

Thru-beam sensor (pair)

OBE500-R2F-SE1

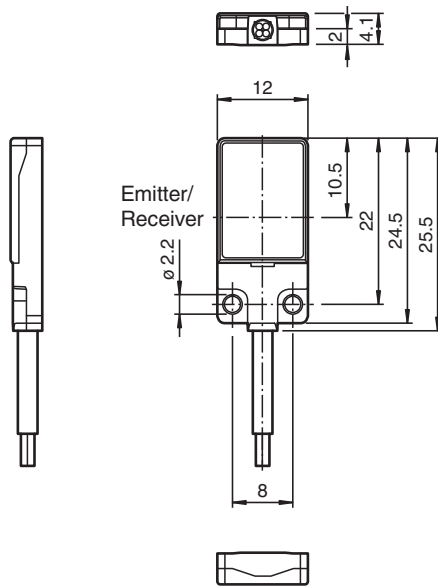


- Very flat design for direct mounting without mounting bracket
- Very bright, highly visible light spot

Thru-beam sensor, flat design, space-saving M2 mounting, 500 mm detection range, red light, light on, NPN output, fixed cable



Dimensions



Technical Data

System components

| | |
|----------|---------------|
| Emitter | OBE500-R2F-S |
| Receiver | OBE500-R2F-E1 |

General specifications

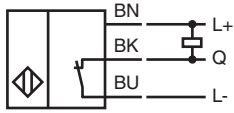
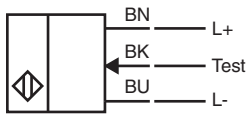
| | |
|---------------------------|--------------------------------------|
| Effective detection range | 0 ... 500 mm |
| Threshold detection range | 700 mm |
| Light source | LED |
| Light type | modulated visible red light , 630 nm |

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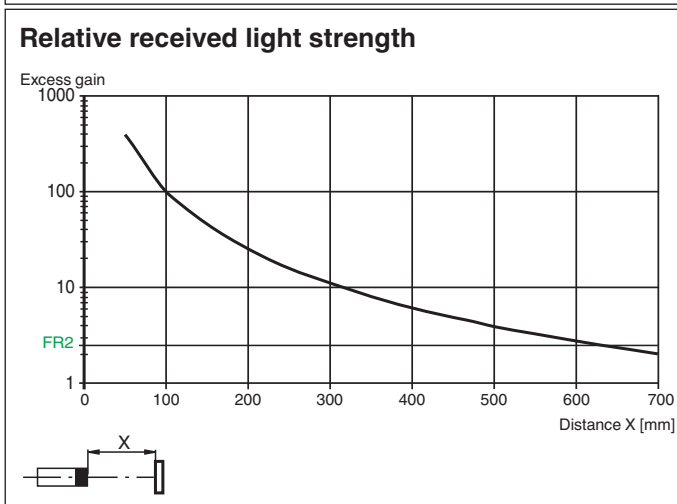
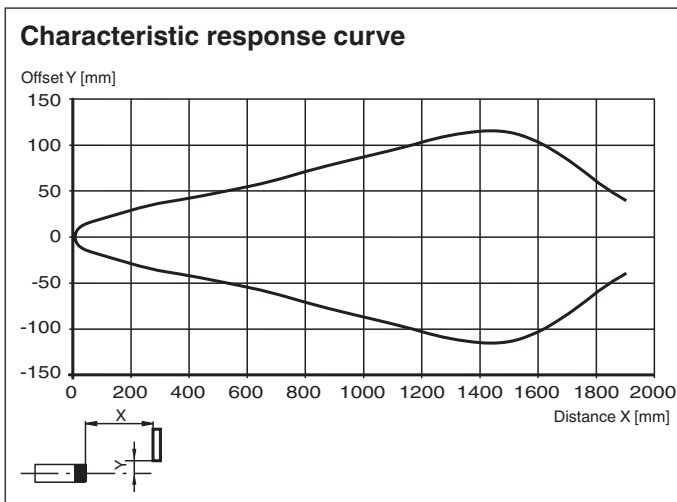
Technical Data

| | | |
|---|----------------|---|
| 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 |
| Opening angle | | 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 operating reserve ; OFF when light beam is interrupted |
| Electrical specifications | | |
| Operating voltage | U _B | 10 ... 30 V DC |
| No-load supply current | I ₀ | < 10 mA |
| Protection class | | III |
| Input | | |
| Test input | | Test of switching function at 0 V |
| Output | | |
| Switching type | | NC contact / light-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 |
| Approvals and certificates | | |
| UL approval | | E87056 , cULus Recognized, Class 2 Power Source |
| CCC approval | | CCC approval / marking not required for products rated ≤36 V |
| Ambient conditions | | |
| Ambient temperature | | -20 ... 60 °C (-4 ... 140 °F) |
| Storage temperature | | -20 ... 70 °C (-4 ... 158 °F) |
| Mechanical specifications | | |
| 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 | | 0.25 Nm |
| Dimensions | | |
| Height | | 25.5 mm |
| Width | | 12 mm |
| Depth | | 4.1 mm |
| Cable length | | 2 m |

Connection

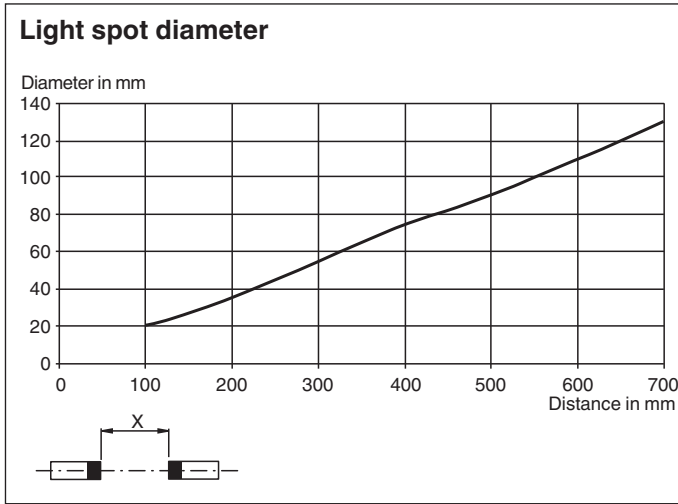


Characteristic Curve



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