

# Photoelectric Sensors

## Maximum Efficiency Through High-Performance Technology

Photoelectric sensors from Pepperl+Fuchs offer innovative sensor solutions advanced through extensive experience and continuous development. Powerful technologies such as Pulse Ranging Technology, Multi Pixel Technology, and end-to-end IO-Link integration guarantee highly efficient applications.

### Innovations for Industrial Automation

With the development of its Pulse Ranging Technology (PRT), Pepperl+Fuchs unlocked the potential to use direct light runtime measurement in commercial industries for the first time. The world's first 360° 2-D laser scanner R2000 completely revolutionized the navigation of driverless transportation systems. With innovations such as these, Pepperl+Fuchs has shaped the world of automation from the very beginning. Continuous development enables you to carry on creating new, even more efficient application solutions, both now and in the future.

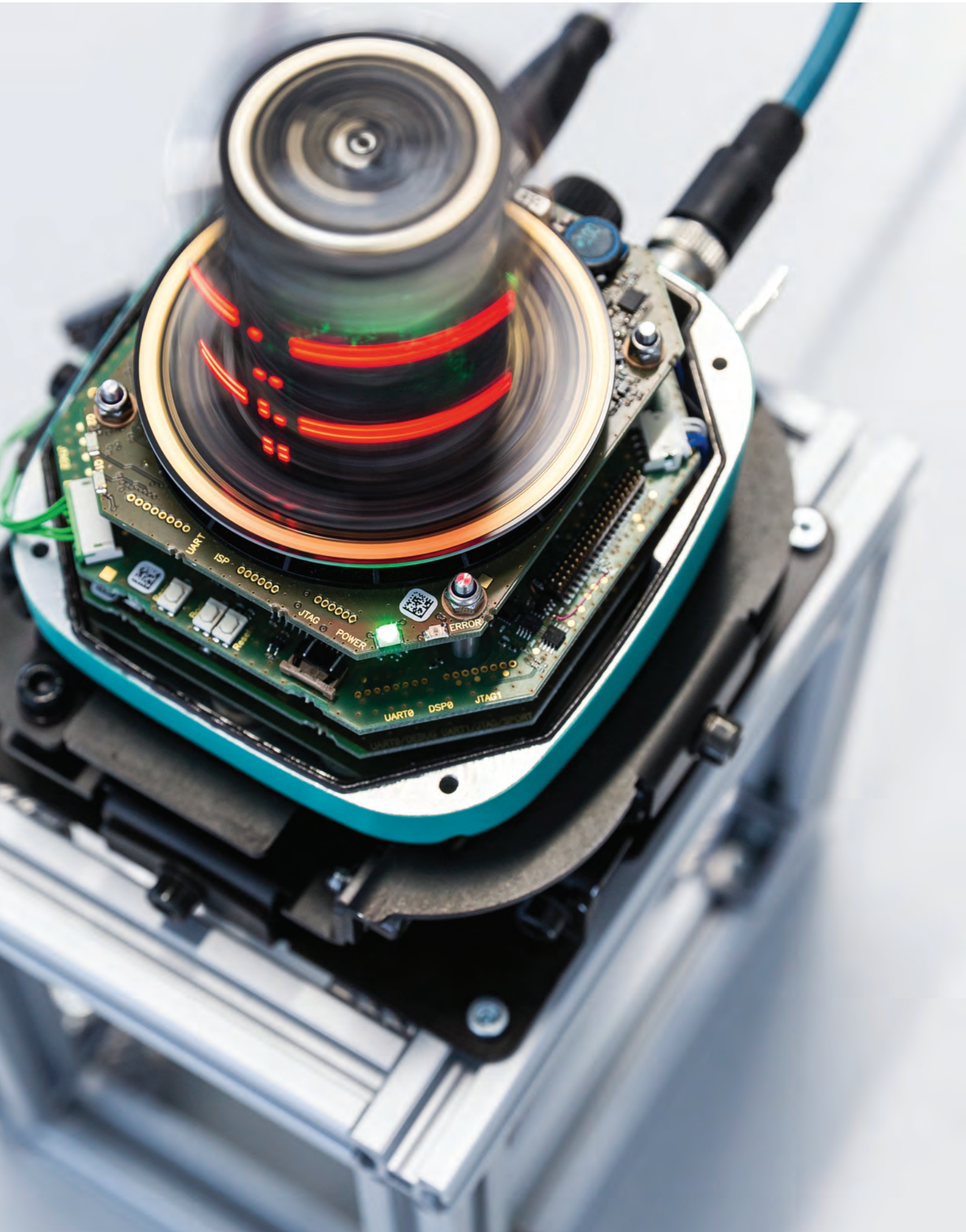
### Outstanding Flexibility with a Coordinated Portfolio

Tailored to the requirements of industrial automation, the portfolio of photoelectric sensors delivers the right solution for every application, every time. Various function principles, from classic thru-beam sensors and diffuse mode sensors to high-performance distance sensors, are available in miniature, standard, and special designs.



More information is available at:  
[www.pepperl-fuchs.com/fa-opto](http://www.pepperl-fuchs.com/fa-opto)





# Light Barriers / Diffuse Mode Sensors

## Flexibility Redefined

The overarching concept of optoelectronic standard light barriers is to integrate multiple function principles end-to-end into identical standard designs. This means that regardless of the installation situation, the right sensor is always available as a thru-beam sensor, retroreflective sensor, diffuse mode sensor, or switching sensor with measurement core.



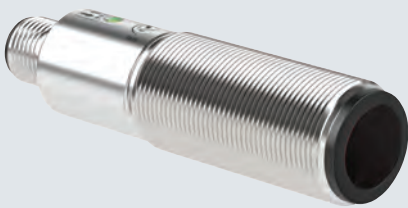
### Typical Applications

- Small part detection
- Component inspection for printed circuit boards
- Front edge detection on conveyor belts
- Detection of transparent objects
- Object positioning

### Your Benefits at a Glance

- End-to-end integration of photoelectric function principles into identical standard designs for outstanding flexibility
- Choice of various cubic and cylindrical standard designs
- Innovative DuraBeam laser technology for extra-long service life and increased operating temperature range, even in especially small designs
- Communication down to sensor level with IO-Link





### Technical Features

- A complete portfolio of function principles is available, from thru-beam sensors, retroreflective sensors, and diffuse mode sensors to special function principles such as switching sensors with measurement cores (available in the R10x series, among others)
- Various light sources (red light, infrared light, and laser) for optimal adaptation to the application
- Comprehensive range of accessories for mounting brackets, reflectors, and alignment aids
- Degree of protection of up to IP69K



### Multi Pixel Technology (MPT) for Precise, Near-Range Distance Measurement

Distance sensors are also available in small to medium-sized standard designs. The compact size of the measurement core enables the most precise, reliable, and adaptable distance measurement for near-range applications.

More information is available at:  
[www.pepperl-fuchs.com/fa-mpt](http://www.pepperl-fuchs.com/fa-mpt)





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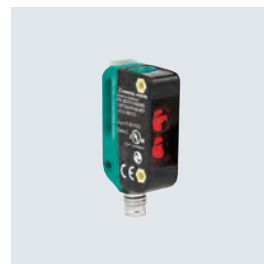
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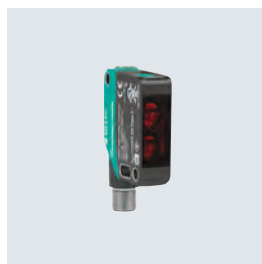
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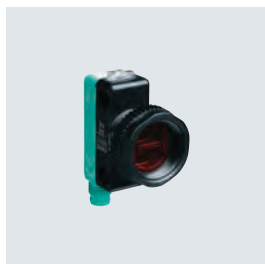
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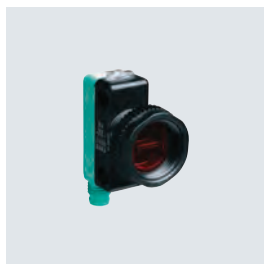
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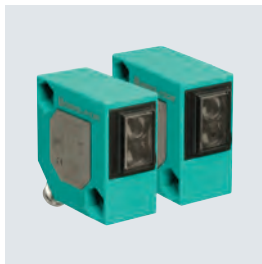
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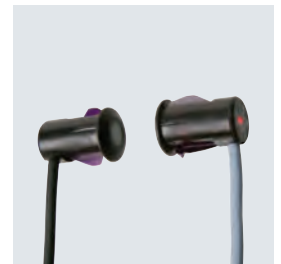
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# R2 Series Thru-Beam Sensors

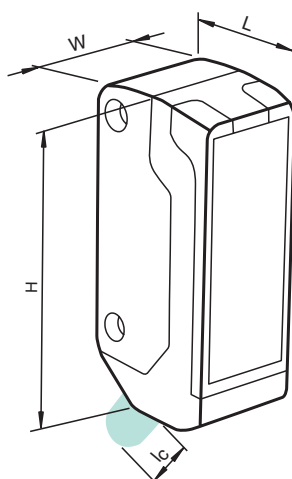


### Standard Technical Data

|                           |                  |
|---------------------------|------------------|
| <b>Function principle</b> | Thru-beam sensor |
| <b>Voltage type</b>       | DC               |
| <b>Housing length L</b>   | 11.2 mm          |
| <b>Housing width W</b>    | 7.5 mm           |
| <b>Housing height H</b>   | 24 mm            |
| <b>UL</b>                 | ■                |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number              | Detection range [mm] | Light type      | Output type | UB (min) | UB (max) | Connection type          |
|---------------------------|----------------------|-----------------|-------------|----------|----------|--------------------------|
| OBE1000-R2-SE0-L          | 1000                 | Red laser diode | NPN         | 12       | 24       | Fixed cable              |
| OBE1000-R2-SE2-0,2M-V31-L | 1000                 | Red laser diode | PNP         | 12       | 24       | Fixed cable with M8 plug |
| OBE1000-R2-SE2-L          | 1000                 | Red laser diode | PNP         | 12       | 24       | Fixed cable              |
| OBE2000-R2-SE0            | 2000                 | Red LED         | NPN         | 10       | 30       | Fixed cable              |
| OBE2000-R2-SE0-0,2M-V31   | 2000                 | Red LED         | NPN         | 10       | 30       | Fixed cable with M8 plug |
| OBE2000-R2-SE2            | 2000                 | Red LED         | PNP         | 10       | 30       | Fixed cable              |
| OBE2000-R2-SE2-0,2M-V31   | 2000                 | Red LED         | PNP         | 10       | 30       | Fixed cable with M8 plug |
| OBE2000-R2-SE3            | 2000                 | Red LED         | PNP         | 10       | 30       | Fixed cable              |
| OBE10M-R2-SE0-L           | 10000                | Red laser diode | NPN         | 12       | 24       | Fixed cable              |
| OBE10M-R2-SE2-0,2M-V31-L  | 10000                | Red laser diode | PNP         | 12       | 24       | Fixed cable with M8 plug |
| OBE10M-R2-SE2-L           | 10000                | Red laser diode | PNP         | 12       | 24       | Fixed cable              |



### Accessories

|                      |   |
|----------------------|---|
| <b>MH-R2-01</b>      | Mounting aid for sensors from the R2 series, mounting bracket |
| <b>MH-R2-02</b>      | Mounting aid for sensors from the R2 series, mounting bracket |
| <b>MH-R2-03</b>      | Mounting aid for sensors from the R2 series, mounting bracket |
| <b>MH-R2-04</b>      | Mounting aid for sensors from the R2 series, mounting bracket |
| <b>V31-WM-2M-PUR</b> | Single-ended female cordset, M8, 4-pin, PUR cable             |

## R2 Series Retroreflective Sensors

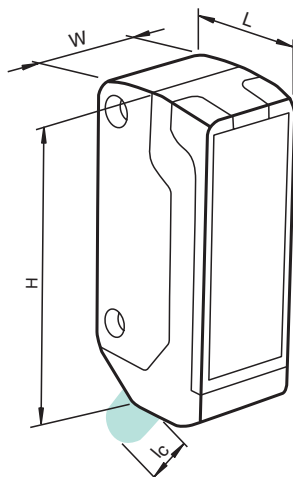


### Standard Technical Data

|                           |   |
|---------------------------|---|
| <b>Function principle</b> | Retroreflective sensor with polarization filter |
| <b>Voltage type</b>       | DC  |
| <b>Housing length L</b>   | 11.2 mm   |
| <b>Housing width W</b>    | 7.5 mm  |
| <b>Housing height H</b>   | 24 mm   |
| <b>UL</b>                 | ■   |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number                    | Detection range [mm] | Light type      | Output type | UB (min) | UB (max) | Connection type          |
|---------------------------------|----------------------|-----------------|-------------|----------|----------|--------------------------|
| <b>OBR1000-R2-E0</b>            | 1000                 | Red LED         | NPN         | 10       | 30       | Fixed cable              |
| <b>OBR1000-R2-E0-0,4M-V3</b>    | 1000                 | Red LED         | NPN         | 10       | 30       | Other                    |
| <b>OBR1000-R2-E2</b>            | 1000                 | Red LED         | PNP         | 10       | 30       | Fixed cable              |
| <b>OBR1000-R2-E2-0,2M-V3</b>    | 1000                 | Red LED         | PNP         | 10       | 30       | Fixed cable with M8 plug |
| <b>OBR1000-R2-E2-0,2M-V31</b>   | 1000                 | Red LED         | PNP         | 10       | 30       | Fixed cable with M8 plug |
| <b>OBR2000-R2-E0-L</b>          | 2000                 | Red laser diode | NPN         | 12       | 24       | Fixed cable              |
| <b>OBR2000-R2-E2-0,2M-V31-L</b> | 2000                 | Red laser diode | PNP         | 12       | 24       | Fixed cable with M8 plug |
| <b>OBR2000-R2-E2-L</b>          | 2000                 | Red laser diode | PNP         | 12       | 24       | Fixed cable              |



### Accessories

|                      |  |
|----------------------|--|
| <b>MH-R2-02</b>      | Mounting aid for sensors from the R2 series, mounting bracket                      |
| <b>MH-R2-03</b>      | Mounting aid for sensors from the R2 series, mounting bracket                      |
| <b>MH-R2-04</b>      | Mounting aid for sensors from the R2 series, mounting bracket                      |
| <b>REF-H40</b>       | Rectangular reflector, 47.5 mm x 23.5 mm, mounting holes, retaining tab            |
| <b>REF-MH20</b>      | Rectangular reflector with microstructure, 32 mm x 20 mm, mounting holes           |
| <b>REF-MH23</b>      | Rectangular reflector with microstructure, 23 mm x 13.8 mm, diagonal mounting hole |
| <b>V31-GM-2M-PUR</b> | Single-ended female cordset, M8, 4-pin, PUR cable                                  |
| <b>V3-WM-2M-PUR</b>  | Single-ended female cordset, M8, 3-pin, PUR cable                                  |



