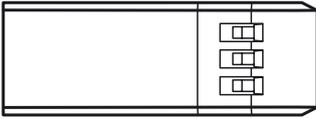


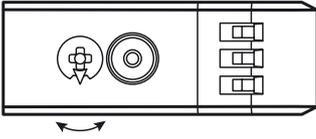
Indicators/operating means

Emitter



| | |
|---|---------------------|
| 1 | Operating indicator |
|---|---------------------|

Receiver



| | | |
|---|--------------------------------------|--|
| 1 | Sensitivity adjustment | |
| 2 | Light-on / dark-on changeover switch | |
| 3 | Operating indicator / dark on | |
| 4 | Signal indicator | |
| 5 | Operating indicator / light on | |

Accessories

IO-Link-Master02-USB

IO-Link master, supply via USB port or separate power supply, LED indicators, M12 plug for sensor connection

OMH-MLV12-HWK

Mounting bracket for series MLV12 sensors

OMH-R200-01

Mounting aid for round steel \varnothing 12 mm or sheet 1.5 mm ... 3 mm

OMH-R20x-Quick-Mount

Quick mounting accessory

OMH-MLV12-HWG

Mounting bracket for series MLV12 sensors

V1-G-2M-PUR

Female cordset, M12, 4-pin, PUR cable

V1-W-2M-PUR

Female cordset, M12, 4-pin, PUR cable

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

Technical data

| | | |
|---|----------------|---|
| System components | | |
| Emitter | | OBE25M-R200-S-IO-0,3M-V1 |
| Receiver | | OBE25M-R200-2EP-IO-0,3M-V1 |
| General specifications | | |
| Effective detection range | | 0 ... 25 m |
| Threshold detection range | | 33 m |
| Light source | | LED |
| Light type | | modulated visible red light |
| LED risk group labelling | | exempt group |
| Alignment aid | | LED red (in receiver lens) illuminated constantly: beam is interrupted, flashes: reaching switching point, off: sufficient stability control |
| Diameter of the light spot | | approx. 850 mm at a distance of 25 m |
| Angle of divergence | | approx. 2 ° |
| Ambient light limit | | EN 60947-5-2 : 40000 Lux |
| Functional safety related parameters | | |
| MTTF _d | | 462 a |
| Mission Time (T _M) | | 20 a |
| Diagnostic Coverage (DC) | | 60 % |
| Indicators/operating means | | |
| Operation indicator | | LED green: constantly on - power on flashing (4Hz) - short circuit flashing with short break (1 Hz) - IO-Link mode |
| Function indicator | | Yellow LED: Permanently lit - light path clear Permanently off - object detected Flashing (4 Hz) - insufficient operating reserve |
| Control elements | | Receiver: light/dark switch |
| Control elements | | Receiver: sensitivity adjustment |
| Electrical specifications | | |
| Operating voltage | U _B | 10 ... 30 V DC |
| Ripple | | max. 10 % |
| No-load supply current | I ₀ | Emitter: ≤ 15 mA Receiver: ≤ 15 mA at 24 V Operating voltage |
| Protection class | | III |
| Interface | | |
| Interface type | | IO-Link (via C/Q = pin 4) |
| Device profile | | Identification and diagnosis Smart Sensor: Receiver: type 2.4 Emitter: - |
| Transfer rate | | COM 2 (38.4 kBaud) |
| IO-Link Revision | | 1.1 |
| Min. cycle time | | 2.3 ms |
| Process data width | | Emitter: Process data input: 0 bit Process data output: 1 bit Receiver: Process data input: 2 bit Process data output: 2 bit |
| SIO mode support | | yes |
| Device ID | | Emitter: 0x111401 (1119233) Receiver: 0x111301 (1118977) |
| Compatible master port type | | A |
| Input | | |
| Test input | | emitter deactivation at +U _B |
| Output | | |
| Switching type | | The switching type of the sensor is adjustable. The default setting is: C/Q - Pin4: NPN normally open / dark-on, PNP normally closed / light-on, IO-Link /Q - Pin2: NPN normally closed / light-on, PNP normally open / dark-on |
| Signal output | | 2 push-pull (4 in 1) outputs, short-circuit protected, reverse polarity protected, overvoltage protected |
| Switching voltage | | max. 30 V DC |
| Switching current | | max. 100 mA , resistive load |
| Usage category | | DC-12 and DC-13 |
| Voltage drop | U _d | ≤ 1.5 V DC |
| Switching frequency | f | 1000 Hz |
| Response time | | 0.5 ms |
| Conformity | | |
| Communication interface | | IEC 61131-9 |
| Product standard | | EN 60947-5-2 |
| Ambient conditions | | |

