



Model Number

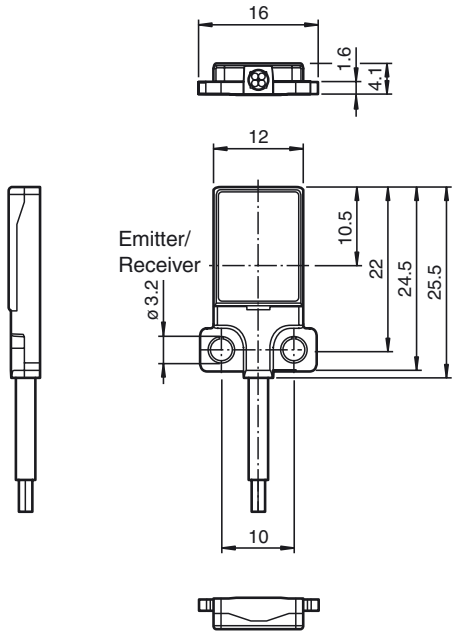
OBE500-R3F-SE0

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

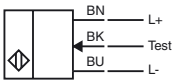
Features

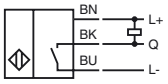
- Very flat design for direct mounting without mounting bracket
- Very bright, highly visible light spot

Dimensions



Electrical connection





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Technical data

System components		
Emitter		OBE500-R3F-S
Receiver		OBE500-R3F-E0
General specifications		
Effective detection range		0 ... 500 mm
Threshold detection range		700 mm
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		
$MTTF_d$		806 a
Mission Time (T_M)		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_B	10 ... 30 V DC
No-load supply current	I_0	Emitter: ≤ 11 mA Receiver: ≤ 8 mA
Protection class		III
Input		
Test input		Test of switching function at 0 V
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_d	≤ 1.5 V DC
Switching frequency	f	approx. 1 kHz
Response time		500 µs
Conformity		
Product standard		EN 60947-5-2
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

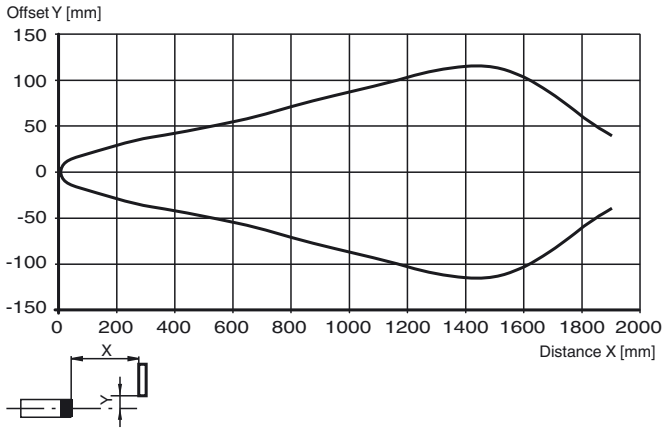
Other suitable accessories can be found at www.pepperl-fuchs.com

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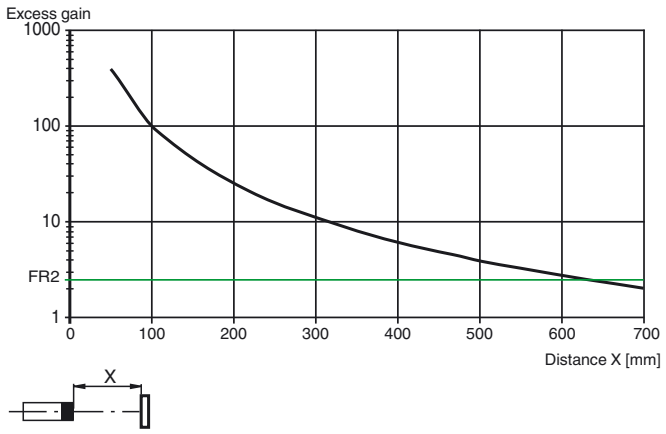
Refer to "General Notes Relating to Pepperl+Fuchs Product Information".
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PEPPERL+FUCHS

Curves/Diagrams

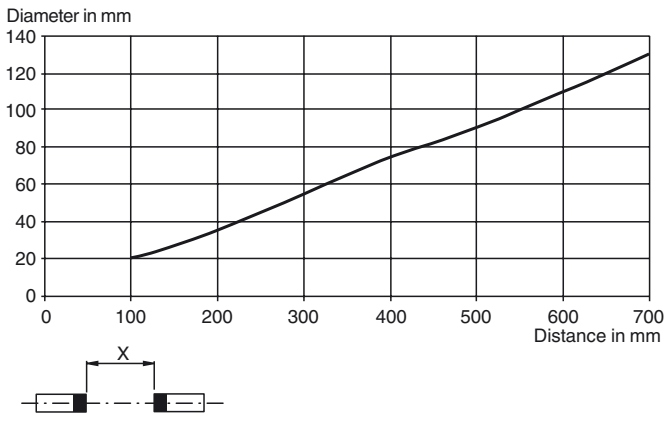
Characteristic response curve



Relative received light strength



Light spot diameter



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