## R2 Series

### Diffuse Mode Sensors



#### Standard Technical Data

|                  |         |
|------------------|---------|
| Voltage type     | DC      |
| Housing length L | 11.2 mm |
| Housing width W  | 7.5 mm  |
| Housing height H | 24 mm   |
| UL               | ■       |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number           | Function principle          | Detection range [mm] | Light type      | Output type | UB (min) | UB (max) | Connection type          |
|------------------------|-----------------------------|----------------------|-----------------|-------------|----------|----------|--------------------------|
| OBT15-R2-E0            | With background suppression | 15                   | Red LED         | NPN         | 10       | 30       | Fixed cable              |
| OBT15-R2-E0-1T         | With background evaluation  | 15                   | Red LED         | NPN         | 10       | 30       | Fixed cable              |
| OBT15-R2-E0-L          | With background suppression | 15                   | Red laser diode | NPN         | 12       | 24       | Fixed cable              |
| OBT15-R2-E2            | With background suppression | 15                   | Red LED         | PNP         | 10       | 30       | Fixed cable              |
| OBT15-R2-E2-0,2M-V3    | With background suppression | 15                   | Red LED         | PNP         | 10       | 30       | Fixed cable with M8 plug |
| OBT15-R2-E2-0,2M-V31   | With background suppression | 15                   | Red LED         | PNP         | 10       | 30       | Fixed cable with M8 plug |
| OBT15-R2-E2-0,2M-V31-L | With background suppression | 15                   | Red laser diode | PNP         | 12       | 24       | Fixed cable with M8 plug |
| OBT15-R2-E2-1T         | With background evaluation  | 15                   | Red LED         | PNP         | 10       | 30       | Fixed cable              |
| OBT15-R2-E2-L          | With background suppression | 15                   | Red laser diode | PNP         | 12       | 24       | Fixed cable              |
| OBT20-R2-E0            | With background suppression | 20                   | Red LED         | NPN         | 10       | 30       | Fixed cable              |
| OBT20-R2-E2-0,2M-V31   | With background suppression | 20                   | Red LED         | PNP         | 10       | 30       | Fixed cable with M8 plug |
| OBT30-R2-E0            | With background suppression | 30                   | Red LED         | NPN         | 10       | 30       | Fixed cable              |
| OBT30-R2-E0-0,4M-V3    | With background suppression | 30                   | Red LED         | NPN         | 10       | 30       | Other                    |
| OBT30-R2-E0-1T         | With background evaluation  | 30                   | Red LED         | NPN         | 10       | 30       | Fixed cable              |
| OBT30-R2-E0-L          | With background suppression | 30                   | Red laser diode | NPN         | 12       | 24       | Fixed cable              |
| OBT30-R2-E2            | With background suppression | 30                   | Red LED         | PNP         | 10       | 30       | Fixed cable              |
| OBT30-R2-E2-0,2M-V3    | With background suppression | 30                   | Red LED         | PNP         | 10       | 30       | Fixed cable with M8 plug |
| OBT30-R2-E2-0,2M-V31   | With background suppression | 30                   | Red LED         | PNP         | 10       | 30       | Fixed cable with M8 plug |
| OBT30-R2-E2-0,2M-V31-L | With background suppression | 30                   | Red laser diode | PNP         | 12       | 24       | Fixed cable with M8 plug |
| OBT30-R2-E2-1T         | With background evaluation  | 30                   | Red LED         | PNP         | 10       | 30       | Fixed cable              |
| OBT30-R2-E2-L          | With background suppression | 30                   | Red laser diode | PNP         | 12       | 24       | Fixed cable              |
| OBT40-R2-E0            | With background suppression | 40                   | Red LED         | NPN         | 10       | 30       | Fixed cable              |
| OBT40-R2-E2-0,2M-V31   | With background suppression | 40                   | Red LED         | PNP         | 10       | 30       | Fixed cable with M8 plug |
| OBT50-R2-E0            | With background suppression | 50                   | Red LED         | NPN         | 10       | 30       | Fixed cable              |
| OBT50-R2-E0-1T         | With background evaluation  | 50                   | Red LED         | NPN         | 10       | 30       | Fixed cable              |
| OBT50-R2-E0-L          | With background suppression | 50                   | Red laser diode | NPN         | 12       | 24       | Fixed cable              |
| OBT50-R2-E2            | With background suppression | 50                   | Red LED         | PNP         | 10       | 30       | Fixed cable              |
| OBT50-R2-E2-0,2M-V3    | With background suppression | 50                   | Red LED         | PNP         | 10       | 30       | Fixed cable with M8 plug |
| OBT50-R2-E2-0,2M-V31   | With background suppression | 50                   | Red LED         | PNP         | 10       | 30       | Fixed cable with M8 plug |
| OBT50-R2-E2-0,2M-V31-L | With background suppression | 50                   | Red laser diode | PNP         | 12       | 24       | Fixed cable with M8 plug |
| OBT50-R2-E2-1T         | With background evaluation  | 50                   | Red LED         | PNP         | 10       | 30       | Fixed cable              |
| OBT50-R2-E2-L          | With background suppression | 50                   | Red laser diode | PNP         | 12       | 24       | Fixed cable              |
| OBT50-R2-E3-0,2M-V31   | With background suppression | 50                   | Red LED         | PNP         | 10       | 30       | Fixed cable with M8 plug |
| OBT80-R2-E0            | With background suppression | 80                   | Red LED         | NPN         | 10       | 30       | Fixed cable              |
| OBT80-R2-E0-L          | With background suppression | 80                   | Red laser diode | NPN         | 12       | 24       | Fixed cable              |
| OBT80-R2-E2            | With background suppression | 80                   | Red LED         | PNP         | 10       | 30       | Fixed cable              |
| OBT80-R2-E2-0,2M-V3    | With background suppression | 80                   | Red LED         | PNP         | 10       | 30       | Fixed cable with M8 plug |
| OBT80-R2-E2-0,2M-V31   | With background suppression | 80                   | Red LED         | PNP         | 10       | 30       | Fixed cable with M8 plug |
| OBT80-R2-E2-0,2M-V31-L | With background suppression | 80                   | Red laser diode | PNP         | 12       | 24       | Fixed cable with M8 plug |
| OBT80-R2-E2-L          | With background suppression | 80                   | Red laser diode | PNP         | 12       | 24       | Fixed cable              |

# R2F Series Thru-Beam Sensors



### Standard Technical Data

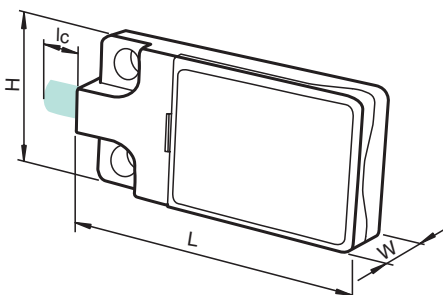
|                           |                  |
|---------------------------|------------------|
| <b>Function principle</b> | Thru-beam sensor |
| <b>Voltage type</b>       | DC               |
| <b>Housing length L</b>   | 4.1 mm           |
| <b>Housing width W</b>    | 12 mm            |
| <b>Housing height H</b>   | 25.5 mm          |
| <b>UL</b>                 | ■                |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number               | Detection range [mm] | Light type      | Output type | UB (min) | UB (max) | Connection type          |
|----------------------------|----------------------|-----------------|-------------|----------|----------|--------------------------|
| OBE500-R2F-SE0             | 500                  | Red LED         | NPN         | 10       | 30       | Fixed cable              |
| OBE500-R2F-SE0-L           | 500                  | Red laser diode | NPN         | 12       | 24       | Fixed cable              |
| OBE500-R2F-SE2             | 500                  | Red LED         | PNP         | 10       | 30       | Fixed cable              |
| OBE500-R2F-SE2-0,2M-V31    | 500                  | Red LED         | PNP         | 10       | 30       | Fixed cable with M8 plug |
| OBE500-R2F-SE2-0,2M-V31-L  | 500                  | Red laser diode | PNP         | 12       | 24       | Fixed cable with M8 plug |
| OBE500-R2F-SE2-L           | 500                  | Red laser diode | PNP         | 12       | 24       | Fixed cable              |
| OBE1500-R2F-SE0-L          | 1500                 | Red laser diode | NPN         | 12       | 24       | Fixed cable              |
| OBE1500-R2F-SE2-0,2M-V31-L | 1500                 | Red laser diode | PNP         | 12       | 24       | Fixed cable with M8 plug |
| OBE1500-R2F-SE2-L          | 1500                 | Red laser diode | PNP         | 12       | 24       | Fixed cable              |

### Accessories

|                      |   |
|----------------------|---|
| <b>V31-GM-2M-PUR</b> | Single-ended female cordset, M8, 4-pin, PUR cable |
| <b>V31-WM-2M-PUR</b> | Single-ended female cordset, M8, 4-pin, PUR cable |



# R2F Series Retroreflective Sensors

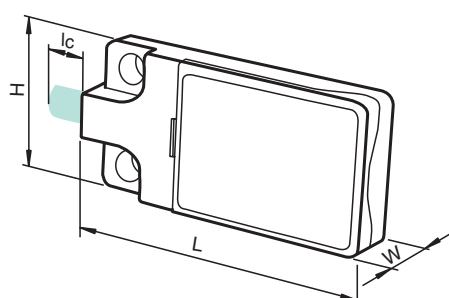


### Standard Technical Data

|                                |   |
|--------------------------------|---|
| <b>Function principle</b>      | Retroreflective sensor with polarization filter |
| <b>Detection range</b>         | 1500 mm   |
| <b>Light type</b>              | Red laser diode                                 |
| <b>Voltage type</b>            | DC  |
| <b>Operating voltage (min)</b> | 12 V  |
| <b>Operating voltage (max)</b> | 24 V  |
| <b>Housing length L</b>        | 4.1 mm  |
| <b>Housing width W</b>         | 12 mm   |
| <b>Housing height H</b>        | 25.5 mm   |
| <b>UL</b>                      | ■   |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number              | Output type | Connection type          |
|---------------------------|-------------|--------------------------|
| OBR1500-R2F-E0-L          | NPN         | Fixed cable              |
| OBR1500-R2F-E2-0,2M-V31-L | PNP         | Fixed cable with M8 plug |
| OBR1500-R2F-E2-L          | PNP         | Fixed cable              |



### Accessories

|                      |  |
|----------------------|--|
| <b>REF-H40</b>       | Rectangular reflector, 47.5 mm x 23.5 mm, mounting holes, retaining tab            |
| <b>REF-MH20</b>      | Rectangular reflector with microstructure, 32 mm x 20 mm, mounting holes           |
| <b>REF-MH23</b>      | Rectangular reflector with microstructure, 23 mm x 13.8 mm, diagonal mounting hole |
| <b>V31-GM-2M-PUR</b> | Single-ended female cordset, M8, 4-pin, PUR cable                                  |
| <b>V31-WM-2M-PUR</b> | Single-ended female cordset, M8, 4-pin, PUR cable                                  |



# R2F Series Diffuse Mode Sensors



### Standard Technical Data

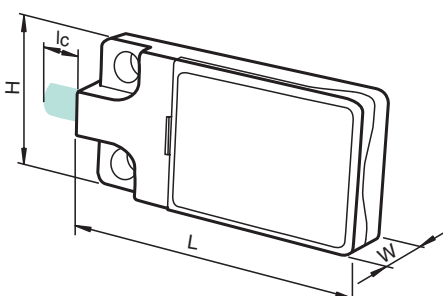
|                           |  |
|---------------------------|--|
| <b>Function principle</b> | Triangulation sensor with background suppression |
| <b>Voltage type</b>       | DC   |
| <b>Housing length L</b>   | 4.1 mm   |
| <b>Housing width W</b>    | 12 mm  |
| <b>Housing height H</b>   | 25.5 mm  |
| <b>UL</b>                 | ■  |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number            | Detection range [mm] | Light type      | Output type | UB (min) | UB (max) | Connection type          |
|-------------------------|----------------------|-----------------|-------------|----------|----------|--------------------------|
| OBT15-R2F-E0            | 15                   | Red LED         | NPN         | 10       | 30       | Fixed cable              |
| OBT15-R2F-E0-L          | 15                   | Red laser diode | NPN         | 12       | 24       | Fixed cable              |
| OBT15-R2F-E2            | 15                   | Red LED         | PNP         | 10       | 30       | Fixed cable              |
| OBT15-R2F-E2-0,2M-V31   | 15                   | Red LED         | PNP         | 10       | 30       | Fixed cable with M8 plug |
| OBT15-R2F-E2-0,2M-V31-L | 15                   | Red laser diode | PNP         | 12       | 24       | Fixed cable with M8 plug |
| OBT15-R2F-E2-L          | 15                   | Red laser diode | PNP         | 12       | 24       | Fixed cable              |
| OBT30-R2F-E0            | 30                   | Red LED         | NPN         | 10       | 30       | Fixed cable              |
| OBT30-R2F-E0-L          | 30                   | Red laser diode | NPN         | 12       | 24       | Fixed cable              |
| OBT30-R2F-E2            | 30                   | Red LED         | PNP         | 10       | 30       | Fixed cable              |
| OBT30-R2F-E2-0,2M-V31   | 30                   | Red LED         | PNP         | 10       | 30       | Fixed cable with M8 plug |
| OBT30-R2F-E2-0,2M-V31-L | 30                   | Red laser diode | PNP         | 12       | 24       | Fixed cable with M8 plug |
| OBT30-R2F-E2-L          | 30                   | Red laser diode | PNP         | 12       | 24       | Fixed cable              |

### Accessories

|                      |   |
|----------------------|---|
| <b>V31-GM-2M-PUR</b> | Single-ended female cordset, M8, 4-pin, PUR cable |
| <b>V31-WM-2M-PUR</b> | Single-ended female cordset, M8, 4-pin, PUR cable |



# R3 Series Thru-Beam Sensors

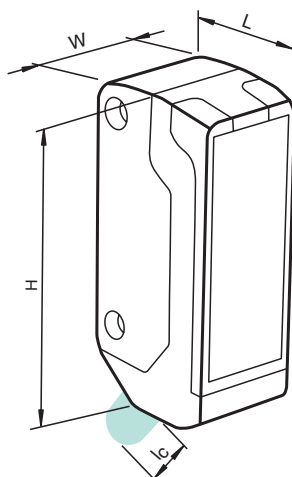


### Standard Technical Data

|                           |                  |
|---------------------------|------------------|
| <b>Function principle</b> | Thru-beam sensor |
| <b>Voltage type</b>       | DC               |
| <b>Housing length L</b>   | 13.8 mm          |
| <b>Housing width W</b>    | 7.5 mm           |
| <b>Housing height H</b>   | 26 mm            |
| <b>UL</b>                 | ■                |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number              | Detection range [mm] | Light type      | Output type | UB (min) | UB (max) | Connection type          |
|---------------------------|----------------------|-----------------|-------------|----------|----------|--------------------------|
| OBE1000-R3-SE0-L          | 1000                 | Red laser diode | NPN         | 12       | 24       | Fixed cable              |
| OBE1000-R3-SE2-0,2M-V31-L | 1000                 | Red laser diode | PNP         | 12       | 24       | Fixed cable with M8 plug |
| OBE1000-R3-SE2-L          | 1000                 | Red laser diode | PNP         | 12       | 24       | Fixed cable              |
| OBE2000-R3-E2-0,2M-V3     | 2000                 | Red LED         | PNP         | 10       | 30       | Fixed cable with M8 plug |
| OBE2000-R3-E3-0,2M-V3     | 2000                 | Red LED         | PNP         | 10       | 30       | Fixed cable with M8 plug |
| OBE2000-R3-SE0            | 2000                 | Red LED         | NPN         | 10       | 30       | Fixed cable              |
| OBE2000-R3-SE2            | 2000                 | Red LED         | PNP         | 10       | 30       | Fixed cable              |
| OBE2000-R3-SE2-0,2M-V3    | 2000                 | Red LED         | PNP         | 10       | 30       | Fixed cable with M8 plug |
| OBE2000-R3-SE2-0,2M-V31   | 2000                 | Red LED         | PNP         | 10       | 30       | Fixed cable with M8 plug |
| OBE10M-R3-SE0-L           | 10000                | Red laser diode | NPN         | 12       | 24       | Fixed cable              |
| OBE10M-R3-SE2-0,2M-V31-L  | 10000                | Red laser diode | PNP         | 12       | 24       | Fixed cable with M8 plug |
| OBE10M-R3-SE2-L           | 10000                | Red laser diode | PNP         | 12       | 24       | Fixed cable              |



### Accessories

|                      |   |
|----------------------|---|
| <b>MH-R3-01</b>      | Mounting aid for sensors from the R3 series, mounting bracket |
| <b>MH-R3-02</b>      | Mounting aid for sensors from the R3 series, mounting bracket |
| <b>MH-R3-04</b>      | Mounting aid for sensors from the R3 series, mounting bracket |
| <b>V3-WM-2M-PUR</b>  | Single-ended female cordset, M8, 3-pin, PUR cable             |
| <b>V31-GM-2M-PUR</b> | Single-ended female cordset, M8, 4-pin, PUR cable             |
| <b>V31-WM-2M-PUR</b> | Single-ended female cordset, M8, 4-pin, PUR cable             |

# R3 Series Retroreflective Sensors

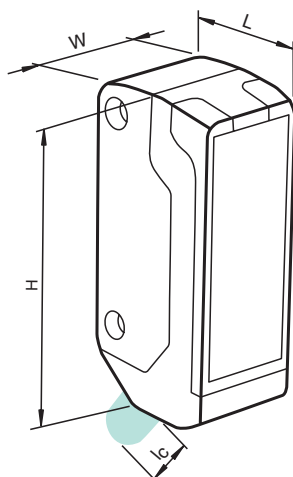


### Standard Technical Data

|                           |   |
|---------------------------|---|
| <b>Function principle</b> | Retroreflective sensor with polarization filter |
| <b>Voltage type</b>       | DC  |
| <b>Housing length L</b>   | 13.8 mm   |
| <b>Housing width W</b>    | 7.5 mm  |
| <b>Housing height H</b>   | 26 mm   |
| <b>UL</b>                 | ■   |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number             | Detection range [mm] | Light type      | Output type | UB (min) | UB (max) | Connection type          |
|--------------------------|----------------------|-----------------|-------------|----------|----------|--------------------------|
| OBR1000-R3-E0            | 1000                 | Red LED         | NPN         | 10       | 30       | Fixed cable              |
| OBR1000-R3-E2            | 1000                 | Red LED         | PNP         | 10       | 30       | Fixed cable              |
| OBR1000-R3-E2-0,2M-V3    | 1000                 | Red LED         | PNP         | 10       | 30       | Fixed cable with M8 plug |
| OBR1000-R3-E2-0,2M-V31   | 1000                 | Red LED         | PNP         | 10       | 30       | Fixed cable with M8 plug |
| OBR1000-R3-E3            | 1000                 | Red LED         | PNP         | 10       | 30       | Fixed cable              |
| OBR1000-R3-E3-0,2M-V31   | 1000                 | Red LED         | PNP         | 10       | 30       | Fixed cable with M8 plug |
| OBR2000-R3-E0-L          | 2000                 | Red laser diode | NPN         | 12       | 24       | Fixed cable              |
| OBR2000-R3-E2-0,2M-V31-L | 2000                 | Red laser diode | PNP         | 12       | 24       | Fixed cable with M8 plug |
| OBR2000-R3-E2-L          | 2000                 | Red laser diode | PNP         | 12       | 24       | Fixed cable              |