Release date: 2018-05-22 17:11 Date of issue: 2019-10-31 301024_eng.xml

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

| | |
|---------------------|---|
| Ambient temperature | -40 ... 60 °C (-40 ... 140 °F) , fixed cable -20 ... 60 °C (-4 ... 140 °F) , movable cable not appropriate for conveyor chains |
| Storage temperature | -40 ... 70 °C (-40 ... 158 °F) |

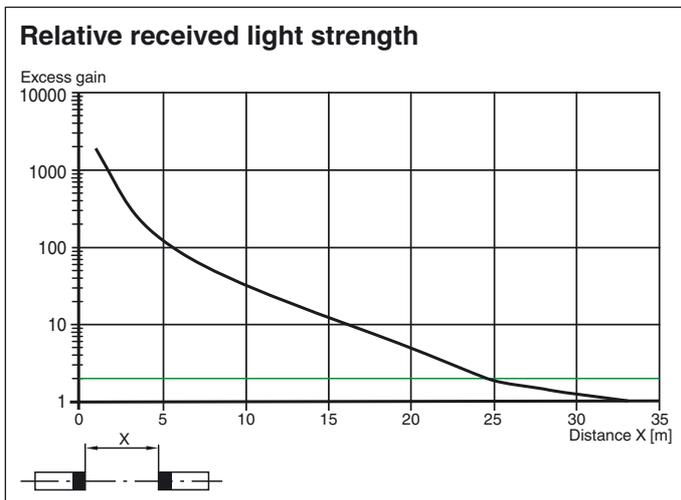
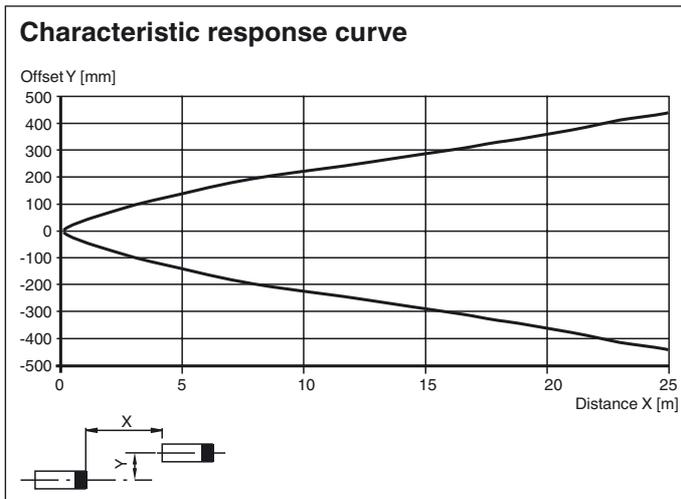
Mechanical specifications

| | |
|----------------------|--|
| Housing width | 15 mm |
| Housing height | 50.6 mm |
| Housing depth | 41.7 mm |
| Degree of protection | IP67 / IP69 / IP69K |
| Connection | 300 mm fixed cable with M12 x 1, 4-pin connector |
| Material | |
| Housing | PC (Polycarbonate) |
| Optical face | PMMA |
| Mass | Emitter: approx. 45 g receiver: approx. 45 g |
| Cable length | 0.3 m |

Approvals and certificates

| | |
|--------------|--|
| UL approval | E87056 , cULus Listed , class 2 power supply , type rating 1 |
| CCC approval | CCC approval / marking not required for products rated ≤36 V |

Curves/Diagrams



Functions and Operation

To unlock the adjustment functions turn the sensing range /sensitivity adjuster for more than 180 degrees.

Sensing Range / Sensitivity

Turn sensing range / sensitivity adjuster clockwise to increase sensing range / sensitivity.

Turn sensing range / sensitivity adjuster counter clockwise to decrease sensing range / sensitivity.

If the end of the adjustment range is reached, the signal indicator starts flashing with 8 Hz.

Light-on / Dark-on Configuration

Press the light-on / dark-on changeover switch for more than 1 second (less than 4 seconds). The light-on / dark-on mode changes and the operating indicators are activated accordingly.

Release date: 2018-05-22 17:11 Date of issue: 2019-10-31 301024_eng.xml

If you press the light-on / dark-on changeover switch for more than 4 seconds, the light-on /dark-on mode changes back to the original setting. On release of the light-on / dark-on changeover switch the current state is activated.

Restore Factory Settings

Press the light-on / dark-on changeover switch for more than 10 seconds (less than 30 seconds) until all LEDs turn off. On release of the light-on / dark-on changeover switch the signal indicator turns on. After 5 seconds the sensor resumes operation with factory default settings.

After 5 minutes of inactivity the sensing range / sensitivity adjustment is locked. In order to reactivate the sensing range / sensitivity adjustment, turn the sensing range /sensitivity adjuster for more than 180 degrees.