

CE **OIO**-Link

Model Number

OBT300-R200-EP-IO-V3

Triangulation sensor (BGS) with 3-pin, M8 x 1 connector

Features

- Medium design with versatile • mounting options
- Best background suppressor in its ٠ class
- Precision object detection, almost • irrespective of the color
- Extended temperature range -40°C ... 60°C
- High degree of protection IP69K
- IO-link interface for service and process data

Product information

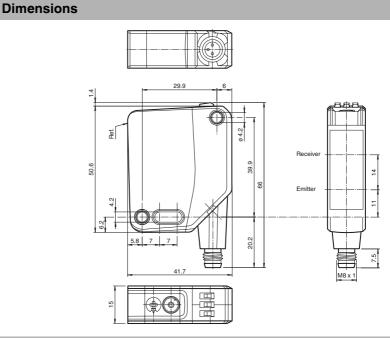
The optical sensors in the series are the first devices to offer an end-to-end solution in a medium-sized standard design-from the thru-beam sensor through to the measuring distance sensor. As a result of this design, the sensors are able to perform practically all standard automation tasks.

The entire series enables sensors to communicate via IO-Link.

The DuraBeam laser sensors are durable and can be used in the same way as a standard sensor.

Multi Pixel Technology (MPT) ensures that the standard sensors are flexible and

can be adapted to the application environment.



Electrical connection



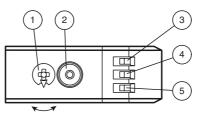
Pinout



(brown (blue) (black) BN BU BK

Wire colors in accordance with EN 60947-5-2

Indicators/operating means



1	Sensitivity adjustment	
2	Light-on / dark-on changeover switch	
3	Operating indicator / dark on	GN
4	Signal indicator	YE
5	Operating indicator / light on	GN

Refer to "General Notes Relating to Pepperl+Fuchs Product Information" USA: +1 330 486 0001

Pepperl+Fuchs Group www.pepperl-fuchs.com

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Singapore: +65 6779 9091 fa-info@sg.pepperl-fuchs.com ⁵ PEPPERL+FUCHS 1 Light source

Light type

MTTF_d

Ripple

Interface

Interface type Device profile

Transfer rate

Min. cvcle time

Device ID

Signal output

Usage category

Response time

Housing width

Housing height

Housing depth

Optical face

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Connection

Material Housing

Mass

Conformity

Voltage drop

Output Switching type

Technical data Accessories General specifications IO-Link-Master02-USB 30 ... 300 mm Detection range IO-Link master, supply via USB port or 30 ... 80 mm Detection range min. separate power supply, LED indicators, 30 ... 300 mm Detection range max. M12 plug for sensor connection Adjustment range 80 ... 300 mm standard white, 100 mm x 100 mm Reference target LED modulated visible red light sensors LED risk group labelling exempt aroup Black/White difference (6 %/90 %) < 5 % at 300 mm Diameter of the light spot approx. 8 mm x 8 mm at a distance of 300 mm Angle of divergence approx. 1.5 Ambient light limit EN 60947-5-2 : 70000 Lux Functional safety related parameters 600 a Mission Time (T_M) 20 a Diagnostic Coverage (DC) 0% Indicators/operating means sensors Operation indicator LED green: constantly on - power on flashing (4Hz) - short circuit flashing with short break (1 Hz) - IO-Link mode Function indicator LED vellow: PUR cable constantly on - object detected constantly off - object not detected Control elements Light-on/dark-on changeover switch Control elements Sensing range adjuster PUR cable **Electrical specifications** Operating voltage UR 10 ... 30 V DC max. 10 % < 26 mA at 24 V supply voltage No-load supply current 10 Protection class ш IO-Link (via C/Q = pin 4) Identification and diagnosis Smart Sensor type 2.4 COM 2 (38.4 kBaud) **IO-Link Revision** 1.1 2.3 ms Process data witdh Process data input 1 Bit Process data output 2 Bit SIO mode support ves 0x111602 (1119746) Compatible master port type Α The switching type of the sensor is adjustable. The default setting is: C/Q - Pin4: NPN normally open / light-on, PNP normally closed / dark-on, IO-Link 1 push-pull (4 in 1) output, short-circuit protected, reverse polarity protected, overvoltage protected Switching voltage max 30 V DC max. 100 mA , resistive load Switching current DC-12 and DC-13 ≤ 1.5 V DC Ud Switching frequency f 500 Hz 1 ms Communication interface IEC 61131-9 Product standard EN 60947-5-2 Ambient conditions Ambient temperature -40 ... 60 °C (-40 ... 140 °F) Storage temperature -40 ... 70 °C (-40 ... 158 °F) Mechanical specifications 15 mm 50.6 mm 41.7 mm IP67 / IP69 / IP69K Degree of protection Connector plug, M8 x 1, 3 pin, rotatable by 90° PC (Polycarbonate)