### Accessories

|                      |  |
|----------------------|--|
| <b>MH-R3-01</b>      | Mounting aid for sensors from the R3 series, mounting bracket                      |
| <b>MH-R3-02</b>      | Mounting aid for sensors from the R3 series, mounting bracket                      |
| <b>MH-R3-03</b>      | Mounting aid for sensors from the R3 series, mounting bracket                      |
| <b>MH-R3-04</b>      | Mounting aid for sensors from the R3 series, mounting bracket                      |
| <b>REF-H40</b>       | Rectangular reflector, 47.5 mm x 23.5 mm, mounting holes, retaining tab            |
| <b>REF-MH23</b>      | Rectangular reflector with microstructure, 23 mm x 13.8 mm, diagonal mounting hole |
| <b>V3-WM-2M-PUR</b>  | Single-ended female cordset, M8, 3-pin, PUR cable                                  |
| <b>V31-GM-2M-PUR</b> | Single-ended female cordset, M8, 4-pin, PUR cable                                  |
| <b>V31-WM-2M-PUR</b> | Single-ended female cordset, M8, 4-pin, PUR cable                                  |

## R3 Series

### Diffuse Mode Sensors



#### Standard Technical Data

|                  |         |
|------------------|---------|
| Voltage type     | DC      |
| Housing length L | 13.8 mm |
| Housing width W  | 7.5 mm  |
| Housing height H | 26 mm   |
| UL               | ■       |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number           | Function principle          | Detection range [mm] | Light type      | Output type | UB (min) | UB (max) | Connection type          |
|------------------------|-----------------------------|----------------------|-----------------|-------------|----------|----------|--------------------------|
| OBT15-R3-E0            | With background suppression | 15                   | Red LED         | NPN         | 10       | 30       | Fixed cable              |
| OBT15-R3-E0-1T         | With background evaluation  | 15                   | Red LED         | NPN         | 10       | 30       | Fixed cable              |
| OBT15-R3-E0-L          | With background suppression | 15                   | Red laser diode | NPN         | 12       | 24       | Fixed cable              |
| OBT15-R3-E2            | With background suppression | 15                   | Red LED         | PNP         | 10       | 30       | Fixed cable              |
| OBT15-R3-E2-0,2M-V3    | With background suppression | 15                   | Red LED         | PNP         | 10       | 30       | Fixed cable with M8 plug |
| OBT15-R3-E2-0,2M-V31   | With background suppression | 15                   | Red LED         | PNP         | 10       | 30       | Fixed cable with M8 plug |
| OBT15-R3-E2-0,2M-V31-L | With background suppression | 15                   | Red laser diode | PNP         | 12       | 24       | Fixed cable with M8 plug |
| OBT15-R3-E2-1T         | With background evaluation  | 15                   | Red LED         | PNP         | 10       | 30       | Fixed cable              |
| OBT15-R3-E2-L          | With background suppression | 15                   | Red laser diode | PNP         | 12       | 24       | Fixed cable              |
| OBT30-R3-E0            | With background suppression | 30                   | Red LED         | NPN         | 10       | 30       | Fixed cable              |
| OBT30-R3-E0-1T         | With background evaluation  | 30                   | Red LED         | NPN         | 10       | 30       | Fixed cable              |
| OBT30-R3-E0-L          | With background suppression | 30                   | Red laser diode | NPN         | 12       | 24       | Fixed cable              |
| OBT30-R3-E2            | With background suppression | 30                   | Red LED         | PNP         | 10       | 30       | Fixed cable              |
| OBT30-R3-E2-0,2M-V3    | With background suppression | 30                   | Red LED         | PNP         | 10       | 30       | Fixed cable with M8 plug |
| OBT30-R3-E2-0,2M-V31   | With background suppression | 30                   | Red LED         | PNP         | 10       | 30       | Fixed cable with M8 plug |
| OBT30-R3-E2-0,2M-V31-L | With background suppression | 30                   | Red laser diode | PNP         | 12       | 24       | Fixed cable with M8 plug |
| OBT30-R3-E2-1T         | With background evaluation  | 30                   | Red LED         | PNP         | 10       | 30       | Fixed cable              |
| OBT30-R3-E2-2,5M-V3-L  | With background suppression | 30                   | Red laser diode | PNP         | 12       | 24       | Fixed cable with M8 plug |
| OBT30-R3-E2-5M         | With background suppression | 30                   | Red LED         | PNP         | 10       | 30       | Fixed cable              |
| OBT30-R3-E2-L          | With background suppression | 30                   | Red laser diode | PNP         | 12       | 24       | Fixed cable              |
| OBT50-R3-E0            | With background suppression | 50                   | Red LED         | NPN         | 10       | 30       | Fixed cable              |
| OBT50-R3-E0-1T         | With background evaluation  | 50                   | Red LED         | NPN         | 10       | 30       | Fixed cable              |
| OBT50-R3-E0-L          | With background suppression | 50                   | Red laser diode | NPN         | 12       | 24       | Fixed cable              |
| OBT50-R3-E2            | With background suppression | 50                   | Red LED         | PNP         | 10       | 30       | Fixed cable              |
| OBT50-R3-E2-0,2M-V3    | With background suppression | 50                   | Red LED         | PNP         | 10       | 30       | Fixed cable with M8 plug |
| OBT50-R3-E2-0,2M-V31   | With background suppression | 50                   | Red LED         | PNP         | 10       | 30       | Fixed cable with M8 plug |
| OBT50-R3-E2-0,2M-V31-L | With background suppression | 50                   | Red laser diode | PNP         | 12       | 24       | Fixed cable with M8 plug |
| OBT50-R3-E2-1T         | With background evaluation  | 50                   | Red LED         | PNP         | 10       | 30       | Fixed cable              |
| OBT50-R3-E2-3M         | With background suppression | 50                   | Red LED         | PNP         | 10       | 30       | Fixed cable              |
| OBT50-R3-E2-5M         | With background suppression | 50                   | Red LED         | PNP         | 10       | 30       | Fixed cable              |
| OBT50-R3-E2-L          | With background suppression | 50                   | Red laser diode | PNP         | 12       | 24       | Fixed cable              |
| OBT80-R3-E0            | With background suppression | 80                   | Red LED         | NPN         | 10       | 30       | Fixed cable              |
| OBT80-R3-E0-L          | With background suppression | 80                   | Red laser diode | NPN         | 12       | 24       | Fixed cable              |
| OBT80-R3-E2            | With background suppression | 80                   | Red LED         | PNP         | 10       | 30       | Fixed cable              |
| OBT80-R3-E2-0,2M-V3    | With background suppression | 80                   | Red LED         | PNP         | 10       | 30       | Fixed cable with M8 plug |
| OBT80-R3-E2-0,2M-V31   | With background suppression | 80                   | Red LED         | PNP         | 10       | 30       | Fixed cable with M8 plug |
| OBT80-R3-E2-0,2M-V31-L | With background suppression | 80                   | Red laser diode | PNP         | 12       | 24       | Fixed cable with M8 plug |
| OBT80-R3-E2-L          | With background suppression | 80                   | Red laser diode | PNP         | 12       | 24       | Fixed cable              |
| OBT80-R3-E3-0,2M-V31   | With background suppression | 80                   | Red LED         | PNP         | 10       | 30       | Fixed cable with M8 plug |

# R3F Series Thru-Beam Sensors



### Standard Technical Data

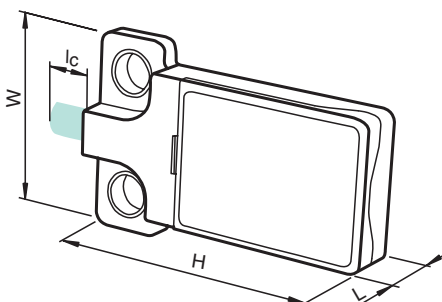
|                           |                  |
|---------------------------|------------------|
| <b>Function principle</b> | Thru-beam sensor |
| <b>Voltage type</b>       | DC               |
| <b>Housing length L</b>   | 4.1 mm           |
| <b>Housing width W</b>    | 16 mm            |
| <b>Housing height H</b>   | 25.5 mm          |
| <b>UL</b>                 | ■                |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number               | Detection range [mm] | Light type      | Output type | UB (min) | UB (max) | Connection type          |
|----------------------------|----------------------|-----------------|-------------|----------|----------|--------------------------|
| OBE500-R3F-SE0             | 500                  | Red LED         | NPN         | 10       | 30       | Fixed cable              |
| OBE500-R3F-SE0-L           | 500                  | Red laser diode | NPN         | 12       | 24       | Fixed cable              |
| OBE500-R3F-SE2             | 500                  | Red LED         | PNP         | 10       | 30       | Fixed cable              |
| OBE500-R3F-SE2-0,2M-V31    | 500                  | Red LED         | PNP         | 10       | 30       | Fixed cable with M8 plug |
| OBE500-R3F-SE2-0,2M-V31-L  | 500                  | Red laser diode | PNP         | 12       | 24       | Fixed cable with M8 plug |
| OBE500-R3F-SE2-L           | 500                  | Red laser diode | PNP         | 12       | 24       | Fixed cable              |
| OBE1500-R3F-SE0-L          | 1500                 | Red laser diode | NPN         | 12       | 24       | Fixed cable              |
| OBE1500-R3F-SE2-0,2M-V31-L | 1500                 | Red laser diode | PNP         | 12       | 24       | Fixed cable with M8 plug |
| OBE1500-R3F-SE2-L          | 1500                 | Red laser diode | PNP         | 12       | 24       | Fixed cable              |

### Accessories

|                      |   |
|----------------------|---|
| <b>V31-WM-2M-PUR</b> | Single-ended female cordset, M8, 4-pin, PUR cable |
|----------------------|---|



# R3F Series Retroreflective Sensors

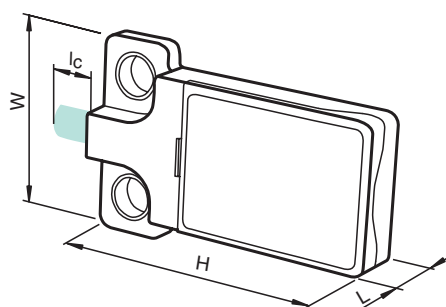


### Standard Technical Data

|                                |   |
|--------------------------------|---|
| <b>Function principle</b>      | Retroreflective sensor with polarization filter |
| <b>Detection range</b>         | 1500 mm   |
| <b>Light type</b>              | Red laser diode                                 |
| <b>Voltage type</b>            | DC  |
| <b>Operating voltage (min)</b> | 12 V  |
| <b>Operating voltage (max)</b> | 24 V  |
| <b>Housing length L</b>        | 4.1 mm  |
| <b>Housing width W</b>         | 16 mm   |
| <b>Housing height H</b>        | 25.5 mm   |
| <b>UL</b>                      | ■   |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number              | Output type | Connection type          |
|---------------------------|-------------|--------------------------|
| OBR1500-R3F-E0-L          | NPN         | Fixed cable              |
| OBR1500-R3F-E1-0,2M-V31-L | NPN         | Fixed cable with M8 plug |
| OBR1500-R3F-E2-0,2M-V31-L | PNP         | Fixed cable with M8 plug |
| OBR1500-R3F-E2-L          | PNP         | Fixed cable              |



### Accessories

|                      |  |
|----------------------|--|
| <b>REF-H23</b>       | Reflector with mounting holes  |
| <b>REF-H40</b>       | Rectangular reflector, 47.5 mm x 23.5 mm, mounting holes                           |
| <b>REF-MH20</b>      | Rectangular reflector with microstructure, 32 mm x 20 mm, mounting holes           |
| <b>REF-MH23</b>      | Rectangular reflector with microstructure, 23 mm x 13.8 mm, diagonal mounting hole |
| <b>V31-GM-2M-PUR</b> | Single-ended female cordset, M8, 4-pin, PUR cable                                  |
| <b>V31-WM-2M-PUR</b> | Single-ended female cordset, M8, 4-pin, PUR cable                                  |



# R3F Series Diffuse Mode Sensors

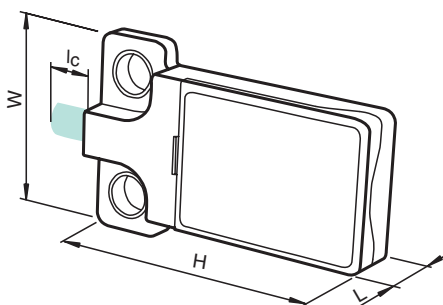


### Standard Technical Data

|                           |  |
|---------------------------|--|
| <b>Function principle</b> | Triangulation sensor with background suppression |
| <b>Voltage type</b>       | DC   |
| <b>Housing length L</b>   | 4.1 mm   |
| <b>Housing width W</b>    | 16 mm  |
| <b>Housing height H</b>   | 25.5 mm  |
| <b>UL</b>                 | ■  |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number            | Detection range [mm] | Light type      | Output type | UB (min) | UB (max) | Connection type          |
|-------------------------|----------------------|-----------------|-------------|----------|----------|--------------------------|
| OBT15-R3F-E0            | 15                   | Red LED         | NPN         | 10       | 30       | Fixed cable              |
| OBT15-R3F-E0-L          | 15                   | Red laser diode | NPN         | 12       | 24       | Fixed cable              |
| OBT15-R3F-E2            | 15                   | Red LED         | PNP         | 10       | 30       | Fixed cable              |
| OBT15-R3F-E2-0,2M-V31   | 15                   | Red LED         | PNP         | 10       | 30       | Fixed cable with M8 plug |
| OBT15-R3F-E2-0,2M-V31-L | 15                   | Red laser diode | PNP         | 12       | 24       | Fixed cable with M8 plug |
| OBT15-R3F-E2-L          | 15                   | Red laser diode | PNP         | 12       | 24       | Fixed cable              |
| OBT30-R3F-E0            | 30                   | Red LED         | NPN         | 10       | 30       | Fixed cable              |
| OBT30-R3F-E0-L          | 30                   | Red laser diode | NPN         | 12       | 24       | Fixed cable              |
| OBT30-R3F-E2            | 30                   | Red LED         | PNP         | 10       | 30       | Fixed cable              |
| OBT30-R3F-E2-0,2M-V31   | 30                   | Red LED         | PNP         | 10       | 30       | Fixed cable with M8 plug |
| OBT30-R3F-E2-0,2M-V31-L | 30                   | Red laser diode | PNP         | 12       | 24       | Fixed cable with M8 plug |
| OBT30-R3F-E2-L          | 30                   | Red laser diode | PNP         | 12       | 24       | Fixed cable              |



### Accessories

|                      |   |
|----------------------|---|
| <b>V31-GM-2M-PUR</b> | Single-ended female cordset, M8, 4-pin, PUR cable |
| <b>V31-WM-2M-PUR</b> | Single-ended female cordset, M8, 4-pin, PUR cable |

# R100 Series Thru-Beam Sensors

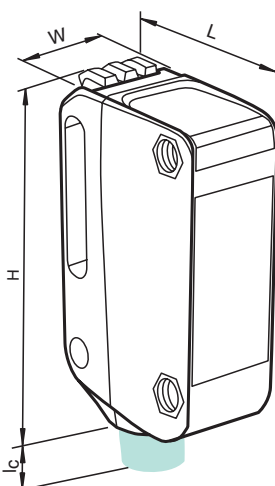


## Standard Technical Data

|                                |                  |
|--------------------------------|------------------|
| <b>Function principle</b>      | Thru-beam sensor |
| <b>Interface</b>               | IO-Link          |
| <b>Operating elements</b>      | Potentiometer    |
| <b>Voltage type</b>            | DC               |
| <b>Operating voltage (min)</b> | 10 V             |
| <b>Operating voltage (max)</b> | 30 V             |
| <b>Housing length L</b>        | 21.5 mm          |
| <b>Housing width W</b>         | 11 mm            |
| <b>UL</b>                      | ■                |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number                   | Detection range [mm] | Light type      | Output type   | Connection type           | Height H |
|--------------------------------|----------------------|-----------------|---------------|---------------------------|----------|
| OBE12M-R100-S2EP-IO            | 12000                | Red LED         | 2 x push-pull | Fixed cable               | 37.1     |
| OBE12M-R100-S2EP-IO-0,3M-V1    | 12000                | Red LED         | 2 x push-pull | Fixed cable with M12 plug | 37.1     |
| OBE12M-R100-S2EP-IO-0,3M-V31   | 12000                | Red LED         | 2 x push-pull | Fixed cable with M8 plug  | 37.1     |
| OBE12M-R100-S2EP-IO-V31        | 12000                | Red LED         | 2 x push-pull | M8 connector plug         | 44.5     |
| OBE12M-R100-SEP-IO-0,3M-V3     | 12000                | Red LED         | 1 x push-pull | Fixed cable with M8 plug  | 37.1     |
| OBE12M-R100-SEP-IO-V3          | 12000                | Red LED         | 1 x push-pull | M8 connector plug         | 37.1     |
| OBE20M-R100-S2EP-IO-0,3M-V1-L  | 20000                | Red laser diode | 2 x push-pull | Fixed cable with M12 plug | 37.1     |
| OBE20M-R100-S2EP-IO-0,3M-V31-L | 20000                | Red laser diode | 2 x push-pull | Fixed cable with M8 plug  | 37.1     |
| OBE20M-R100-S2EP-IO-IR         | 20000                | Infrared LED    | 2 x push-pull | Fixed cable               | 37.1     |
| OBE20M-R100-S2EP-IO-L          | 20000                | Red laser diode | 2 x push-pull | Fixed cable               | 37.1     |
| OBE20M-R100-S2EP-IO-V31-IR     | 20000                | Infrared LED    | 2 x push-pull | M8 connector plug         | 44.5     |
| OBE20M-R100-S2EP-IO-V31-L      | 20000                | Red laser diode | 2 x push-pull | M8 connector plug         | 44.5     |
| OBE20M-R100-SEP-IO-0,3M-V3-L   | 20000                | Red laser diode | 1 x push-pull | Fixed cable with M8 plug  | 37.1     |
| OBE20M-R100-SEP-IO-V3-L        | 20000                | Red laser diode | 1 x push-pull | M8 connector plug         | 37.1     |



