Baumer
Passion for Sensors

SmartReflect sensor

OT330.SN-GDZZJ.72NV/0030

Smart Reflect Light Barriers - for longer distances

Article number: 11736170

Overview

- SmartReflect - Safe barrier principle without reflector
- 2.5 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



Technical data

General data	
Type	Light barrier
Version	Time of Flight
Background position Sde	300 … 2500 mm
Scanning range Sa	90% ... 94% Sde
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	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	Dark operate, switchable
Output circuit	Push-pull / IO-Link
Output current	100 mA
Short circuit protection	Yes

Electrical data	
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 Locater function Output logic Sensor element function (on/off) Teach-in mode
Additional data	Distance Excess gain Device temperature
Mechanical data	
Width / diameter	11 mm
Height / length	32 mm
Depth	21 mm
Design	Rectangular
Mechanical mounting	Sleeve smooth (brass)
Housing material	Plastic (ABS, ASA, PMMA)
Front (optics)	PMMA

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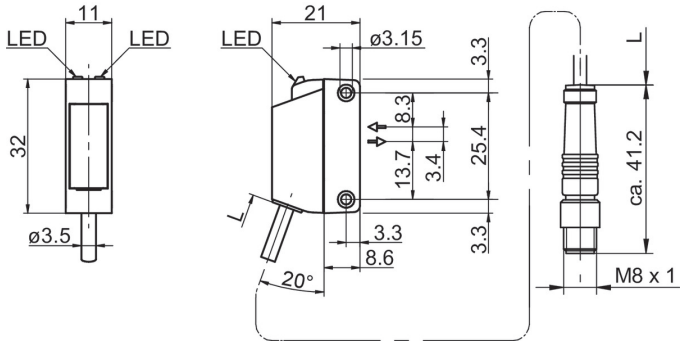
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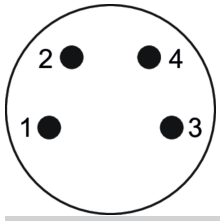
Mechanical data	
Connection types	Flylead connector PVC M8 4-pin, L=300 mm
Cable characteristics	PVC / PVC 4 x 0.14 mm²
Ambient conditions	
Protection class	IP 67
Operating temperature	-25 … +55 °C
Storage temperature	-40 … +70 °C

Ambient conditions	
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 resp. 100 g / 6 ms, 10 jolts per axis and direction

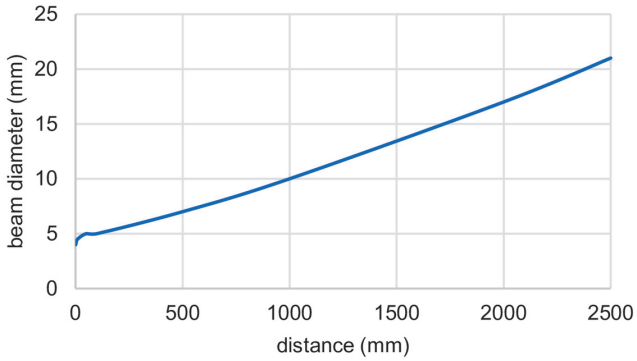
Dimension drawing



Pin assignment



Beam characteristic (typically)

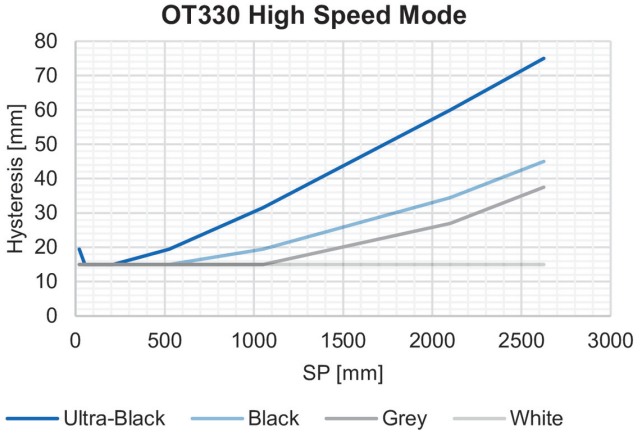


Laser warning

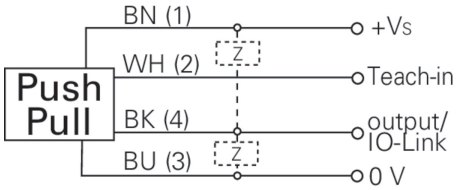


IEC 60825-1/2014
Complies with 21 CFR 1040.10 and 1040.11 except for conformance with IEC 60825-1 Ed. 3., as described in Laser Notice No. 56, dated May 8, 2019

Hysteresis curve



Connection diagram



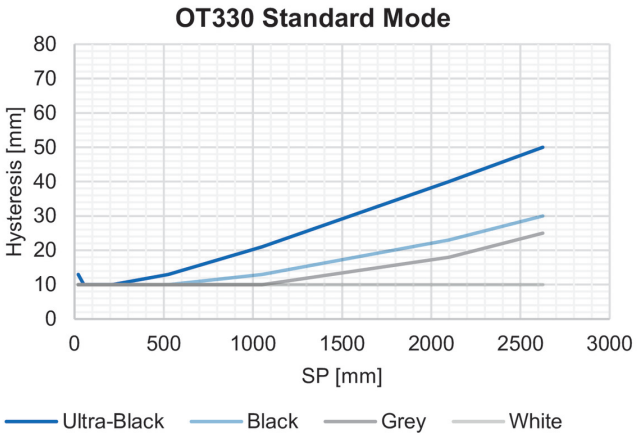
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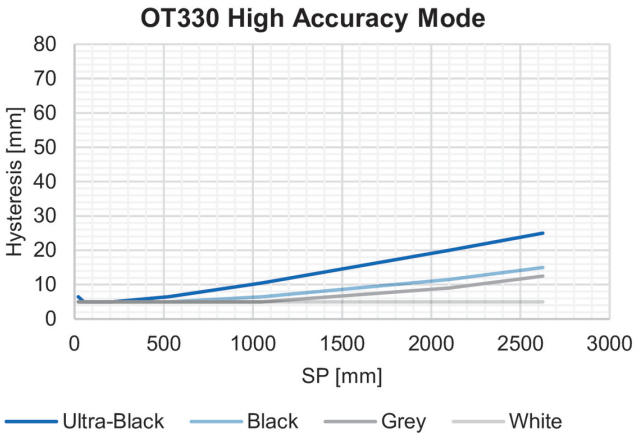
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