OMH-MLV12-HWK Mounting bracket for series MLV12 OMH-R200-01 Mounting aid for round steel ø 12 mm or sheet 1.5 mm ... 3 mm **OMH-R20x-Quick-Mount** Quick mounting accessory OMH-MLV12-HWG Mounting bracket for series MLV12 V3-WM-2M-PUR Female cordset single-ended, M8, 3-pin, V3-GM-2M-PUR Female cordset single-ended, M8, 3-pin, Other suitable accessories can be found at www.pepperl-fuchs.com

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approx. 35 g

PMMA

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PEPPERL+FUCHS

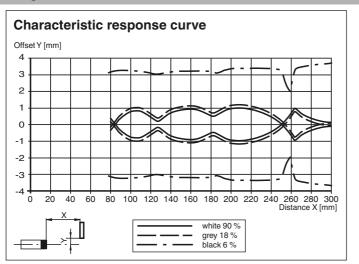
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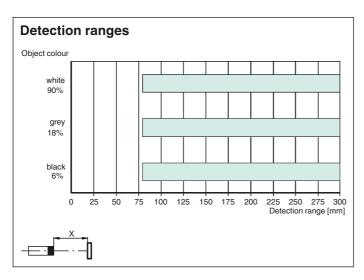
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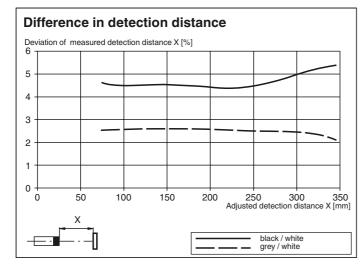
Approvals and certificates

UL approval CCC approval E87056 , cULus Listed , class 2 power supply , type rating 1 CCC approval / marking not required for products rated ${\leq}36$ V

Curves/Diagrams







To unlock the adjustment functions, rotate the sensing range/sensitivity adjuster by more than 180°.

Sensing Range/Sensitivity

To increase the sensing range/sensitivity, rotate the sensing range/sensitivity adjuster clockwise.

To reduce the sensing range/sensitivity, rotate the sensing range/sensitivity adjuster counter-clockwise.

As soon as the end of the adjustment range is reached, the signal indicator flashes at 8 Hz.

Configuring Light On/Dark On

Press the light-on/dark-on changeover switch for more than 1 second (but less than 4 seconds). "Light on/dark on" mode changes and the relevant operating indicator lights up.

If you press the light-on/dark-on changeover switch for longer than 4 seconds, the "light on/dark on" mode will switch back to the original setting. The current status is activated when the light-on/dark-on changeover switch is released.

Restoring Factory Settings

Press the light-on/dark-on changeover switch for more than 10 seconds (but less than 30 seconds) until all LEDs go out. When the light-on/dark-on changeover switch is released, the signal indicator lights up. After 5 seconds, the sensor resumes operation with the factory settings.

The adjustment functions are locked after 5 minutes of inactivity. To unlock the adjustment functions, rotate the sensing range/ sensitivity adjuster again by more than 180°.