## Accessories

|                      |   |
|----------------------|---|
| <b>OMH-ML100-03</b>  | Mounting aid for circular profile $\varnothing$ 12 mm or flat profile 1.5 mm    |
| <b>OMH-ML100-031</b> | Mounting aid for circular profile $\varnothing$ 10 mm ... 14 mm or flat profile |
| <b>OMH-ML100-09</b>  | Mounting aid for circular profile $\varnothing$ 12 mm or flat profile 1.5 mm    |
| <b>OMH-R10X-01</b>   | Mounting bracket  |
| <b>OMH-R10X-02</b>   | Mounting bracket  |
| <b>OMH-R10X-10</b>   | Mounting bracket  |
| <b>V1-G-2M-PUR</b>   | Single-ended female cordset, M12, 4-pin, PUR cable                              |
| <b>V3-GM-2M-PUR</b>  | Single-ended female cordset, M8, 3-pin, PUR cable                               |
| <b>V31-GM-2M-PUR</b> | Single-ended female cordset, M8, 4-pin, PUR cable                               |
| <b>V31-WM-2M-PUR</b> | Single-ended female cordset, M8, 4-pin, PUR cable                               |

# R100 Series

## Retroreflective Sensors



### Standard Technical Data

|                         |         |
|-------------------------|---------|
| Interface               | IO-Link |
| Voltage type            | DC      |
| Operating voltage (min) | 10 V    |
| Operating voltage (max) | 30 V    |
| Housing length L        | 21.5 mm |
| Housing width W         | 11 mm   |
| UL                      | ■       |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number                   | Function principle          | Detection range [mm] | Light type      | Operating elements         | Output type   | Connection type           | Height H |
|--------------------------------|-----------------------------|----------------------|-----------------|----------------------------|---------------|---------------------------|----------|
| OBG5000-R100-2EP-IO            | For clear object detection  | 3500                 | Red LED         | Potentiometer, push-button | 2 x push-pull | Fixed cable               | 37.1     |
| OBG5000-R100-2EP-IO-0,3M-V1    | For clear object detection  | 3500                 | Red LED         | Potentiometer, push-button | 2 x push-pull | Fixed cable with M12 plug | 37.1     |
| OBG5000-R100-2EP-IO-0,3M-V31   | For clear object detection  | 3500                 | Red LED         | Potentiometer, push-button | 2 x push-pull | Fixed cable with M8 plug  | 37.1     |
| OBG5000-R100-2EP-IO-V31        | For clear object detection  | 3500                 | Red LED         | Potentiometer, push-button | 2 x push-pull | M8 connector plug         | 44.5     |
| OBG5000-R100-2EP1-IO           | For clear object detection  | 3500                 | Red LED         | Potentiometer, push-button | 2 x push-pull | Fixed cable               | 37.1     |
| OBG5000-R100-2EP1-IO-0,3M-V1   | For clear object detection  | 3500                 | Red LED         | Potentiometer, push-button | 2 x push-pull | Fixed cable with M12 plug | 37.1     |
| OBG5000-R100-2EP1-IO-V31       | For clear object detection  | 3500                 | Red LED         | Potentiometer, push-button | 2 x push-pull | M8 connector plug         | 44.5     |
| OBG5000-R100-E5-IO-V3          | For clear object detection  | 3500                 | Red LED         | Potentiometer, push-button | PNP           | M8 connector plug         | 44.5     |
| OBG5000-R100-EP-IO-0,3M-V3     | For clear object detection  | 3500                 | Red LED         | Potentiometer, push-button | 1 x push-pull | Fixed cable with M8 plug  | 37.1     |
| OBG5000-R100-EP-IO-V3          | For clear object detection  | 3500                 | Red LED         | Potentiometer, push-button | 1 x push-pull | M8 connector plug         | 44.5     |
| OBR7500-R100-EP-IO-V3          | With polarization filter    | 7500                 | Red LED         | Potentiometer              | 1 x push-pull | M8 connector plug         | 44.5     |
| OBR7000-R100-2EP-IO-1R-IR      | Without polarization filter | 7000                 | Infrared LED    | Potentiometer              | 2 x push-pull | Fixed cable               | 37.1     |
| OBR7000-R100-2EP-IO-V31-1R-IR  | Without polarization filter | 7000                 | Infrared LED    | Potentiometer              | 2 x push-pull | M8 connector plug         | 44.5     |
| OBR7000-R100-2EP1-IO-V31-1R-IR | Without polarization filter | 7000                 | Infrared LED    | Potentiometer              | 2 x push-pull | M8 connector plug         | 44.5     |
| OBR7500-R100-2EP-IO            | With polarization filter    | 7500                 | Red LED         | Potentiometer              | 2 x push-pull | Fixed cable               | 37.1     |
| OBR7500-R100-2EP-IO-0,3M-V1    | With polarization filter    | 7500                 | Red LED         | Potentiometer              | 2 x push-pull | Fixed cable with M12 plug | 37.1     |
| OBR7500-R100-2EP-IO-0,3M-V31   | With polarization filter    | 7500                 | Red LED         | Potentiometer              | 2 x push-pull | Fixed cable with M8 plug  | 37.1     |
| OBR7500-R100-2EP-IO-V31        | With polarization filter    | 7500                 | Red LED         | Potentiometer              | 2 x push-pull | M8 connector plug         | 44.5     |
| OBR7500-R100-2EP1-IO           | With polarization filter    | 7500                 | Red LED         | Potentiometer              | 2 x push-pull | Fixed cable               | 37.1     |
| OBR7500-R100-2EP1-IO-0,3M-V1   | With polarization filter    | 7500                 | Red LED         | Potentiometer              | 2 x push-pull | Fixed cable with M12 plug | 37.1     |
| OBR7500-R100-2EP1-IO-0,3M-V31  | With polarization filter    | 7500                 | Red LED         | Potentiometer              | 2 x push-pull | Fixed cable with M8 plug  | 37.1     |
| OBR7500-R100-2EP1-IO-V31       | With polarization filter    | 7500                 | Red LED         | Potentiometer              | 2 x push-pull | M8 connector plug         | 44.5     |
| OBR7500-R100-E2-IO-V31         | With polarization filter    | 7500                 | Red LED         | Potentiometer              | PNP           | M8 connector plug         | 44.5     |
| OBR7500-R100-EP-IO-0,3M-V3     | With polarization filter    | 7500                 | Red LED         | Potentiometer              | 1 x push-pull | Fixed cable with M8 plug  | 37.1     |
| OBR10M-R100-2EP-IO-1R-IR       | Without polarization filter | 10000                | Infrared LED    | Potentiometer              | 2 x push-pull | Fixed cable               | 37.1     |
| OBR10M-R100-2EP-IO-V31-1R-IR   | Without polarization filter | 10000                | Infrared LED    | Potentiometer              | 2 x push-pull | M8 connector plug         | 44.5     |
| OBR12M-R100-2EP-IO-0,3M-V1-L   | With polarization filter    | 12000                | Red laser diode | Potentiometer              | 2 x push-pull | Fixed cable with M12 plug | 37.1     |
| OBR12M-R100-2EP-IO-0,3M-V31-L  | With polarization filter    | 12000                | Red laser diode | Potentiometer              | 2 x push-pull | Fixed cable with M8 plug  | 37.1     |
| OBR12M-R100-2EP-IO-L           | With polarization filter    | 12000                | Red laser diode | Potentiometer              | 2 x push-pull | Fixed cable               | 37.1     |
| OBR12M-R100-2EP-IO-V31-L       | With polarization filter    | 12000                | Red laser diode | Potentiometer              | 2 x push-pull | M8 connector plug         | 44.5     |
| OBR12M-R100-EP-IO-0,3M-V3-L    | With polarization filter    | 12000                | Red laser diode | Potentiometer              | 1 x push-pull | Fixed cable with M8 plug  | 37.1     |
| OBR12M-R100-EP-IO-V3-L         | With polarization filter    | 12000                | Red laser diode | Potentiometer              | 1 x push-pull | M8 connector plug         | 44.5     |

# R100 Series

## Diffuse Mode Sensors



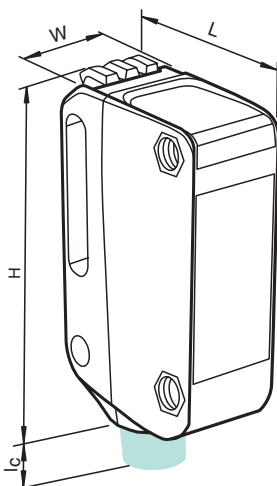
### Standard Technical Data

|                                |         |
|--------------------------------|---------|
| <b>Voltage type</b>            | DC      |
| <b>Operating voltage (min)</b> | 10 V    |
| <b>Operating voltage (max)</b> | 30 V    |
| <b>Housing length L</b>        | 21.5 mm |
| <b>Housing width W</b>         | 11 mm   |
| <b>UL</b>                      | ■       |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number                   | Function principle          | Detection range [mm] | Light type      | Interface | Operating elements         | Output type   | Connection type           | Height H | EAC |
|--------------------------------|-----------------------------|----------------------|-----------------|-----------|----------------------------|---------------|---------------------------|----------|-----|
| OBT100-R100-2EP-IO-0,3M-V1-L   | With background suppression | 100                  | Red laser diode | IO-Link   | Potentiometer              | 2 x push-pull | Fixed cable with M12 plug | 37.1     |     |
| OBT100-R100-2EP-IO-0,3M-V31-L  | With background suppression | 100                  | Red laser diode | IO-Link   | Potentiometer              | 2 x push-pull | Fixed cable with M8 plug  | 37.1     |     |
| OBT100-R100-2EP-IO-1T-L        | With background evaluation  | 100                  | Red laser diode | IO-Link   | Potentiometer              | 2 x push-pull | Fixed cable               | 37.1     |     |
| OBT100-R100-2EP-IO-L           | With background suppression | 100                  | Red laser diode | IO-Link   | Potentiometer              | 2 x push-pull | Fixed cable               | 37.1     |     |
| OBT100-R100-2EP-IO-V31-1T-L    | With background evaluation  | 100                  | Red laser diode | IO-Link   | Potentiometer              | 2 x push-pull | M8 connector plug         | 44.5     |     |
| OBT100-R100-2EP-IO-V31-L       | With background suppression | 100                  | Red laser diode | IO-Link   | Potentiometer              | 2 x push-pull | M8 connector plug         | 44.5     |     |
| OBT100-R100-EP-IO-0,3M-V3-1T-L | With background evaluation  | 100                  | Red laser diode | IO-Link   | Potentiometer              | 1 x push-pull | Fixed cable with M8 plug  | 37.1     |     |
| OBT100-R100-EP-IO-0,3M-V3-L    | With background suppression | 100                  | Red laser diode | IO-Link   | Potentiometer              | 1 x push-pull | Fixed cable with M8 plug  | 37.1     |     |
| OBT100-R100-EP-IO-V3-1T-L      | With background evaluation  | 100                  | Red laser diode | IO-Link   | Potentiometer              | 1 x push-pull | M8 connector plug         | 44.5     |     |
| OBT100-R100-EP-IO-V3-L         | With background suppression | 100                  | Red laser diode | IO-Link   | Potentiometer              | 1 x push-pull | M8 connector plug         | 44.5     |     |
| OBT150-R100-2EP-IO             | With background suppression | 150                  | Red LED         | IO-Link   | Potentiometer              | 2 x push-pull | Fixed cable               | 37.1     |     |
| OBT150-R100-2EP-IO-0,3M-V1     | With background suppression | 150                  | Red LED         | IO-Link   | Potentiometer              | 2 x push-pull | Fixed cable with M12 plug | 37.1     |     |
| OBT150-R100-2EP1-IO            | With background suppression | 150                  | Red LED         | IO-Link   | Potentiometer              | 2 x push-pull | Fixed cable               | 37.1     |     |
| OBT150-R100-2EP1-IO-0,3M-V1    | With background suppression | 150                  | Red LED         | IO-Link   | Potentiometer              | 2 x push-pull | Fixed cable with M12 plug | 37.1     |     |
| OBT150-R100-2EP1-IO-0,3M-V1-IR | With background suppression | 150                  | Infrared LED    | IO-Link   | Potentiometer              | 2 x push-pull | Fixed cable with M12 plug | 44.5     |     |
| OBT150-R100-2EP1-IO-0,3M-V31   | With background suppression | 150                  | Red LED         | IO-Link   | Potentiometer              | 2 x push-pull | Fixed cable with M8 plug  | 37.1     |     |
| OBT150-R100-2EP1-IO-IR         | With background suppression | 150                  | Infrared LED    | IO-Link   | Potentiometer              | 2 x push-pull | Fixed cable               | 37.1     |     |
| OBT150-R100-2EP1-IO-V31        | With background suppression | 150                  | Red LED         | IO-Link   | Potentiometer              | 2 x push-pull | M8 connector plug         | 44.5     |     |
| OBT150-R100-2EP1-IO-V31-IR     | With background suppression | 150                  | Infrared LED    | IO-Link   | Potentiometer              | 2 x push-pull | M8 connector plug         | 44.5     |     |
| OQT150-R100-2EP-IO             | With multiple switch points | 150                  | Red LED         | IO-Link   | Potentiometer, push-button | 2 x push-pull | Fixed cable               | 37.1     |     |
| OQT150-R100-2EP-IO-0,3M-V1     | With multiple switch points | 150                  | Red LED         | IO-Link   | Potentiometer, push-button | 2 x push-pull | Fixed cable with M12 plug | 37.1     |     |
| OQT150-R100-2EP-IO-0,3M-V1-L   | With multiple switch points | 150                  | Red laser diode | IO-Link   | Potentiometer, push-button | 2 x push-pull | Fixed cable with M12 plug | 37.1     |     |
| OQT150-R100-2EP-IO-0,3M-V31    | With multiple switch points | 150                  | Red LED         | IO-Link   | Potentiometer, push-button | 2 x push-pull | Fixed cable with M8 plug  | 37.1     |     |
| OQT150-R100-2EP-IO-0,3M-V31-L  | With multiple switch points | 150                  | Red laser diode | IO-Link   | Potentiometer, push-button | 2 x push-pull | Fixed cable with M8 plug  | 37.1     |     |
| OQT150-R100-2EP-IO-IR          | With multiple switch points | 150                  | Infrared LED    | IO-Link   | Potentiometer, push-button | 2 x push-pull | Fixed cable               | 37.1     |     |
| OQT150-R100-2EP-IO-L           | With multiple switch points | 150                  | Red laser diode | IO-Link   | Potentiometer, push-button | 2 x push-pull | Fixed cable               | 37.1     |     |
| OQT150-R100-2EP-IO-V31         | With multiple switch points | 150                  | Red LED         | IO-Link   | Potentiometer, push-button | 2 x push-pull | M8 connector plug         | 44.5     |     |
| OQT150-R100-2EP-IO-V31-IR      | With multiple switch points | 150                  | Infrared LED    | IO-Link   | Potentiometer, push-button | 2 x push-pull | M8 connector plug         | 44.5     |     |
| OQT150-R100-2EP-IO-V31-L       | With multiple switch points | 150                  | Red laser diode | IO-Link   | Potentiometer, push-button | 2 x push-pull | M8 connector plug         | 44.5     |     |
| OQT150-R100-EP-IO-0,3M-V3      | With multiple switch points | 150                  | Red LED         | IO-Link   | Potentiometer, push-button | 1 x push-pull | Fixed cable with M8 plug  | 37.1     |     |
| OQT150-R100-EP-IO-0,3M-V3-L    | With multiple switch points | 150                  | Red laser diode | IO-Link   | Potentiometer, push-button | 1 x push-pull | Fixed cable with M8 plug  | 37.1     |     |

