



Model Number

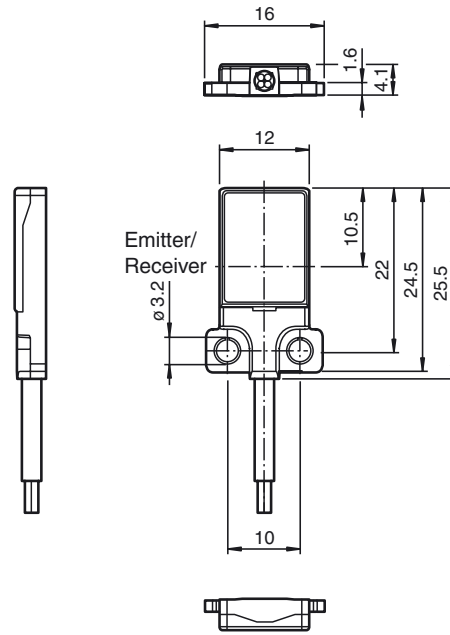
OBE500-R3F-SE0

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

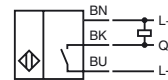
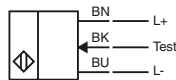
Features

- 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

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 I₀ 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

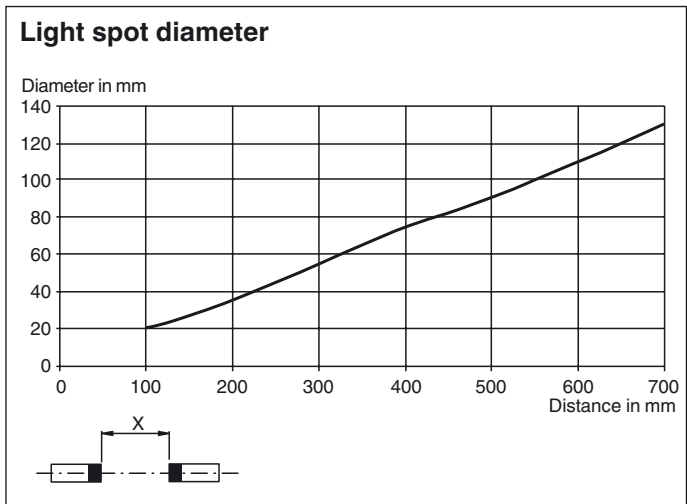
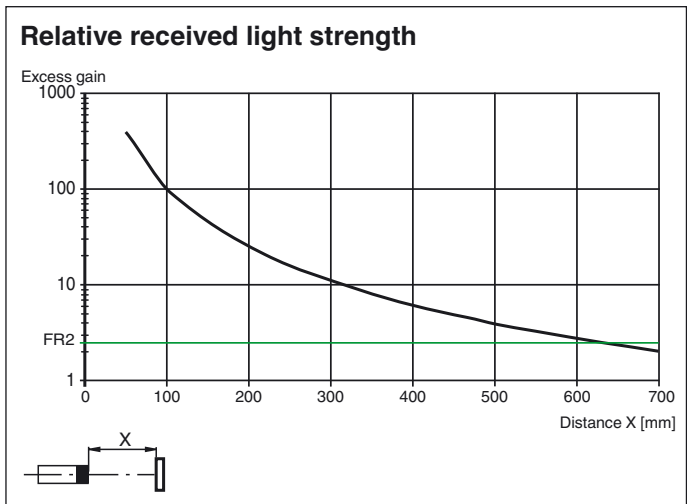
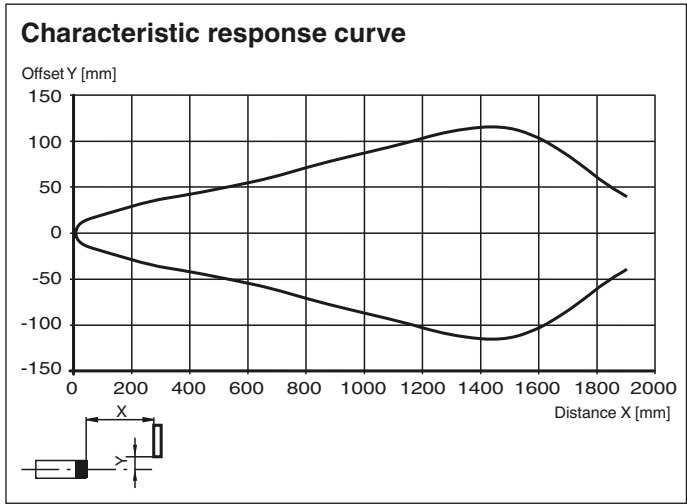
Approvals and certificates

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

Curves/Diagrams



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