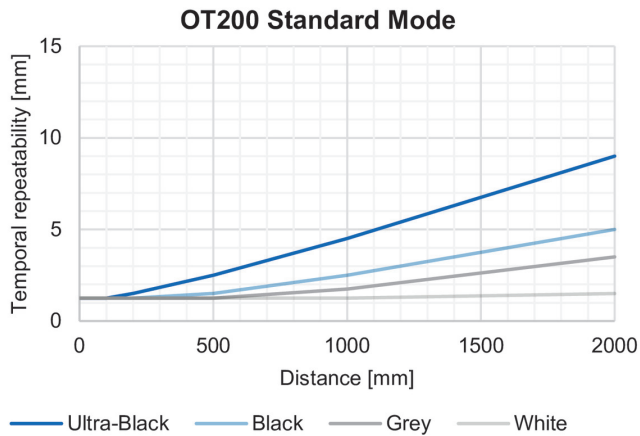


Repeat accuracy

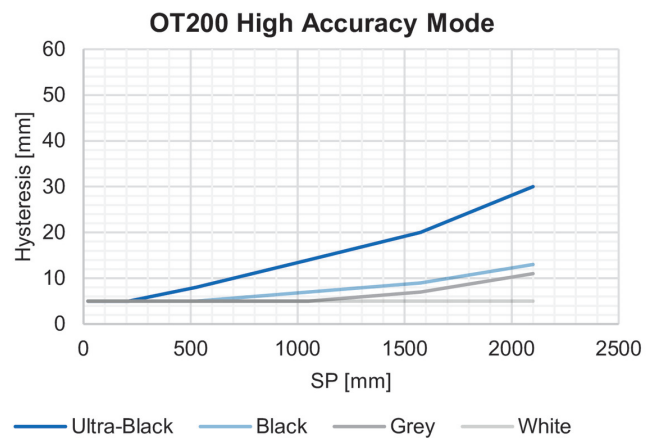
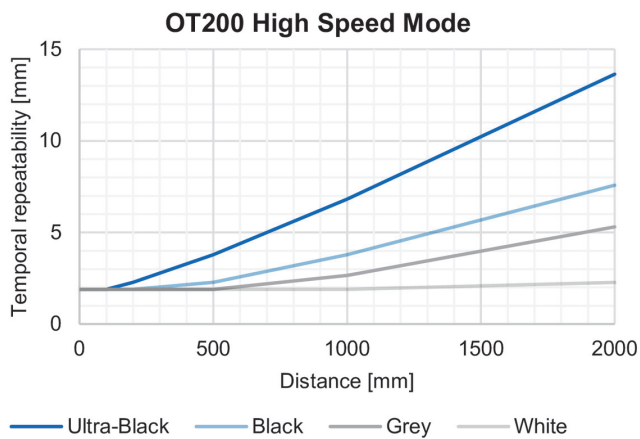
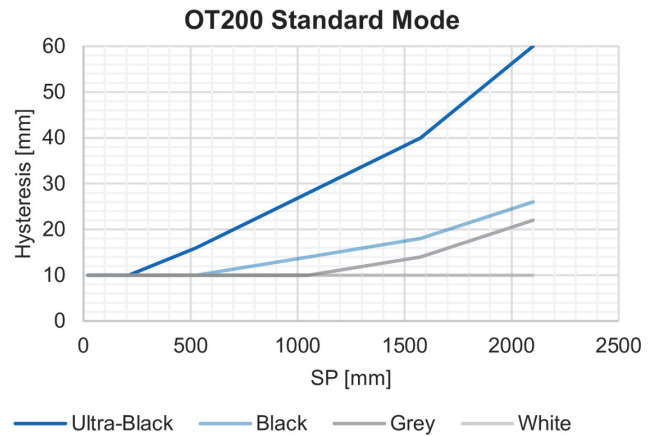
OT200 High Accuracy Mode



Repeat accuracy



Hysteresis curve



Hysteresis curve