| Model number                   | Function principle          | Detection range [mm] | Light type      | Interface | Operating elements         | Output type   | Connection type           | Height H | EAC |
|--------------------------------|-----------------------------|----------------------|-----------------|-----------|----------------------------|---------------|---------------------------|----------|-----|
| OQT150-R100-EP-IO-V3           | With multiple switch points | 150                  | Red LED         | IO-Link   | Potentiometer, push-button | 1 x push-pull | M8 connector plug         | 44.5     |     |
| OQT150-R100-EP-IO-V3-L         | With multiple switch points | 150                  | Red laser diode | IO-Link   | Potentiometer, push-button | 1 x push-pull | M8 connector plug         | 44.5     |     |
| OBT300-R100-2EP-IO-0,3M-V1-L   | With background suppression | 300                  | Red laser diode | IO-Link   | Potentiometer              | 2 x push-pull | Fixed cable with M12 plug | 37.1     |     |
| OBT300-R100-2EP-IO-0,3M-V31-L  | With background suppression | 300                  | Red laser diode | IO-Link   | Potentiometer              | 2 x push-pull | Fixed cable with M8 plug  | 37.1     |     |
| OBT300-R100-2EP-IO-1T-L        | With background evaluation  | 300                  | Red laser diode | IO-Link   | Potentiometer              | 2 x push-pull | Fixed cable               | 37.1     |     |
| OBT300-R100-2EP-IO-L           | With background suppression | 300                  | Red laser diode | IO-Link   | Potentiometer              | 2 x push-pull | Fixed cable               | 37.1     |     |
| OBT300-R100-2EP-IO-V31-1T-L    | With background evaluation  | 300                  | Red laser diode | IO-Link   | Potentiometer              | 2 x push-pull | M8 connector plug         | 44.5     |     |
| OBT300-R100-2EP-IO-V31-L       | With background suppression | 300                  | Red laser diode | IO-Link   | Potentiometer              | 2 x push-pull | M8 connector plug         | 44.5     |     |
| OBT300-R100-E5-IO-0,3M-V3-L    | With background suppression | 300                  | Red laser diode | IO-Link   | Potentiometer              | PNP           | Fixed cable with M8 plug  | 37.1     |     |
| OBT300-R100-E5-IO-L            | With background suppression | 300                  | Red laser diode | IO-Link   | Potentiometer              | PNP           | Fixed cable               | 37.1     |     |
| OBT300-R100-E5-V31-L           | With background suppression | 300                  | Red laser diode |           | Potentiometer              | PNP           | M8 connector plug         | 44.5     | ■   |
| OBT300-R100-EP-IO-0,3M-V3-1T-L | With background evaluation  | 300                  | Red laser diode | IO-Link   | Potentiometer              | 1 x push-pull | Fixed cable with M8 plug  | 37.1     |     |
| OBT300-R100-EP-IO-0,3M-V3-L    | With background suppression | 300                  | Red laser diode | IO-Link   | Potentiometer              | 1 x push-pull | Fixed cable with M8 plug  | 37.1     |     |
| OBT300-R100-EP-IO-V3-1T-L      | With background evaluation  | 300                  | Red laser diode | IO-Link   | Potentiometer              | 1 x push-pull | M8 connector plug         | 44.5     |     |
| OBT300-R100-EP-IO-V3-L         | With background suppression | 300                  | Red laser diode | IO-Link   | Potentiometer              | 1 x push-pull | M8 connector plug         | 44.5     |     |
| OBT350-R100-2EP-IO             | With background suppression | 350                  | Red LED         | IO-Link   | Potentiometer              | 2 x push-pull | Fixed cable               | 37.1     |     |
| OBT350-R100-2EP-IO-0,3M-V1     | With background suppression | 350                  | Red LED         | IO-Link   | Potentiometer              | 2 x push-pull | Fixed cable with M12 plug | 37.1     |     |
| OBT350-R100-2EP-IO-0,3M-V1-1T  | With background evaluation  | 350                  | Red LED         | IO-Link   | Potentiometer              | 2 x push-pull | Fixed cable with M12 plug | 37.1     |     |
| OBT350-R100-2EP-IO-0,3M-V1-IR  | With background suppression | 350                  | Infrared LED    | IO-Link   | Potentiometer              | 2 x push-pull | Fixed cable with M12 plug | 37.1     |     |
| OBT350-R100-2EP-IO-0,3M-V31    | With background suppression | 350                  | Red LED         | IO-Link   | Potentiometer              | 2 x push-pull | Fixed cable with M8 plug  | 37.1     |     |
| OBT350-R100-2EP-IO-0,3M-V31-1T | With background evaluation  | 350                  | Red LED         | IO-Link   | Potentiometer              | 2 x push-pull | Fixed cable with M8 plug  | 37.1     |     |
| OBT350-R100-2EP-IO-0,3M-V31-IR | With background suppression | 350                  | Infrared LED    | IO-Link   | Potentiometer              | 2 x push-pull | Fixed cable with M8 plug  | 37.1     |     |
| OBT350-R100-2EP-IO-1T          | With background evaluation  | 350                  | Red LED         | IO-Link   | Potentiometer              | 2 x push-pull | Fixed cable               | 37.1     |     |
| OBT350-R100-2EP-IO-1T-IR       | With background evaluation  | 350                  | Infrared LED    | IO-Link   | Potentiometer              | 2 x push-pull | Fixed cable               | 37.1     |     |
| OBT350-R100-2EP-IO-IR          | With background suppression | 350                  | Infrared LED    | IO-Link   | Potentiometer              | 2 x push-pull | Fixed cable               | 37.1     |     |
| OBT350-R100-2EP-IO-V31         | With background suppression | 350                  | Red LED         | IO-Link   | Potentiometer              | 2 x push-pull | M8 connector plug         | 44.5     |     |
| OBT350-R100-2EP-IO-V31-1T      | With background evaluation  | 350                  | Red LED         | IO-Link   | Potentiometer              | 2 x push-pull | M8 connector plug         | 44.5     |     |
| OBT350-R100-2EP-IO-V31-1T-IR   | With background evaluation  | 350                  | Infrared LED    | IO-Link   | Potentiometer              | 2 x push-pull | M8 connector plug         | 44.5     |     |
| OBT350-R100-2EP-IO-V31-IR      | With background suppression | 350                  | Infrared LED    | IO-Link   | Potentiometer              | 2 x push-pull | M8 connector plug         | 44.5     |     |
| OBT350-R100-2EP1-IO-0,3M-V1-IR | With background suppression | 350                  | Infrared LED    | IO-Link   | Potentiometer              | 2 x push-pull | Fixed cable with M12 plug | 44.5     |     |
| OBT350-R100-2EP1-IO-IR         | With background suppression | 350                  | Infrared LED    | IO-Link   | Potentiometer              | 2 x push-pull | Fixed cable               | 37.1     |     |
| OBT350-R100-2EP1-IO-V31-IR     | With background suppression | 350                  | Infrared LED    | IO-Link   | Potentiometer              | 2 x push-pull | M8 connector plug         | 44.5     |     |
| OBT350-R100-EP-IO-0,3M-V3      | With background suppression | 350                  | Red LED         | IO-Link   | Potentiometer              | 1 x push-pull | Fixed cable with M8 plug  | 37.1     |     |
| OBT350-R100-EP-IO-0,3M-V3-1T   | With background evaluation  | 350                  | Red LED         | IO-Link   | Potentiometer              | 1 x push-pull | Fixed cable with M8 plug  | 37.1     |     |
| OBT350-R100-EP-IO-V3           | With background suppression | 350                  | Red LED         | IO-Link   | Potentiometer              | 1 x push-pull | M8 connector plug         | 44.5     |     |
| OBT350-R100-EP-IO-V3-1T        | With background evaluation  | 350                  | Red LED         | IO-Link   | Potentiometer              | 1 x push-pull | M8 connector plug         | 44.5     |     |
| OBD1000-R100-2EP-IO            | Energetic                   | 1000                 | Red LED         | IO-Link   | Potentiometer              | 2 x push-pull | Fixed cable               | 37.1     |     |
| OBD1000-R100-2EP-IO-0,3M-V1    | Energetic                   | 1000                 | Red LED         | IO-Link   | Potentiometer              | 2 x push-pull | Fixed cable with M12 plug | 37.1     |     |
| OBD1000-R100-2EP-IO-0,3M-V31   | Energetic                   | 1000                 | Red LED         | IO-Link   | Potentiometer              | 2 x push-pull | Fixed cable with M8 plug  | 37.1     |     |
| OBD1000-R100-2EP-IO-V31        | Energetic                   | 1000                 | Red LED         | IO-Link   | Potentiometer              | 2 x push-pull | M8 connector plug         | 44.5     |     |
| OBD1000-R100-EP-IO-0,3M-V3     | Energetic                   | 1000                 | Red LED         | IO-Link   | Potentiometer              | 1 x push-pull | Fixed cable with M8 plug  | 37.1     |     |
| OBD1000-R100-EP-IO-V3          | Energetic                   | 1000                 | Red LED         | IO-Link   | Potentiometer              | 1 x push-pull | M8 connector plug         | 37.1     |     |
| OBD1100-R100-2EP-IO-IR         | Energetic                   | 1100                 | Infrared LED    | IO-Link   | Potentiometer              | 2 x push-pull | Fixed cable               | 37.1     |     |
| OBD1100-R100-2EP-IO-V31-IR     | Energetic                   | 1100                 | Infrared LED    | IO-Link   | Potentiometer              | 2 x push-pull | M8 connector plug         | 44.5     |     |



#### Accessories

|                             |   |
|-----------------------------|---|
| <b>IO-Link-Master02-USB</b> | IO-Link master, power supply via USB port   |
| <b>OMH-ML100-03</b>         | Mounting aid for circular profile $\varnothing$ 12 mm or flat profile 1.5 mm ... 3 mm         |
| <b>OMH-ML100-031</b>        | Mounting aid for circular profile $\varnothing$ 10 mm ... 14 mm or flat profile 1 mm ... 5 mm |
| <b>OMH-ML100-09</b>         | Mounting aid for circular profile $\varnothing$ 12 mm or flat profile 1.5 mm ... 3 mm         |
| <b>OMH-R10X-01</b>          | Mounting bracket  |
| <b>OMH-R10X-02</b>          | Mounting bracket  |
| <b>OMH-R10X-04</b>          | Mounting bracket  |
| <b>OMH-R10X-10</b>          | Mounting bracket  |
| <b>V1-G-2M-PUR</b>          | Single-ended female cordset, M12, 4-pin, PUR cable  |
| <b>V1-W-2M-PUR</b>          | Single-ended female cordset, M12, 4-pin, PUR cable  |

# R101 Series Thru-Beam Sensors

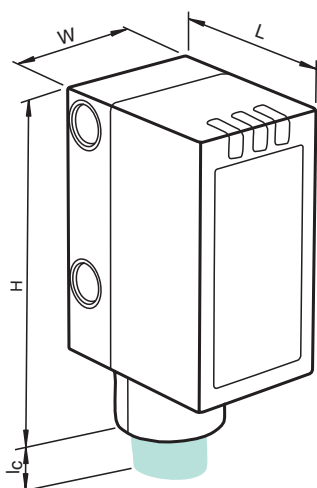


### Standard Technical Data

|                                |                  |
|--------------------------------|------------------|
| <b>Function principle</b>      | Thru-beam sensor |
| <b>Interface</b>               | IO-Link          |
| <b>Operating elements</b>      | Potentiometer    |
| <b>Voltage type</b>            | DC               |
| <b>Operating voltage (min)</b> | 10 V             |
| <b>Operating voltage (max)</b> | 30 V             |
| <b>Housing length L</b>        | 18.3 mm          |
| <b>Housing width W</b>         | 13.9 mm          |
| <b>UL</b>                      | ■                |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number                   | Detection range [mm] | Light type      | Output type   | Connection type           | Height H |
|--------------------------------|----------------------|-----------------|---------------|---------------------------|----------|
| OBE12M-R101-S2EP-IO            | 12000                | Red LED         | 2 x push-pull | Fixed cable               | 33.8     |
| OBE12M-R101-S2EP-IO-0,3M-V1    | 12000                | Red LED         | 2 x push-pull | Fixed cable with M12 plug | 33.8     |
| OBE12M-R101-S2EP-IO-0,3M-V31   | 12000                | Red LED         | 2 x push-pull | Fixed cable with M8 plug  | 33.8     |
| OBE12M-R101-S2EP-IO-V31        | 12000                | Red LED         | 2 x push-pull | M8 connector plug         | 41.4     |
| OBE12M-R101-SEP-IO-0,3M-V3     | 12000                | Red LED         | 1 x push-pull | Fixed cable with M8 plug  | 33.8     |
| OBE12M-R101-SEP-IO-V3          | 12000                | Red LED         | 1 x push-pull | M8 connector plug         | 33.8     |
| OBE20M-R101-S2EP-IO-0,3M-V1-L  | 20000                | Red laser diode | 2 x push-pull | Fixed cable with M12 plug | 33.8     |
| OBE20M-R101-S2EP-IO-0,3M-V31-L | 20000                | Red laser diode | 2 x push-pull | Fixed cable with M8 plug  | 33.8     |
| OBE20M-R101-S2EP-IO-IR         | 20000                | Infrared LED    | 2 x push-pull | Fixed cable               | 33.8     |
| OBE20M-R101-S2EP-IO-L          | 20000                | Red laser diode | 2 x push-pull | Fixed cable               | 33.8     |
| OBE20M-R101-S2EP-IO-V31-IR     | 20000                | Infrared LED    | 2 x push-pull | M8 connector plug         | 41.4     |
| OBE20M-R101-S2EP-IO-V31-L      | 20000                | Red laser diode | 2 x push-pull | M8 connector plug         | 41.4     |
| OBE20M-R101-SEP-IO-0,3M-V3-L   | 20000                | Red laser diode | 1 x push-pull | Fixed cable with M8 plug  | 33.8     |
| OBE20M-R101-SEP-IO-V3-L        | 20000                | Red laser diode | 1 x push-pull | M8 connector plug         | 33.8     |



### Accessories

|                             |  |
|-----------------------------|--|
| <b>IO-Link-Master02-USB</b> | IO-Link master, supply via USB port or separate power supply, LED indicators, M12 plug for sensor connection |
| <b>OMH-4.1</b>              | Mounting clamp   |
| <b>OMH-R101</b>             | Mounting clamp   |
| <b>OMH-R101-Front</b>       | Mounting clamp   |
| <b>V1-G-2M-PUR</b>          | Single-ended female cordset, M12, 4-pin, PUR cable   |
| <b>V3-GM-2M-PUR</b>         | Single-ended female cordset, M8, 3-pin, PUR cable  |
| <b>V31-GM-2M-PUR</b>        | Single-ended female cordset, M8, 4-pin, PUR cable  |
| <b>V31-WM-2M-PUR</b>        | Single-ended female cordset, M8, 4-pin, PUR cable  |



