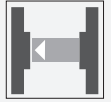




## Thru-beam sensor (pair)

### OBE25M-18GM60-SE4



- Strong metallic housing in cylindrical shape M18 x 1
- Not sensitive to ambient light
- Degree of protection IP67
- Very high detection range

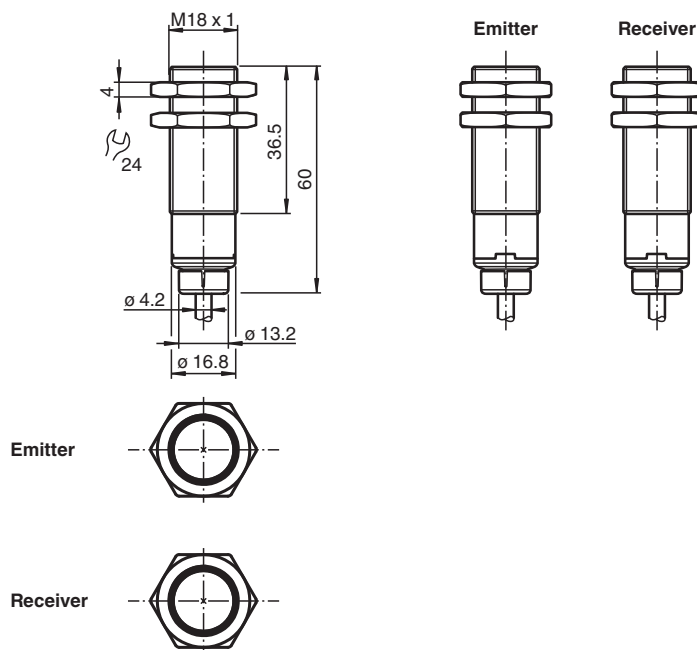
Thru-beam sensor (pair)



## Function

The optical sensors of this series have an M18 threaded housing that is optionally available in plastic or metal.  
The sensors are robust and versatile.  
Focusing on the essential requirements simplifies selection and commissioning, saving time and costs.

## Dimensions



## Technical Data

### System components

|          |                  |
|----------|------------------|
| Emitter  | OBE25M-18GM60-S  |
| Receiver | OBE25M-18GM60-E4 |

### General specifications

|                           |            |
|---------------------------|------------|
| Effective detection range | 0 ... 25 m |
|---------------------------|------------|

Release date: 2021-06-28 Date of issue: 2021-06-28 Filename: 70127731\_eng.pdf

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

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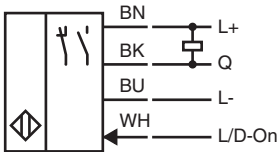
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**PEPPERL+FUCHS**

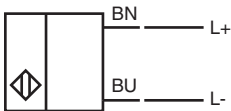
## Technical Data

|                                             |                                                                                                                                                      |
|---------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| Threshold detection range                   | 35 m                                                                                                                                                 |
| Light source                                | LED                                                                                                                                                  |
| Light type                                  | modulated visible red light                                                                                                                          |
| Diameter of the light spot                  | approx. 110 mm at 1 m                                                                                                                                |
| Angle of divergence                         | approx. 2.9 °                                                                                                                                        |
| Optical face                                | frontal                                                                                                                                              |
| Ambient light limit                         | EN 60947-5-2 10000 Lux                                                                                                                               |
| <b>Functional safety related parameters</b> |                                                                                                                                                      |
| MTTF <sub>d</sub>                           | 564 a                                                                                                                                                |
| Mission Time (T <sub>M</sub> )              | 20 a                                                                                                                                                 |
| Diagnostic Coverage (DC)                    | 0 %                                                                                                                                                  |
| <b>Indicators/operating means</b>           |                                                                                                                                                      |
| Operation indicator                         | LED green:<br>on - power on<br>flashing (4 Hz) - short circuit                                                                                       |
| Function indicator                          | Receiver: Yellow LED:<br>Permanently lit - light path clear<br>Permanently off - object detected<br>Flashing (4 Hz) - insufficient operating reserve |
| Control elements                            | light/dark on electrically switchable                                                                                                                |
| <b>Electrical specifications</b>            |                                                                                                                                                      |
| Operating voltage                           | U <sub>B</sub> 10 ... 30 V DC                                                                                                                        |
| Ripple                                      | max. 10 %                                                                                                                                            |
| No-load supply current                      | I <sub>0</sub> < 25 mA                                                                                                                               |
| Protection class                            | III                                                                                                                                                  |
| <b>Output</b>                               |                                                                                                                                                      |
| Switching type                              | The switching type of the sensor is adjustable. The default setting is: Q - Pin4: NPN output / dark-on L/D-On - WH: Low-active input                 |
| Signal output                               | 1 NPN output, short-circuit protected, reverse polarity protected, open collector                                                                    |
| Switching voltage                           | max. 30 V DC                                                                                                                                         |
| Switching current                           | max. 100 mA , resistive load                                                                                                                         |
| Voltage drop                                | U <sub>d</sub> ≤ 2 V DC                                                                                                                              |
| Switching frequency                         | f 500 Hz                                                                                                                                             |
| Response time                               | ≤ 1 ms                                                                                                                                               |
| <b>Conformity</b>                           |                                                                                                                                                      |
| Product standard                            | EN 60947-5-2                                                                                                                                         |
| <b>Approvals and certificates</b>           |                                                                                                                                                      |
| UL approval                                 | E87056 , cULus Listed , class 2 power supply , type rating 1                                                                                         |
| <b>Ambient conditions</b>                   |                                                                                                                                                      |
| Ambient temperature                         | -40 ... 60 °C (-40 ... 140 °F)                                                                                                                       |
| Storage temperature                         | -40 ... 70 °C (-40 ... 158 °F)                                                                                                                       |
| <b>Mechanical specifications</b>            |                                                                                                                                                      |
| Degree of protection                        | IP67                                                                                                                                                 |
| Connection                                  | 2 m fixed cable                                                                                                                                      |
| <b>Material</b>                             |                                                                                                                                                      |
| Housing                                     | brass, nickel-plated                                                                                                                                 |
| Optical face                                | PMMA                                                                                                                                                 |
| Cable                                       | PVC                                                                                                                                                  |
| Mass                                        | approx. 70 g per device                                                                                                                              |

Connection

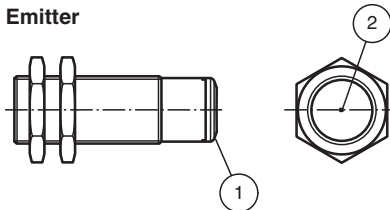


Connection Assignment



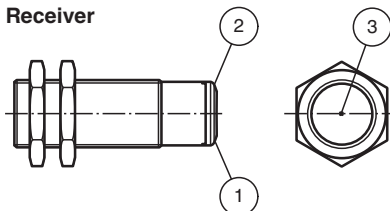
Indication

Emitter



|   |                   |       |
|---|-------------------|-------|
| 1 | Operating display | green |
| 2 | Emitter           |       |

Receiver



|   |                   |        |
|---|-------------------|--------|
| 1 | Operating display | green  |
| 2 | Signal display    | yellow |
| 3 | Receiver          |        |

Characteristic Curve

Characteristic response curve

