



**Model Number**

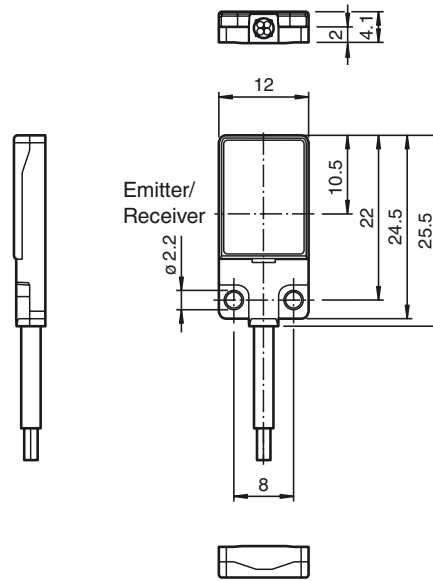
**OBE500-R2F-SE2**

Thru-beam sensor (pair)  
with 2 m fixed cable

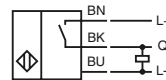
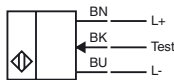
**Features**

- Very flat design for direct mounting without mounting bracket
- Very bright, highly visible light spot

**Dimensions**



**Electrical connection**



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

**Technical data****System components**

Emitter	OBE500-R2F-S
Receiver	OBE500-R2F-E2

**General specifications**

Effective detection range	0 ... 500 mm
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Threshold detection range	700 mm
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Light source	LED
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Light type	modulated visible red light , 630 nm
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LED risk group labelling	exempt group
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Angle deviation	approx. 2 °
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Object size	typ. starts from 1.5 mm
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Diameter of the light spot	approx. 90 mm at a distance of 500 mm
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Angle of divergence	approx. 5 °
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Optical face	frontal
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Ambient light limit	EN 60947-5-2 : 25000 Lux
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**Functional safety related parameters**

MTTF <sub>d</sub>	806 a
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Mission Time (T <sub>M</sub> )	20 a
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Diagnostic Coverage (DC)	0 %
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**Indicators/operating means**

Operation indicator	LED green, statically lit Power on , short-circuit : LED green flashing (approx. 4 Hz)
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Function indicator	Receiver: LED yellow, lights up when light beam is free, flashes when falling short of the stability control ; OFF when light beam is interrupted
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**Electrical specifications**

Operating voltage	U <sub>B</sub>	10 ... 30 V DC
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No-load supply current	I <sub>0</sub>	< 10 mA
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Protection class	III
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**Input**

Test input	Test of switching function at 0 V
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**Output**

Switching type	NO contact / dark on
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Signal output	1 PNP output, short-circuit protected, reverse polarity protected, open collector
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Switching voltage	max. 30 V DC
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Switching current	max. 50 mA , resistive load
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Voltage drop	U <sub>d</sub>	≤ 1.5 V DC
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Switching frequency	f	approx. 1 kHz
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Response time	500 μs
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**Conformity**

Product standard	EN 60947-5-2
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**Ambient conditions**

Ambient temperature	-20 ... 60 °C (-4 ... 140 °F)
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Storage temperature	-20 ... 70 °C (-4 ... 158 °F)
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**Mechanical specifications**

Housing width	12 mm
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Housing height	25.5 mm
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Housing depth	4.1 mm
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Degree of protection	IP67
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Connection	2 m fixed cable
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**Material**

Housing	PC
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Optical face	PMMA
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Cable	PUR
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Mass	approx. 20 g Per sensor
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Tightening torque, fastening screws	1 Nm
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Cable length	2 m
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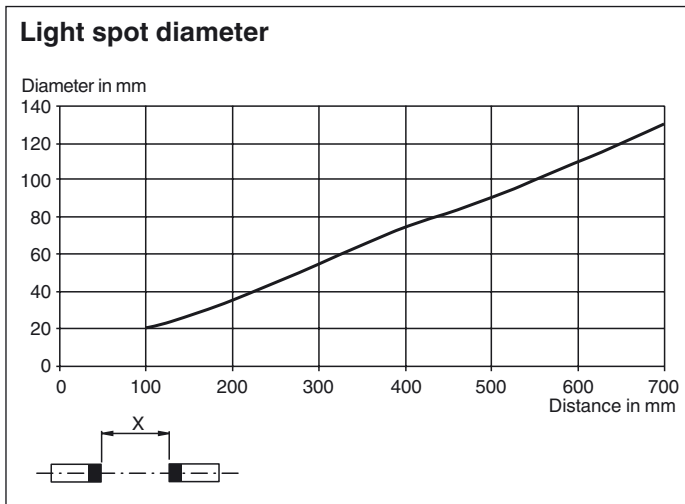
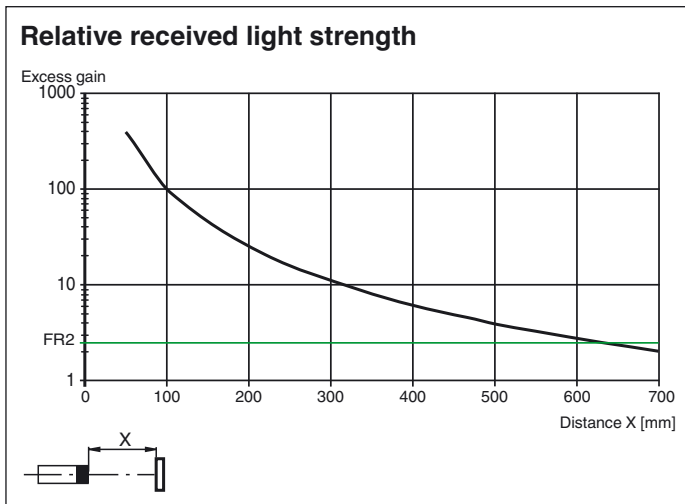
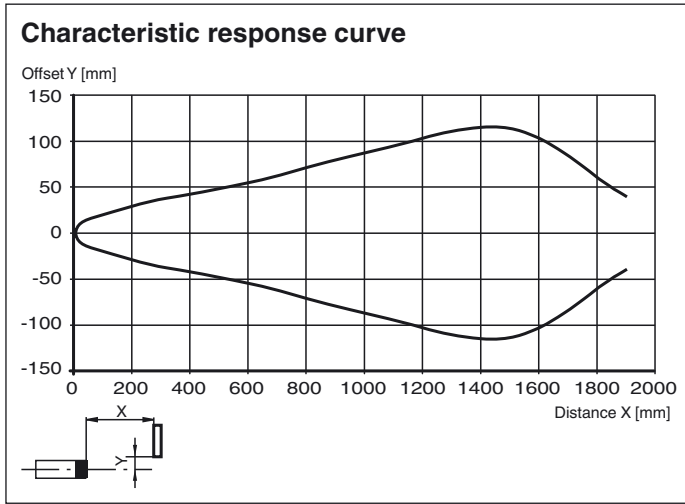
**Approvals and certificates**

UL approval	E87056 , cULus Recognized, Class 2 Power Source
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CCC approval	CCC approval / marking not required for products rated ≤36 V
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Other suitable accessories can be found at  
[www.pepperl-fuchs.com](http://www.pepperl-fuchs.com)

Curves/Diagrams



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