# R101 Series

## Retroreflective Sensors

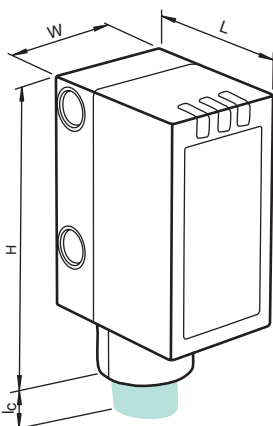


### Standard Technical Data

|                         |         |
|-------------------------|---------|
| Voltage type            | DC      |
| Operating voltage (min) | 10 V    |
| Operating voltage (max) | 30 V    |
| Housing length L        | 18.3 mm |
| Housing width W         | 13.9 mm |
| UL                      | ■       |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number                  | Function principle          | Detection range [mm] | Light type      | Interface | Operating elements         | Output type   | Connection type           | Height H |
|-------------------------------|-----------------------------|----------------------|-----------------|-----------|----------------------------|---------------|---------------------------|----------|
| OBG5000-R101-2EP-IO           | For clear object detection  | 3500                 | Red LED         | IO-Link   | Potentiometer, push-button | 2 x push-pull | Fixed cable               | 33.8     |
| OBG5000-R101-2EP-IO-0,3M-V1   | For clear object detection  | 3500                 | Red LED         | IO-Link   | Potentiometer, push-button | 2 x push-pull | Fixed cable with M12 plug | 33.8     |
| OBG5000-R101-2EP-IO-0,3M-V31  | For clear object detection  | 3500                 | Red LED         | IO-Link   | Potentiometer, push-button | 2 x push-pull | Fixed cable with M8 plug  | 33.8     |
| OBG5000-R101-2EP-IO-V31       | For clear object detection  | 3500                 | Red LED         | IO-Link   | Potentiometer, push-button | 2 x push-pull | M8 connector plug         | 41.4     |
| OBG5000-R101-2EP1-IO          | For clear object detection  | 3500                 | Red LED         | IO-Link   | Potentiometer, push-button | 2 x push-pull | Fixed cable               | 33.8     |
| OBG5000-R101-2EP1-IO-V31      | For clear object detection  | 3500                 | Red LED         | IO-Link   | Potentiometer, push-button | 2 x push-pull | M8 connector plug         | 41.4     |
| OBG5000-R101-2P1-IO           | With polarization filter    | 5000                 | Red LED         | IO-Link   |                            | 2 x push-pull | Fixed cable               | 31.9     |
| OBG5000-R101-2P1-IO-V31       | With polarization filter    | 5000                 | Red LED         | IO-Link   |                            | 2 x push-pull | M8 connector plug         | 39.5     |
| OBG5000-R101-EP-IO-0,3M-V3    | For clear object detection  | 3500                 | Red LED         | IO-Link   | Potentiometer, push-button | 1 x push-pull | Fixed cable with M8 plug  | 33.8     |
| OBG5000-R101-EP-IO-V3         | For clear object detection  | 3500                 | Red LED         | IO-Link   | Potentiometer, push-button | 1 x push-pull | M8 connector plug         | 41.4     |
| OBR7000-R101-2EP-IO-1R-IR     | Without polarization filter | 7000                 | Infrared LED    | IO-Link   | Potentiometer              | 2 x push-pull | Fixed cable               | 33.8     |
| OBR7000-R101-2EP-IO-V31-1R-IR | Without polarization filter | 7000                 | Infrared LED    | IO-Link   | Potentiometer              | 2 x push-pull | M8 connector plug         | 41.4     |
| OBR7500-R101-2EP-IO           | With polarization filter    | 7500                 | Red LED         | IO-Link   | Potentiometer              | 2 x push-pull | Fixed cable               | 33.8     |
| OBR7500-R101-2EP-IO-0,3M-V1   | With polarization filter    | 7500                 | Red LED         | IO-Link   | Potentiometer              | 2 x push-pull | Fixed cable with M12 plug | 33.8     |
| OBR7500-R101-2EP-IO-0,3M-V31  | With polarization filter    | 7500                 | Red LED         | IO-Link   | Potentiometer              | 2 x push-pull | Fixed cable with M8 plug  | 33.8     |
| OBR7500-R101-2EP-IO-V31       | With polarization filter    | 7500                 | Red LED         | IO-Link   | Potentiometer              | 2 x push-pull | M8 connector plug         | 41.4     |
| OBR7500-R101-E5-0,3M-V1       | With polarization filter    | 7500                 | Red LED         |           | Potentiometer              | PNP           | Fixed cable with M12 plug | 33.8     |
| OBR7500-R101-EP-IO-0,3M-V3    | With polarization filter    | 7500                 | Red LED         | IO-Link   | Potentiometer              | 1 x push-pull | Fixed cable with M8 plug  | 33.8     |
| OBR7500-R101-EP-IO-V3         | With polarization filter    | 7500                 | Red LED         | IO-Link   | Potentiometer              | 1 x push-pull | M8 connector plug         | 41.4     |
| OBR7500-R101-P1-Y0447         | With polarization filter    | 7500                 | Red LED         |           |                            | 1 x push-pull | M8 connector plug         | 39.5     |
| OBR10M-R101-2EP-IO-1R-IR      | Without polarization filter | 10000                | Infrared LED    | IO-Link   | Potentiometer              | 2 x push-pull | Fixed cable               | 33.8     |
| OBR10M-R101-2EP-IO-V31-1R-IR  | Without polarization filter | 10000                | Infrared LED    | IO-Link   | Potentiometer              | 2 x push-pull | M8 connector plug         | 41.4     |
| OBR12M-R101-2EP-IO-0,3M-V1-L  | With polarization filter    | 12000                | Red laser diode | IO-Link   | Potentiometer              | 2 x push-pull | Fixed cable with M12 plug | 33.8     |
| OBR12M-R101-2EP-IO-0,3M-V31-L | With polarization filter    | 12000                | Red laser diode | IO-Link   | Potentiometer              | 2 x push-pull | M8 connector plug         | 41.4     |
| OBR12M-R101-2EP-IO-L          | With polarization filter    | 12000                | Red laser diode | IO-Link   | Potentiometer              | 2 x push-pull | Fixed cable               | 33.8     |
| OBR12M-R101-2EP-IO-V31-L      | With polarization filter    | 12000                | Red laser diode | IO-Link   | Potentiometer              | 2 x push-pull | M8 connector plug         | 41.4     |
| OBR12M-R101-EP-IO-0,3M-V3-L   | With polarization filter    | 12000                | Red laser diode | IO-Link   | Potentiometer              | 1 x push-pull | Fixed cable with M8 plug  | 33.8     |
| OBR12M-R101-EP-IO-V3-L        | With polarization filter    | 12000                | Red laser diode | IO-Link   | Potentiometer              | 1 x push-pull | M8 connector plug         | 41.4     |



### Accessories

|                |  |
|----------------|--|
| OFR-100/100    | Optical reflective film, 100 mm x 100 mm                 |
| OMH-4.1        | Mounting clamp   |
| OMH-R101       | Mounting clamp   |
| OMH-R101-Front | Mounting clamp   |
| REF-H32G-2     | Reflector  |
| REF-H33        | Reflector with screw fixing                              |
| REF-H50        | Rectangular reflector, 51 mm x 61 mm, mounting holes     |
| REF-H85-2      | Rectangular reflector, 84.5 mm x 84.5 mm                 |
| REF-MVR10      | Rectangular reflector with microstructure, 60 mm x 19 mm |
| REF-ORR50G-2   | Reflector  |

# R101 Series Diffuse Mode Sensors

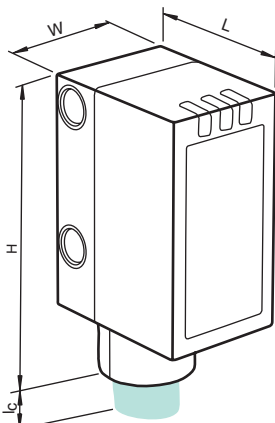


| Standard Technical Data |         |
|-------------------------|---------|
| Interface               | IO-Link |
| Voltage type            | DC      |
| Operating voltage (min) | 10 V    |
| Operating voltage (max) | 30 V    |
| Housing length L        | 18.3 mm |
| Housing width W         | 13.9 mm |
| UL                      |         |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number                   | Function principle          | Detection range [mm] | Light type      | Operating elements         | Output type   | Connection type           | Height H |
|--------------------------------|-----------------------------|----------------------|-----------------|----------------------------|---------------|---------------------------|----------|
| OBT20-R101-2P1-IO              | With background suppression | 20                   | Red LED         |                            | 2 x push-pull | Fixed cable               | 31.9     |
| OBT20-R101-2P1-IO-0,3M-V1      | With background suppression | 20                   | Red LED         |                            | 2 x push-pull | Fixed cable with M12 plug | 31.9     |
| OBT20-R101-2P1-IO-0,3M-V31     | With background suppression | 20                   | Red LED         |                            | 2 x push-pull | Fixed cable with M8 plug  | 31.9     |
| OBT20-R101-2P1-IO-V31          | With background suppression | 20                   | Red LED         |                            | 2 x push-pull | M8 connector plug         | 31.9     |
| OBT20-R101-2P1-IO-V31-IR       | With background suppression | 20                   | Infrared LED    |                            | 2 x push-pull | M8 connector plug         | 31.9     |
| OBT40-R101-2P1-IO              | With background suppression | 40                   | Red LED         |                            | 2 x push-pull | Fixed cable               | 31.9     |
| OBT40-R101-2P1-IO-0,3M-V1      | With background suppression | 40                   | Red LED         |                            | 2 x push-pull | Fixed cable with M12 plug | 31.9     |
| OBT40-R101-2P1-IO-V31          | With background suppression | 40                   | Red LED         |                            | 2 x push-pull | M8 connector plug         | 31.9     |
| OBT40-R101-2P1-IO-V31-IR       | With background suppression | 40                   | Infrared LED    |                            | 2 x push-pull | M8 connector plug         | 31.9     |
| OBT60-R101-2P1-IO              | With background suppression | 60                   | Red LED         |                            | 2 x push-pull | Fixed cable               | 31.9     |
| OBT60-R101-2P1-IO-0,3M-V1      | With background suppression | 60                   | Red LED         |                            | 2 x push-pull | Fixed cable with M12 plug | 31.9     |
| OBT60-R101-2P1-IO-0,3M-V31     | With background suppression | 60                   | Red LED         |                            | 2 x push-pull | Fixed cable with M8 plug  | 31.9     |
| OBT60-R101-2P1-IO-IR           | With background suppression | 60                   | Infrared LED    |                            | 2 x push-pull | Fixed cable               | 31.9     |
| OBT60-R101-2P1-IO-V31          | With background suppression | 60                   | Red LED         |                            | 2 x push-pull | M8 connector plug         | 31.9     |
| OBT60-R101-2P1-IO-V31-IR       | With background suppression | 60                   | Infrared LED    |                            | 2 x push-pull | M8 connector plug         | 31.9     |
| OBT80-R101-2P1-IO              | With background suppression | 80                   | Red LED         |                            | 2 x push-pull | Fixed cable               | 31.9     |
| OBT80-R101-2P1-IO-0,3M-V1      | With background suppression | 80                   | Red LED         |                            | 2 x push-pull | Fixed cable with M12 plug | 31.9     |
| OBT80-R101-2P1-IO-0,3M-V31     | With background suppression | 80                   | Red LED         |                            | 2 x push-pull | Fixed cable with M8 plug  | 31.9     |
| OBT80-R101-2P1-IO-V31          | With background suppression | 80                   | Red LED         |                            | 2 x push-pull | M8 connector plug         | 31.9     |
| OBT80-R101-2P1-IO-V31-IR       | With background suppression | 80                   | Infrared LED    |                            | 2 x push-pull | M8 connector plug         | 31.9     |
| OBT100-R101-2EP-IO-0,3M-V1-L   | With background suppression | 100                  | Red laser diode | Potentiometer              | 2 x push-pull | Fixed cable with M12 plug | 33.8     |
| OBT100-R101-2EP-IO-0,3M-V31-L  | With background suppression | 100                  | Red laser diode | Potentiometer              | 2 x push-pull | Fixed cable with M8 plug  | 33.8     |
| OBT100-R101-2EP-IO-1T-L        | With background evaluation  | 100                  | Red laser diode | Potentiometer              | 2 x push-pull | Fixed cable               | 33.8     |
| OBT100-R101-2EP-IO-1T-L-Y0244  | With background evaluation  | 100                  | Red laser diode | Potentiometer              | 2 x push-pull | Fixed cable with M8 plug  | 33.8     |
| OBT100-R101-2EP-IO-1T-L-Y0245  | With background evaluation  | 100                  | Red laser diode | Potentiometer              | 2 x push-pull | Fixed cable with M12 plug | 33.8     |
| OBT100-R101-2EP-IO-L           | With background suppression | 100                  | Red laser diode | Potentiometer              | 2 x push-pull | Fixed cable               | 33.8     |
| OBT100-R101-2EP-IO-V31-1T-L    | With background evaluation  | 100                  | Red laser diode | Potentiometer              | 2 x push-pull | M8 connector plug         | 41.4     |
| OBT100-R101-2EP-IO-V31-L       | With background suppression | 100                  | Red laser diode | Potentiometer              | 2 x push-pull | M8 connector plug         | 41.4     |
| OBT100-R101-EP-IO-0,3M-V3-1T-L | With background evaluation  | 100                  | Red laser diode | Potentiometer              | 1 x push-pull | Fixed cable with M8 plug  | 33.8     |
| OBT100-R101-EP-IO-0,3M-V3-L    | With background suppression | 100                  | Red laser diode | Potentiometer              | 1 x push-pull | Fixed cable with M8 plug  | 33.8     |
| OBT100-R101-EP-IO-V3-1T-L      | With background evaluation  | 100                  | Red laser diode | Potentiometer              | 1 x push-pull | M8 connector plug         | 41.4     |
| OBT100-R101-EP-IO-V3-L         | With background suppression | 100                  | Red laser diode | Potentiometer              | 1 x push-pull | M8 connector plug         | 41.4     |
| OBT150-R101-2EP1-IO            | With background suppression | 150                  | Red LED         | Potentiometer              | 2 x push-pull | Fixed cable               | 33.8     |
| OBT150-R101-2EP1-IO-0,3M-V1    | With background suppression | 150                  | Red LED         | Potentiometer              | 2 x push-pull | Fixed cable with M12 plug | 33.8     |
| OBT150-R101-2EP1-IO-V31        | With background suppression | 150                  | Red LED         | Potentiometer              | 2 x push-pull | M8 connector plug         | 33.8     |
| OBT150-R101-2EP1-IO-V31-IR     | With background suppression | 150                  | Infrared LED    | Potentiometer              | 2 x push-pull | M8 connector plug         | 33.8     |
| OQT150-R101-2EP-IO             | With multiple switch points | 150                  | Red LED         | Potentiometer, push-button | 2 x push-pull | Fixed cable               | 33.8     |
| OQT150-R101-2EP-IO-0,3M-V1     | With multiple switch points | 150                  | Red LED         | Potentiometer, push-button | 2 x push-pull | Fixed cable with M12 plug | 33.8     |
| OQT150-R101-2EP-IO-0,3M-V1-L   | With multiple switch points | 150                  | Red laser diode | Potentiometer, push-button | 2 x push-pull | Fixed cable with M12 plug | 33.8     |
| OQT150-R101-2EP-IO-0,3M-V31    | With multiple switch points | 150                  | Red LED         | Potentiometer, push-button | 2 x push-pull | Fixed cable with M8 plug  | 33.8     |

