



**Model Number**

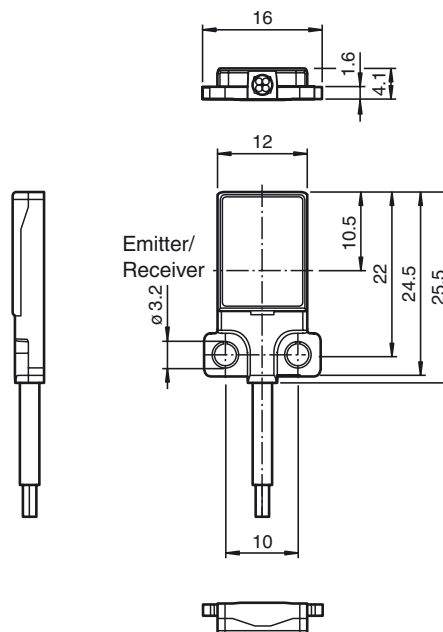
**OBE500-R3F-SE0**

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

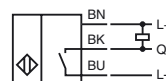
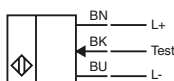
**Features**

- 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-R3F-S
Receiver	OBE500-R3F-E0

**General specifications**

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

**Functional safety related parameters**

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

**Indicators/operating means**

Operation indicator	LED green, statically lit Power on , short-circuit : LED green flashing (approx. 4 Hz)
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

**Electrical specifications**

Operating voltage	U <sub>B</sub>	10 ... 30 V DC
No-load supply current	I <sub>0</sub>	Emitter: ≤ 11 mA Receiver: ≤ 8 mA
Protection class		III

**Input**

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

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

**Conformity**

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

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

**Mechanical specifications**

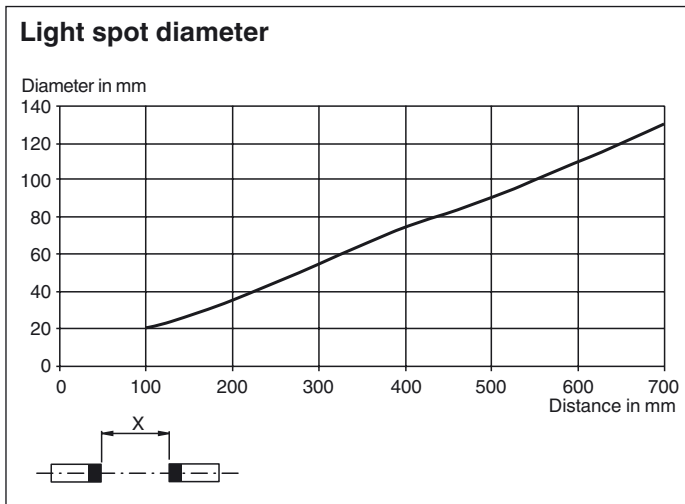
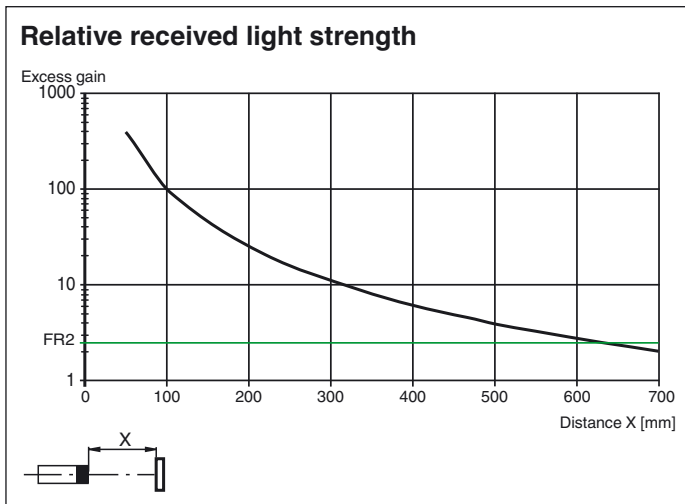
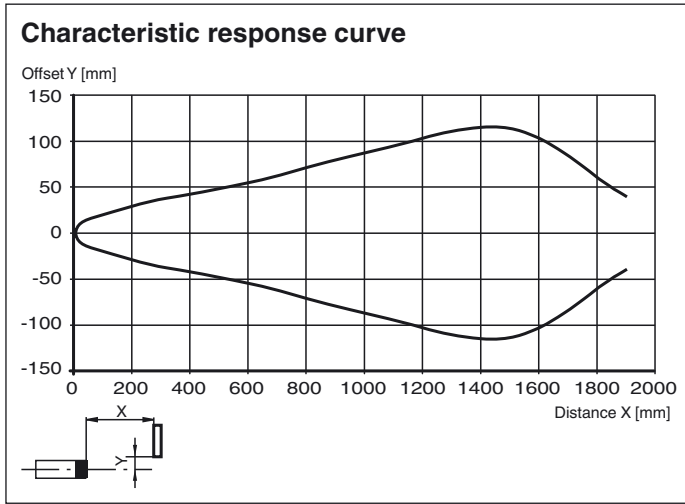
Housing width	16 mm
Housing height	25.5 mm
Housing depth	4.1 mm
Degree of protection	IP67
Connection	2 m fixed cable
Material	
Housing	PC (Polycarbonate) and Stainless steel
Optical face	PMMA
Cable	PUR
Mass	approx. 20 g Per sensor
Tightening torque, fastening screws	1 Nm
Cable length	2 m

**Approvals and certificates**

UL approval	E87056 , cULus Recognized, Class 2 Power Source
CCC approval	CCC approval / marking not required for products rated ≤36 V

Other suitable accessories can be found at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com)

Curves/Diagrams



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