Dimensions







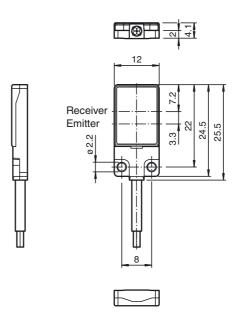
Model Number

OBT15-R2F-E0-L

Laser triangulation sensor with background suppression with 2 m fixed cable

Features

- · Very flat design for direct mounting without mounting bracket
- ٠ DuraBeam Laser Sensors - durable and employable like an LED
- ٠ Small parts detection from 0.05 mm
- Highly visible light spot, even on dark • materials
- Extremely small light spot for very • high switching point accuracy
- Precision object detection, almost • irrespective of the color



Electrical connection



Pepperl+Fuchs Group www.pepperl-fuchs.com

Refer to "General Notes Relating to Pepperl+Fuchs Product Information" USA: +1 330 486 0001 fa-info@us.pepperl-fuchs.com

Germany: +49 621 776 1111 fa-info@de.pepperl-fuchs.com

Singapore: +65 6779 9091 fa-info@sg.pepperl-fuchs.com ⁵ PEPPERL+FUCHS

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Purse lengtin approx. 3 µS Repetition rate approx. 16.6 kHz max. pulse energy 8 nJ Black/White difference (6 %/90 %) < 15 % at 15 mm Angle deviation approx. 0.5 ° Object size typ. starts from 0.05 mm @: 14 mm Diameter of the light spot approx. 0.9 mm at a distance of 15 mm Angle deviation approx. 1 ° Optical face frontal Ambient light limit EN 60947-5-2 : 25000 Lux Functional safety related parameters MTTF_d MTTF_d 800 a Mission Time (T _M) 20 a Diagnostic Coverage (DC) 0 % Indicators/operating means Up yellow ON: lights when object is detected Electrical specifications Up yellow ON: lights when object is detected Electrical specifications III Operating voltage Ug t 2 24 V No-load supply current Io No-load supply current NO contact / light on Signal output 1 NPN output, short-circuit protected, reverse polarity protected, open collector Switching frequency f approx. 2 KHz Response time 250 µs <th>CLASS 1 LASER PRODUCT CLASS 1 ASER PRODUCT CLASS 1 CLASS 1 CLA</th>	CLASS 1 LASER PRODUCT CLASS 1 ASER PRODUCT CLASS 1 CLASS 1 CLA
Reference target standard while, 100 mm x 100 mm Light source LASER LIGHT Light type modulated visible red light, 680 nm Laser class 1 Wave length 680 nm Beam divergence > 5 mrad Pulse length approx. 35 k Repetition rate approx. 16.6 kHz max. pulse energy 8 nJ Black/White difference (6 %/90 %) < 15 % at 15 mm Angle deviation approx. 0.5 ° Object size typ. starts from 0.05 mm @ 14 mm Diameter of the light spot approx. 0.5 ° Optical face frontal Angle deviation approx. 1.6 % Hz Maxing deprox. 1 * 00.05 mm @ 14 mm Diameter of the light spot Diameter of the light spot approx. 0.5 ° Optical face frontal Angle deviation approx. 1.6 % KHz Mission Time (T ₁₀) 20 a Diagnostic Coverage (DC) 0 % Indicator Soperating means LED green, statically lif Power on , short-circuit : LED green factorist green flags (approx. 4 Hz) Function indicator LED green, statically lif Power on , short-circuit y totected.	LASER PRODUCT CLASS 1 ASER PRODUCT EC 60825-1: 2007 certified. Somplies with 21 CFR 040.10 and 1040.11 except or deviations pursuant to aser Notice No. 50,
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Housing height25.5 mmHousing depth4.1 mmDegree of protectionIP67	
Housing depth4.1 mmDegree of protectionIP67	
Degree of protection IP67	
Connection 2 m fixed cable	
Material	
Housing PC (Polycarbonate) and Stainless steel	
Optical face PMMA	
Cable PUR	
Mass approx. 20 g	
Tightening torque, fastening screws 0.25 Nm	
Cable length 2 m	
Approvals and certificates	
UL approval E87056 , cULus Recognized, Class 2 Power Source	
CCC approval / marking not required for products rated ≤36 V	
FDA approval IEC 60825-1:2007 Complies with 21 CFR 1040.10 and	
1040.11 except for deviations pursuant to Laser Notice No. 50, dated June 24, 2007	

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Refer to "General Notes Relating to Pepperl+Fuchs Product Information"

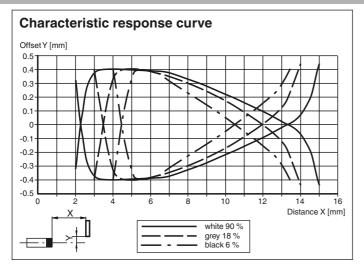
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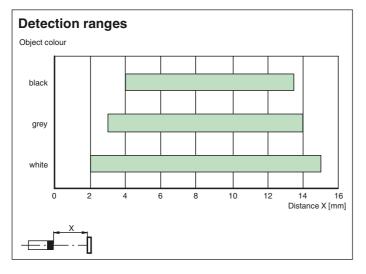
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Germany: +49 621 776 1111 fa-info@de.pepperl-fuchs.com

Singapore: +65 6779 9091 fa-info@sg.pepperl-fuchs.com

Curves/Diagrams





Laser notice laser class 1

- The irradiation can lead to irritation especially in a dark environment. Do not point at people!
- Maintenance and repairs should only be carried out by authorized service personnel!
- · Attach the device so that the warning is clearly visible and readable.
- The warning accompanies the device and should be attached in immediate proximity to the device.
- Caution Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

Germany: +49 621 776 1111 fa-info@de.pepperl-fuchs.com Singapore: +65 6779 9091 fa-info@sg.pepperl-fuchs.com