| Model number                     | Function principle          | Detection range [mm] | Light type      | Operating elements         | Output type   | Connection type           | Height H |
|----------------------------------|-----------------------------|----------------------|-----------------|----------------------------|---------------|---------------------------|----------|
| OQT150-R101-2EP-IO-0,3M-V31-L    | With multiple switch points | 150                  | Red laser diode | Potentiometer, push-button | 2 x push-pull | Fixed cable with M8 plug  | 33.8     |
| OQT150-R101-2EP-IO-IR            | With multiple switch points | 150                  | Infrared LED    | Potentiometer, push-button | 2 x push-pull | Fixed cable               | 33.8     |
| OQT150-R101-2EP-IO-L             | With multiple switch points | 150                  | Red laser diode | Potentiometer, push-button | 2 x push-pull | Fixed cable               | 33.8     |
| OQT150-R101-2EP-IO-V31           | With multiple switch points | 150                  | Red LED         | Potentiometer, push-button | 2 x push-pull | M8 connector plug         | 41.4     |
| OQT150-R101-2EP-IO-V31-IR        | With multiple switch points | 150                  | Infrared LED    | Potentiometer, push-button | 2 x push-pull | M8 connector plug         | 41.4     |
| OQT150-R101-2EP-IO-V31-L         | With multiple switch points | 150                  | Red laser diode | Potentiometer, push-button | 2 x push-pull | M8 connector plug         | 41.4     |
| OQT150-R101-EP-IO-0,3M-V3        | With multiple switch points | 150                  | Red LED         | Potentiometer, push-button | 1 x push-pull | Fixed cable with M8 plug  | 33.8     |
| OQT150-R101-EP-IO-0,3M-V3-L      | With multiple switch points | 150                  | Red laser diode | Potentiometer, push-button | 1 x push-pull | Fixed cable with M8 plug  | 33.8     |
| OQT150-R101-EP-IO-V3             | With multiple switch points | 150                  | Red LED         | Potentiometer, push-button | 1 x push-pull | M8 connector plug         | 41.4     |
| OQT150-R101-EP-IO-V3-L           | With multiple switch points | 150                  | Red laser diode | Potentiometer, push-button | 1 x push-pull | M8 connector plug         | 41.4     |
| OBT300-R101-2EP-IO-0,3M-V1-L     | With background suppression | 300                  | Red laser diode | Potentiometer              | 2 x push-pull | Fixed cable with M12 plug | 33.8     |
| OBT300-R101-2EP-IO-0,3M-V31-L    | With background suppression | 300                  | Red laser diode | Potentiometer              | 2 x push-pull | Fixed cable with M8 plug  | 33.8     |
| OBT300-R101-2EP-IO-1T-L          | With background evaluation  | 300                  | Red laser diode | Potentiometer              | 2 x push-pull | Fixed cable               | 33.8     |
| OBT300-R101-IO-1T-L-Y0112        | With background evaluation  | 300                  | Red laser diode | Potentiometer              | 2 x push-pull | Fixed cable with M8 plug  | 33.8     |
| OBT300-R101-IO-1T-L-Y0113        | With background evaluation  | 300                  | Red laser diode | Potentiometer              | 2 x push-pull | Fixed cable with M12 plug | 33.8     |
| OBT300-R101-2EP-IO-L             | With background suppression | 300                  | Red laser diode | Potentiometer              | 2 x push-pull | Fixed cable               | 33.8     |
| OBT300-R101-2EP-IO-0,3M-V31-1T-L | With background evaluation  | 300                  | Red laser diode | Potentiometer              | 2 x push-pull | M8 connector plug         | 41.4     |
| OBT300-R101-2EP-IO-V31-L         | With background suppression | 300                  | Red laser diode | Potentiometer              | 2 x push-pull | M8 connector plug         | 41.4     |
| OBT300-R101-EP-IO-0,3M-V3-1T-L   | With background evaluation  | 300                  | Red laser diode | Potentiometer              | 1 x push-pull | Fixed cable with M8 plug  | 33.8     |
| OBT300-R101-EP-IO-0,3M-V3-L      | With background suppression | 300                  | Red laser diode | Potentiometer              | 1 x push-pull | Fixed cable with M8 plug  | 33.8     |
| OBT300-R101-EP-IO-V3-1T-L        | With background evaluation  | 300                  | Red laser diode | Potentiometer              | 1 x push-pull | M8 connector plug         | 41.4     |
| OBT300-R101-EP-IO-V3-L           | With background suppression | 300                  | Red laser diode | Potentiometer              | 1 x push-pull | M8 connector plug         | 41.4     |
| OBT350-R101-2EP-IO               | With background suppression | 350                  | Red LED         | Potentiometer              | 2 x push-pull | Fixed cable               | 33.8     |
| OBT350-R101-2EP-IO-0,3M-V1       | With background suppression | 350                  | Red LED         | Potentiometer              | 2 x push-pull | Fixed cable with M12 plug | 33.8     |
| OBT350-R101-2EP-IO-0,3M-V1-1T    | With background evaluation  | 350                  | Red LED         | Potentiometer              | 2 x push-pull | Fixed cable with M12 plug | 33.8     |
| OBT350-R101-2EP-IO-0,3M-V31      | With background suppression | 350                  | Red LED         | Potentiometer              | 2 x push-pull | Fixed cable with M8 plug  | 33.8     |
| OBT350-R101-2EP-IO-0,3M-V31-1T   | With background evaluation  | 350                  | Red LED         | Potentiometer              | 2 x push-pull | Fixed cable with M8 plug  | 33.8     |
| OBT350-R101-2EP-IO-1T            | With background evaluation  | 350                  | Red LED         | Potentiometer              | 2 x push-pull | Fixed cable               | 33.8     |
| OBT350-R101-2EP-IO-1T-IR         | With background evaluation  | 350                  | Infrared LED    | Potentiometer              | 2 x push-pull | Fixed cable               | 33.8     |
| OBT350-R101-2EP-IO-IR            | With background suppression | 350                  | Infrared LED    | Potentiometer              | 2 x push-pull | Fixed cable               | 33.8     |
| OBT350-R101-2EP-IO-V31           | With background suppression | 350                  | Red LED         | Potentiometer              | 2 x push-pull | M8 connector plug         | 41.4     |
| OBT350-R101-2EP-IO-V31-1T        | With background evaluation  | 350                  | Red LED         | Potentiometer              | 2 x push-pull | M8 connector plug         | 41.4     |
| OBT350-R101-2EP-IO-V31-1T-IR     | With background evaluation  | 350                  | Infrared LED    | Potentiometer              | 2 x push-pull | M8 connector plug         | 41.4     |
| OBT350-R101-2EP-IO-V31-IR        | With background suppression | 350                  | Infrared LED    | Potentiometer              | 2 x push-pull | M8 connector plug         | 41.4     |
| OBT350-R101-EP-IO-0,3M-V3        | With background suppression | 350                  | Red LED         | Potentiometer              | 1 x push-pull | Fixed cable with M8 plug  | 33.8     |
| OBT350-R101-EP-IO-0,3M-V3-1T     | With background evaluation  | 350                  | Red LED         | Potentiometer              | 1 x push-pull | Fixed cable with M8 plug  | 33.8     |
| OBT350-R101-EP-IO-V3             | With background suppression | 350                  | Red LED         | Potentiometer              | 1 x push-pull | M8 connector plug         | 41.4     |
| OBT350-R101-EP-IO-V3-1T          | With background evaluation  | 350                  | Red LED         | Potentiometer              | 1 x push-pull | M8 connector plug         | 41.4     |
| OBD1000-R101-2EP-IO              | Energetic                   | 1000                 | Red LED         | Potentiometer              | 2 x push-pull | Fixed cable               | 33.8     |
| OBD1000-R101-2EP-IO-0,3M-V1      | Energetic                   | 1000                 | Red LED         | Potentiometer              | 2 x push-pull | Fixed cable with M12 plug | 33.8     |
| OBD1000-R101-2EP-IO-0,3M-V31     | Energetic                   | 1000                 | Red LED         | Potentiometer              | 2 x push-pull | Fixed cable with M8 plug  | 33.8     |
| OBD1000-R101-2EP-IO-V31          | Energetic                   | 1000                 | Red LED         | Potentiometer              | 2 x push-pull | M8 connector plug         | 41.4     |
| OBD1000-R101-EP-IO-0,3M-V3       | Energetic                   | 1000                 | Red LED         | Potentiometer              | 1 x push-pull | Fixed cable with M8 plug  | 33.8     |
| OBD1000-R101-EP-IO-V3            | Energetic                   | 1000                 | Red LED         | Potentiometer              | 1 x push-pull | M8 connector plug         | 41.4     |
| OBD1100-R101-2EP-IO-IR           | Energetic                   | 1100                 | Infrared LED    | Potentiometer              | 2 x push-pull | Fixed cable               | 33.8     |
| OBD1100-R101-2EP-IO-V31-IR       | Energetic                   | 1100                 | Infrared LED    | Potentiometer              | 2 x push-pull | M8 connector plug         | 41.4     |



#### Accessories

|                             |  |
|-----------------------------|--|
| <b>IO-Link-Master02-USB</b> | IO-Link master, supply via USB port or separate power supply, LED indicators, M12 plug for sensor connection |
| <b>OMH-4.1</b>              | Mounting clamp   |
| <b>OMH-R101</b>             | Mounting clamp   |
| <b>OMH-R101-Front</b>       | Mounting clamp   |
| <b>V1-W-2M-PUR</b>          | Single-ended female cordset, M12, 4-pin, PUR cable   |
| <b>V3-GM-2M-PUR</b>         | Single-ended female cordset, M8, 3-pin, PUR cable  |
| <b>V3-WM-2M-PUR</b>         | Single-ended female cordset, M8, 3-pin, PUR cable  |
| <b>V31-GM-2M-PUR</b>        | Single-ended female cordset, M8, 4-pin, PUR cable  |
| <b>V31-WM-2M-PUR</b>        | Single-ended female cordset, M8, 4-pin, PUR cable  |

# R102 Series Thru-Beam Sensors

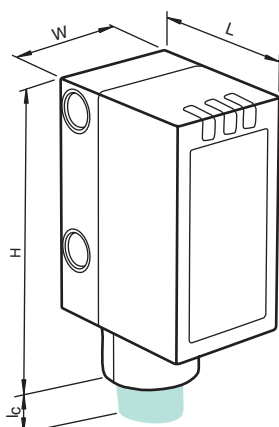


### Standard Technical Data

|                                |                  |
|--------------------------------|------------------|
| <b>Function principle</b>      | Thru-beam sensor |
| <b>Interface</b>               | IO-Link          |
| <b>Operating elements</b>      | Potentiometer    |
| <b>Voltage type</b>            | DC               |
| <b>Operating voltage (min)</b> | 10 V             |
| <b>Operating voltage (max)</b> | 30 V             |
| <b>Housing length L</b>        | 18.3 mm          |
| <b>Housing width W</b>         | 13.9 mm          |
| <b>Housing height H</b>        | 33.8 mm          |
| <b>UL</b>                      | ■                |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number              | Detection range [mm] | Light type      | Output type   | Connection type   |
|---------------------------|----------------------|-----------------|---------------|-------------------|
| OBE12M-R102-S2EP-IO       | 12000                | Red LED         | 2 x push-pull | Fixed cable       |
| OBE12M-R102-S2EP-IO-V31   | 12000                | Red LED         | 2 x push-pull | M8 connector plug |
| OBE12M-R102-SEP-IO-V31    | 12000                | Red LED         | 1 x push-pull | M8 connector plug |
| OBE20M-R102-S2EP-IO-V31-L | 20000                | Red laser diode | 2 x push-pull | M8 connector plug |



### Accessories

|                       |   |
|-----------------------|---|
| <b>OMH-4.1</b>        | Mounting clamp                                    |
| <b>OMH-R101</b>       | Mounting clamp                                    |
| <b>OMH-R101-Front</b> | Mounting clamp                                    |
| <b>V31-WM-2M-PUR</b>  | Single-ended female cordset, M8, 4-pin, PUR cable |

# R102 Series Retroreflective Sensors

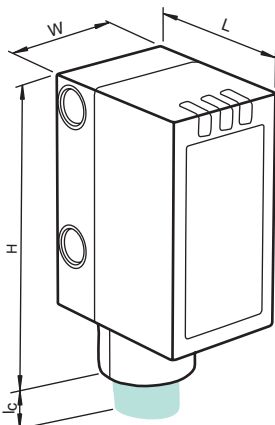


### Standard Technical Data

|                                |   |
|--------------------------------|---|
| <b>Function principle</b>      | Retroreflective sensor for clear object detection |
| <b>Detection range</b>         | 3500 mm   |
| <b>Light type</b>              | Red LED   |
| <b>Interface</b>               | IO-Link   |
| <b>Operating elements</b>      | Potentiometer, push-button                        |
| <b>Voltage type</b>            | DC  |
| <b>Operating voltage (min)</b> | 10 V  |
| <b>Operating voltage (max)</b> | 30 V  |
| <b>Connection type</b>         | M8 connector plug                                 |
| <b>Housing length L</b>        | 18.3 mm   |
| <b>Housing width W</b>         | 13.9 mm   |
| <b>Housing height H</b>        | 41.4 mm   |
| <b>UL</b>                      | ■   |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number                    | Output type   |
|---------------------------------|---------------|
| <b>OBG5000-R102-2EP-IO-V31</b>  | 2 x push-pull |
| <b>OBG5000-R102-2EP1-IO-V31</b> | 2 x push-pull |
| <b>OBG5000-R102-EP-IO-V31</b>   | 1 x push-pull |



### Accessories

|                             |  |
|-----------------------------|--|
| <b>IO-Link-Master02-USB</b> | IO-Link master, supply via USB port or separate power supply, LED indicators, M12 plug for sensor connection |
| <b>REF-H33</b>              | Reflector with screw fixing  |
| <b>REF-H85-2</b>            | Rectangular reflector, 84.5 mm x 84.5 mm, mounting holes   |
| <b>V31-GM-2M-PUR</b>        | Single-ended female cordset, M8, 4-pin, PUR cable  |
| <b>V31-WM-2M-PUR</b>        | Single-ended female cordset, M8, 4-pin, PUR cable  |

# R102 Series Diffuse Mode Sensors

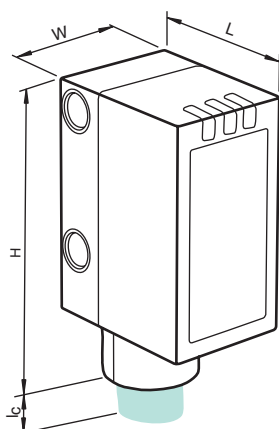


### Standard Technical Data

|                                |  |
|--------------------------------|--|
| <b>Function principle</b>      | Triangulation sensor with background suppression |
| <b>Voltage type</b>            | DC   |
| <b>Operating voltage (min)</b> | 10 V   |
| <b>Operating voltage (max)</b> | 30 V   |
| <b>Housing length L</b>        | 18.3 mm  |
| <b>Housing width W</b>         | 13.9 mm  |
| <b>Housing height H</b>        | 31.9 mm  |
| <b>UL</b>                      | ■  |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number              | Detection range [mm] | Light type   | Interface | Output type   | Connection type           |
|---------------------------|----------------------|--------------|-----------|---------------|---------------------------|
| OBT20-R102-2P1-IO         | 20                   | Red LED      | IO-Link   | 2 x push-pull | Fixed cable               |
| OBT20-R102-2P1-IO-0,3M-V1 | 20                   | Red LED      | IO-Link   | 2 x push-pull | Fixed cable with M12 plug |
| OBT20-R102-2P1-IO-IR      | 20                   | Infrared LED | IO-Link   | 2 x push-pull | Fixed cable               |
| OBT20-R102-2P1-IO-V31     | 20                   | Red LED      | IO-Link   | 2 x push-pull | M8 connector plug         |
| OBT20-R102-2P1-IO-V31-IR  | 20                   | Infrared LED | IO-Link   | 2 x push-pull | M8 connector plug         |
| OBT20-R102-P1-IO-V31      | 20                   | Red LED      | IO-Link   | 1 x push-pull | M8 connector plug         |
| OBT40-R102-2P1-IO         | 40                   | Red LED      | IO-Link   | 2 x push-pull | Fixed cable               |
| OBT40-R102-2P1-IO-0,3M-V1 | 40                   | Red LED      | IO-Link   | 2 x push-pull | Fixed cable with M12 plug |
| OBT40-R102-2P1-IO-IR      | 40                   | Infrared LED | IO-Link   | 2 x push-pull | Fixed cable               |
| OBT40-R102-2P1-IO-V31     | 40                   | Red LED      | IO-Link   | 2 x push-pull | M8 connector plug         |
| OBT40-R102-2P1-IO-V31-IR  | 40                   | Infrared LED | IO-Link   | 2 x push-pull | M8 connector plug         |
| OBT40-R102-A0-V31         | 40                   | Red LED      |           | NPN           | M8 connector plug         |
| OBT40-R102-P1-IO-V31      | 40                   | Red LED      | IO-Link   | 1 x push-pull | M8 connector plug         |
| OBT40-R102-P1-IO-V31-IR   | 40                   | Infrared LED | IO-Link   | 1 x push-pull | M8 connector plug         |
| OBT60-R102-2P1-IO         | 60                   | Red LED      | IO-Link   | 2 x push-pull | Fixed cable               |
| OBT60-R102-2P1-IO-0,3M-V1 | 60                   | Red LED      | IO-Link   | 2 x push-pull | Fixed cable with M12 plug |
| OBT60-R102-2P1-IO-V31     | 60                   | Red LED      | IO-Link   | 2 x push-pull | M8 connector plug         |
| OBT60-R102-2P1-IO-V31-IR  | 60                   | Infrared LED | IO-Link   | 2 x push-pull | M8 connector plug         |
| OBT60-R102-P1-IO-V31      | 60                   | Red LED      | IO-Link   | 1 x push-pull | M8 connector plug         |
| OBT80-R102-2P1-IO         | 80                   | Red LED      | IO-Link   | 2 x push-pull | Fixed cable               |
| OBT80-R102-2P1-IO-0,3M-V1 | 80                   | Red LED      | IO-Link   | 2 x push-pull | Fixed cable with M12 plug |
| OBT80-R102-2P1-IO-IR      | 80                   | Infrared LED | IO-Link   | 2 x push-pull | Fixed cable               |
| OBT80-R102-2P1-IO-V31     | 80                   | Red LED      | IO-Link   | 2 x push-pull | M8 connector plug         |
| OBT80-R102-2P1-IO-V31-IR  | 80                   | Infrared LED | IO-Link   | 2 x push-pull | M8 connector plug         |



### Accessories

|                             |  |
|-----------------------------|--|
| <b>IO-Link-Master02-USB</b> | IO-Link master, supply via USB port or separate power supply, LED indicators, M12 plug for sensor connection |
| <b>V1-W-2M-PUR</b>          | Single-ended female cordset, M12, 4-pin, PUR cable   |
| <b>V31-GM-2M-PUR</b>        | Single-ended female cordset, M8, 4-pin, PUR cable  |
| <b>V31-WM-2M-PUR</b>        | Single-ended female cordset, M8, 4-pin, PUR cable  |



# R103 Series Thru-Beam Sensors

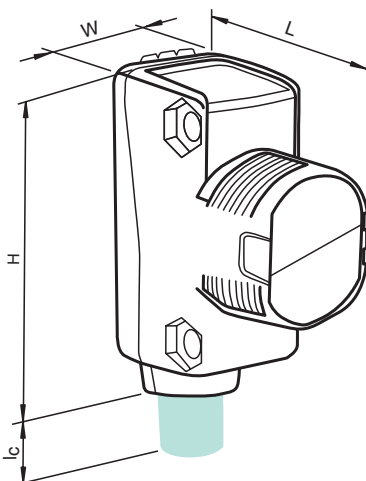


### Standard Technical Data

|                                |                  |
|--------------------------------|------------------|
| <b>Function principle</b>      | Thru-beam sensor |
| <b>Interface</b>               | IO-Link          |
| <b>Operating elements</b>      | Potentiometer    |
| <b>Voltage type</b>            | DC               |
| <b>Operating voltage (min)</b> | 10 V             |
| <b>Operating voltage (max)</b> | 30 V             |
| <b>Housing length L</b>        | 26.7 mm          |
| <b>Housing width W</b>         | 15 mm            |
| <b>UL</b>                      | ■                |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number                   | Detection range [mm] | Light type      | Output type   | Connection type           | Height H |
|--------------------------------|----------------------|-----------------|---------------|---------------------------|----------|
| OBE10M-R103-S2EP-IO            | 10000                | Red LED         | 2 x push-pull | Fixed cable               | 36.5     |
| OBE10M-R103-S2EP-IO-0,3M-V1    | 10000                | Red LED         | 2 x push-pull | Fixed cable with M12 plug | 36.5     |
| OBE10M-R103-S2EP-IO-0,3M-V31   | 10000                | Red LED         | 2 x push-pull | Fixed cable with M8 plug  | 36.5     |
| OBE10M-R103-S2EP-IO-V31        | 10000                | Red LED         | 2 x push-pull | M8 connector plug         | 43.9     |
| OBE10M-R103-SEP-IO-0,3M-V3     | 10000                | Red LED         | 1 x push-pull | Fixed cable with M8 plug  | 36.5     |
| OBE10M-R103-SEP-IO-V3          | 10000                | Red LED         | 1 x push-pull | M8 connector plug         | 43.9     |
| OBE20M-R103-S2EP-IO-0,3M-V1-L  | 20000                | Red laser diode | 2 x push-pull | Fixed cable with M12 plug | 36.5     |
| OBE20M-R103-S2EP-IO-0,3M-V31-L | 20000                | Red laser diode | 2 x push-pull | Fixed cable with M8 plug  | 36.5     |
| OBE20M-R103-S2EP-IO-L          | 20000                | Red laser diode | 2 x push-pull | Fixed cable               | 36.5     |
| OBE20M-R103-S2EP-IO-V31-L      | 20000                | Red laser diode | 2 x push-pull | M8 connector plug         | 43.9     |
| OBE20M-R103-SEP-IO-0,3M-V3-L   | 20000                | Red laser diode | 1 x push-pull | Fixed cable with M8 plug  | 36.5     |
| OBE20M-R103-SEP-IO-V3-L        | 20000                | Red laser diode | 1 x push-pull | M8 connector plug         | 43.9     |



