

Laser diffuse mode sensor with adjustable background suppression



Function

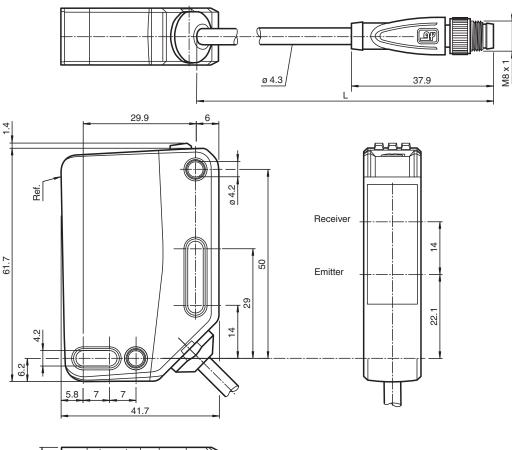
The optical sensors in the series are the first devices to offer an end-to-end solution in a medium-sized standard design - from the thru-beam sensor through to the measuring distance sensor. As a result of this design, the sensors are able to perform practically all standard automation tasks.

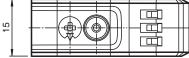
The entire series enables sensors to communicate via IO-Link. The DuraBeam laser sensors are durable and can be used in the same way as a standard sensor. Multi Pixel Technology (MPT) ensures that the standard sensors are flexible and can be adapted to the application environment.



Triangulation sensor (BGS)

Dimensions





Technical Data

General specifications	
Detection range	40 600 mm
Detection range min.	40 90 mm
Detection range max.	40 600 mm
Adjustment range	90 600 mm
Reference target	standard white, 100 mm x 100 mm
Light source	laser diode
Light type	modulated visible red light
Laser nominal ratings	
Note	LASER LIGHT , DO NOT STARE INTO BEAM
Laser class	1
Wave length	680 nm
Beam divergence	> 5 mrad, d63 < 2,8 mm in the range of 350 mm 800 mm
Pulse length	3 µs
Repetition rate	approx. 13 kHz
max. pulse energy	10.4 nJ
Black-white difference (6 %/90 %)	< 5 % at 300 mm
Diameter of the light spot	approx. 2.5 mm at a distance of 600 mm
Opening angle	approx. 0.3 °
Ambient light limit	EN 60947-5-2 : 70000 Lux
Functional safety related parameters	

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

Technical Data

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Pipple max. 10 % No-load supply current Is < 15 mA at 24 V supply voltage	Electrical specifications		
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Mechanical specifications			-20 60 °C (-4 140 °F) , movable cable not appropriate for conveyor chains
	Storage temperature		-40 70 °C (-40 158 °F)
Housing width 15 mm	Mechanical specifications		
	Housing width		15 mm

Release date: 2023-01-16 Date of issue: 2023-01-16 Filename: 295670-100238_eng.pdf

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

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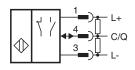


OBT600-R201-EP-IO-0,3M-V3-L

Technical Data

Housing height	61.7 mm
Housing depth	41.7 mm
Degree of protection	IP67 / IP69 / IP69K
Connection	300 mm fixed cable with M8 x 1, 3-pin connector
Material	
Housing	PC (Polycarbonate)
Optical face	PMMA
Mass	approx. 52 g
Cable length	0.3 m

Connection



Connection Assignment



Wire colors in accordance with EN 60947-5-2

1	BN	(brown)
3	BU	(blue)
4	BK	(black)

Assembly

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Release date: 2023-01-16 Date of issue: 2023-01-16 Filename: 295670-100238_eng.pdf

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

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Sensitivity adjustment

Signal indicator

Operating indicator / dark on

Operating indicator / light on

Light-on / dark-on changeover switch

1 2

3

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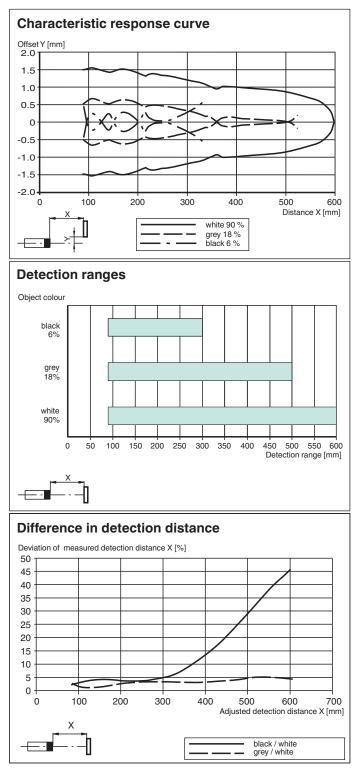
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Characteristic Curve



Release date: 2023-01-16 Date of issue: 2023-01-16 Filename: 295670-100238_eng.pdf

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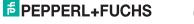
Safety Information



Accessories

61	V3-GM-2M-PUR	Female cordset single-ended M8 straight A-coded, 3-pin, PUR cable grey
	OMH-RL31-02	Mounting bracket narrow
	OMH-RL31-03	Mounting bracket narrow
F.A.	OMH-RL31-04	Mounting aid for round steel ø 12 mm or sheet 1.5 mm 3 mm
	OMH-RL31-07	Mounting bracket including adjustment
	OMH-RL31-08	Mounting aid for round steel ø 12 mm or sheet 1.5 mm 3 mm
17	OMH-R20x-Quick-Mount	Quick mounting accessory
6/	V3-WM-2M-PUR	Female cordset single-ended M8 angled A-coded, 3-pin, PUR cable grey
Jan Ja	ICE2-8IOL-G65L-V1D	EtherNet/IP IO-Link master with 8 inputs/outputs
	ICE3-8IOL-G65L-V1D	PROFINET IO IO-Link master with 8 inputs/outputs
	ICE2-8IOL-K45S-RJ45	EtherNet/IP IO-Link master with 8 inputs/outputs, DIN rail, screw terminal

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



Triangulation sensor (BGS)

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	ICE3-8IOL-K45P-RJ45	PROFINET IO IO-Link master with 8 inputs/outputs, DIN rail, push-in terminals
	ICE3-8IOL-K45S-RJ45	PROFINET IO IO-Link master with 8 inputs/outputs, DIN rail, screw terminal
	IO-Link-Master02-USB	IO-Link master, supply via USB port or separate power supply, LED indicators, M12 plug for sensor connection
and the second	ICE1-8IOL-G30L-V1D	Ethernet IO-Link module with 8 inputs/outputs
	ICE1-8IOL-G60L-V1D	Ethernet IO-Link module with 8 inputs/outputs
	ICE2-8IOL-K45P-RJ45	EtherNet/IP IO-Link master with 8 inputs/outputs, DIN rail, push-in connectors

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

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Configuration

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°.

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