### Accessories

|                             |  |
|-----------------------------|--|
| <b>IO-Link-Master02-USB</b> | IO-Link master, supply via USB port or separate power supply, LED indicators, M12 plug for sensor connection |
| <b>OMH-ML100-03</b>         | Mounting aid for circular profile $\varnothing$ 12 mm or flat profile 1.5 mm ... 3 mm                        |
| <b>OMH-ML100-031</b>        | Mounting aid for circular profile $\varnothing$ 10 mm ... 14 mm or flat profile 1 mm ... 5 mm                |
| <b>OMH-ML100-09</b>         | Mounting aid for circular profile $\varnothing$ 12 mm or flat profile 1.5 mm ... 3 mm                        |
| <b>OMH-R10X-04</b>          | Mounting bracket   |
| <b>OMH-R10X-10</b>          | Mounting bracket   |
| <b>V31-GM-2M-PUR</b>        | Single-ended female cordset, M8, 4-pin, PUR cable  |
| <b>V31-WM-2M-PUR</b>        | Single-ended female cordset, M8, 4-pin, PUR cable  |

# R103 Series Retroreflective Sensors

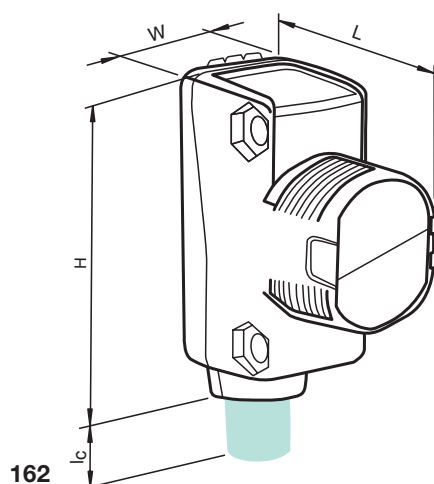


### Standard Technical Data

|                                |         |
|--------------------------------|---------|
| <b>Interface</b>               | IO-Link |
| <b>Voltage type</b>            | DC      |
| <b>Operating voltage (min)</b> | 10 V    |
| <b>Operating voltage (max)</b> | 30 V    |
| <b>Housing length L</b>        | 26.7 mm |
| <b>Housing width W</b>         | 15 mm   |
| <b>UL</b>                      | ■       |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number                         | Function principle         | Detection range [mm] | Light type      | Operating elements         | Output type   | Connection type           | Height H |
|--------------------------------------|----------------------------|----------------------|-----------------|----------------------------|---------------|---------------------------|----------|
| <b>OBG4000-R103-2EP-IO</b>           | For clear object detection | 3500                 | Red LED         | Potentiometer, push-button | 2 x push-pull | Fixed cable               | 36.5     |
| <b>OBG4000-R103-2EP-IO-0,3M-V1</b>   | For clear object detection | 3500                 | Red LED         | Potentiometer, push-button | 2 x push-pull | Fixed cable with M12 plug | 36.5     |
| <b>OBG4000-R103-2EP-IO-0,3M-V31</b>  | For clear object detection | 3500                 | Red LED         | Potentiometer, push-button | 2 x push-pull | Fixed cable with M8 plug  | 36.5     |
| <b>OBG4000-R103-2EP-IO-V31</b>       | For clear object detection | 3500                 | Red LED         | Potentiometer, push-button | 2 x push-pull | M8 connector plug         | 43.9     |
| <b>OBG4000-R103-EP-IO-0,3M-V3</b>    | For clear object detection | 3500                 | Red LED         | Potentiometer, push-button | 1 x push-pull | Fixed cable with M8 plug  | 36.5     |
| <b>OBG4000-R103-EP-IO-V3</b>         | For clear object detection | 3500                 | Red LED         | Potentiometer, push-button | 1 x push-pull | M8 connector plug         | 43.9     |
| <b>OBR6000-R103-EP-IO-V3</b>         | With polarization filter   | 6000                 | Red LED         | Potentiometer              | 1 x push-pull | M8 connector plug         | 43.9     |
| <b>OBR6000-R103-2EP-IO</b>           | With polarization filter   | 6000                 | Red LED         | Potentiometer              | 2 x push-pull | Fixed cable               | 36.5     |
| <b>OBR6000-R103-2EP-IO-0,3M-V1</b>   | With polarization filter   | 6000                 | Red LED         | Potentiometer              | 2 x push-pull | Fixed cable with M12 plug | 36.5     |
| <b>OBR6000-R103-2EP-IO-0,3M-V31</b>  | With polarization filter   | 6000                 | Red LED         | Potentiometer              | 2 x push-pull | Fixed cable with M8 plug  | 36.5     |
| <b>OBR6000-R103-2EP-IO-V31</b>       | With polarization filter   | 6000                 | Red LED         | Potentiometer              | 2 x push-pull | M8 connector plug         | 43.9     |
| <b>OBR6000-R103-EP-IO-0,3M-V3</b>    | With polarization filter   | 6000                 | Red LED         | Potentiometer              | 1 x push-pull | Fixed cable with M8 plug  | 36.5     |
| <b>OBR12M-R103-2EP-IO-0,3M-V1-L</b>  | With polarization filter   | 12000                | Red laser diode | Potentiometer              | 2 x push-pull | Fixed cable with M12 plug | 36.5     |
| <b>OBR12M-R103-2EP-IO-0,3M-V31-L</b> | With polarization filter   | 12000                | Red laser diode | Potentiometer              | 2 x push-pull | Fixed cable with M8 plug  | 36.5     |
| <b>OBR12M-R103-2EP-IO-L</b>          | With polarization filter   | 12000                | Red laser diode | Potentiometer              | 2 x push-pull | Fixed cable               | 36.5     |
| <b>OBR12M-R103-2EP-IO-V31-L</b>      | With polarization filter   | 12000                | Red laser diode | Potentiometer              | 2 x push-pull | M8 connector plug         | 43.9     |
| <b>OBR12M-R103-EP-IO-0,3M-V3-L</b>   | With polarization filter   | 12000                | Red laser diode | Potentiometer              | 1 x push-pull | Fixed cable with M8 plug  | 36.5     |
| <b>OBR12M-R103-EP-IO-V3-L</b>        | With polarization filter   | 12000                | Red laser diode | Potentiometer              | 1 x push-pull | M8 connector plug         | 43.9     |



### Accessories

|                             |   |
|-----------------------------|---|
| <b>IO-Link-Master02-USB</b> | IO-Link master, power supply via USB port   |
| <b>OMH-ML100-031</b>        | Mounting aid for circular profile $\varnothing$ 10 mm ... 14 mm or flat profile 1 mm ... 5 mm |
| <b>OMH-ML100-09</b>         | Mounting aid for circular profile $\varnothing$ 12 mm or flat profile 1.5 mm ... 3 mm         |
| <b>OMH-R10X-04</b>          | Mounting bracket  |
| <b>OMH-R10X-10</b>          | Mounting bracket  |
| <b>REF-H33</b>              | Reflector with screw fixing   |
| <b>REF-MVR10</b>            | Rectangular reflector with microstructure, 60 mm x 19 mm, mounting holes                      |
| <b>REF-ORR50G-2</b>         | Ambient temperature: 0 °C ... 50 °C (32 °F ... 122 °F)  |
| <b>V3-WM-2M-PUR</b>         | Single-ended female cordset, M8, 3-pin, PUR cable   |
| <b>V31-GM-2M-PUR</b>        | Single-ended female cordset, M8, 4-pin, PUR cable   |



# R103 Series Diffuse Mode Sensors

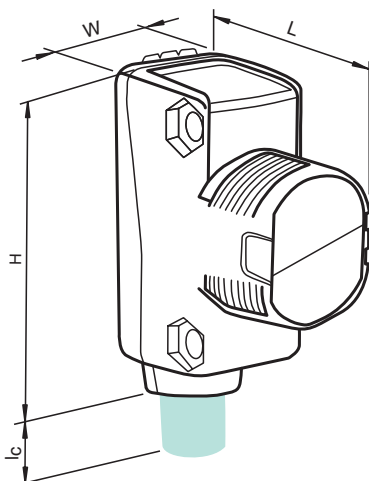


| Standard Technical Data |         |
|-------------------------|---------|
| Interface               | IO-Link |
| Voltage type            | DC      |
| Operating voltage (min) | 10 V    |
| Operating voltage (max) | 30 V    |
| Housing length L        | 26.7 mm |
| Housing width W         | 15 mm   |
| UL                      | ■       |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number                   | Function principle          | Detection range [mm] | Light type      | Operating elements         | Output type   | Connection type           | Height H |
|--------------------------------|-----------------------------|----------------------|-----------------|----------------------------|---------------|---------------------------|----------|
| OBT80-R103-2EP-IO-0,3M-V1-1T-L | With background evaluation  | 80                   | Red laser diode | Potentiometer              | 2 x push-pull | Fixed cable with M12 plug | 36.5     |
| OBT80-R103-2EP-IO-0,3M-V1-L    | With background suppression | 80                   | Red laser diode | Potentiometer              | 2 x push-pull | Fixed cable with M12 plug | 36.5     |
| OBT80-R103-2EP-IO-0,3M-V31-L   | With background suppression | 80                   | Red laser diode | Potentiometer              | 2 x push-pull | Fixed cable with M8 plug  | 36.5     |
| OBT80-R103-2EP-IO-1T-L         | With background evaluation  | 80                   | Red laser diode | Potentiometer              | 2 x push-pull | Fixed cable               | 36.5     |
| OBT80-R103-2EP-IO-1T-L-Y0351   | With background evaluation  | 80                   | Red laser diode | Potentiometer              | 2 x push-pull | Fixed cable with M8 plug  | 36.5     |
| OBT80-R103-2EP-IO-L            | With background suppression | 80                   | Red laser diode | Potentiometer              | 2 x push-pull | Fixed cable               | 36.5     |
| OBT80-R103-2EP-IO-V31-1T-L     | With background evaluation  | 80                   | Red laser diode | Potentiometer              | 2 x push-pull | M8 connector plug         | 43.9     |
| OBT80-R103-2EP-IO-V31-L        | With background suppression | 80                   | Red laser diode | Potentiometer              | 2 x push-pull | M8 connector plug         | 43.9     |
| OBT80-R103-EP-IO-0,3M-V3-1T-L  | With background evaluation  | 80                   | Red laser diode | Potentiometer              | 1 x push-pull | Fixed cable with M8 plug  | 36.5     |
| OBT80-R103-EP-IO-0,3M-V3-L     | With background suppression | 80                   | Red laser diode | Potentiometer              | 1 x push-pull | Fixed cable with M8 plug  | 36.5     |
| OBT80-R103-EP-IO-V3-1T-L       | With background evaluation  | 80                   | Red laser diode | Potentiometer              | 1 x push-pull | M8 connector plug         | 43.9     |
| OBT80-R103-EP-IO-V3-L          | With background suppression | 80                   | Red laser diode | Potentiometer              | 1 x push-pull | M8 connector plug         | 43.9     |
| OQT120-R103-2EP-IO             | With multiple switch points | 120                  | Red LED         | Potentiometer, push-button | 2 x push-pull | Fixed cable               | 36.5     |
| OQT120-R103-2EP-IO-0,3M-V1     | With multiple switch points | 120                  | Red LED         | Potentiometer, push-button | 2 x push-pull | Fixed cable with M12 plug | 36.5     |
| OQT120-R103-2EP-IO-0,3M-V1-L   | With multiple switch points | 120                  | Red laser diode | Potentiometer, push-button | 2 x push-pull | Fixed cable with M12 plug | 36.5     |
| OQT120-R103-2EP-IO-0,3M-V31    | With multiple switch points | 120                  | Red LED         | Potentiometer, push-button | 2 x push-pull | Fixed cable with M8 plug  | 36.5     |
| OQT120-R103-2EP-IO-0,3M-V31-L  | With multiple switch points | 120                  | Red laser diode | Potentiometer, push-button | 2 x push-pull | Fixed cable with M8 plug  | 36.5     |
| OQT120-R103-2EP-IO-L           | With multiple switch points | 120                  | Red laser diode | Potentiometer, push-button | 2 x push-pull | Fixed cable               | 36.5     |
| OQT120-R103-2EP-IO-V31         | With multiple switch points | 120                  | Red LED         | Potentiometer, push-button | 2 x push-pull | M8 connector plug         | 43.9     |
| OQT120-R103-2EP-IO-V31-L       | With multiple switch points | 120                  | Red laser diode | Potentiometer, push-button | 2 x push-pull | M8 connector plug         | 43.9     |
| OQT120-R103-EP-IO-0,3M-V3      | With multiple switch points | 120                  | Red LED         | Potentiometer, push-button | 1 x push-pull | Fixed cable with M8 plug  | 36.5     |
| OQT120-R103-EP-IO-0,3M-V3-L    | With multiple switch points | 120                  | Red laser diode | Potentiometer, push-button | 1 x push-pull | Fixed cable with M8 plug  | 36.5     |
| OQT120-R103-EP-IO-V3           | With multiple switch points | 120                  | Red LED         | Potentiometer, push-button | 1 x push-pull | M8 connector plug         | 43.9     |
| OQT120-R103-EP-IO-V3-L         | With multiple switch points | 120                  | Red laser diode | Potentiometer, push-button | 1 x push-pull | M8 connector plug         | 43.9     |
| OBT250-R103-2EP-IO-0,3M-V1-L   | With background suppression | 250                  | Red laser diode | Potentiometer              | 2 x push-pull | Fixed cable with M12 plug | 36.5     |
| OBT250-R103-2EP-IO-0,3M-V31-L  | With background suppression | 250                  | Red laser diode | Potentiometer              | 2 x push-pull | Fixed cable with M8 plug  | 36.5     |
| OBT250-R103-2EP-IO-1T-L        | With background evaluation  | 250                  | Red laser diode | Potentiometer              | 2 x push-pull | Fixed cable               | 36.5     |
| OBT250-R103-2EP-IO-1T-L-Y0329  | With background evaluation  | 250                  | Red laser diode | Potentiometer              | 2 x push-pull | Fixed cable with M8 plug  | 36.5     |
| OBT250-R103-2EP-IO-1T-L-Y0330  | With background evaluation  | 250                  | Red laser diode | Potentiometer              | 2 x push-pull | Fixed cable with M12 plug | 36.5     |
| OBT250-R103-2EP-IO-L           | With background suppression | 250                  | Red laser diode | Potentiometer              | 2 x push-pull | Fixed cable               | 36.5     |
| OBT250-R103-2EP-IO-V31-1T-L    | With background evaluation  | 250                  | Red laser diode | Potentiometer              | 2 x push-pull | M8 connector plug         | 43.9     |
| OBT250-R103-2EP-IO-V31-L       | With background suppression | 250                  | Red laser diode | Potentiometer              | 2 x push-pull | M8 connector plug         | 43.9     |

| Model number                   | Function principle          | Detection range [mm] | Light type      | Operating elements | Output type   | Connection type           | Height H |
|--------------------------------|-----------------------------|----------------------|-----------------|--------------------|---------------|---------------------------|----------|
| OBT250-R103-EP-IO-0,3M-V3-1T-L | With background evaluation  | 250                  | Red laser diode | Potentiometer      | 1 x push-pull | Fixed cable with M8 plug  | 36.5     |
| OBT250-R103-EP-IO-0,3M-V3-L    | With background suppression | 250                  | Red laser diode | Potentiometer      | 1 x push-pull | Fixed cable with M8 plug  | 36.5     |
| OBT250-R103-EP-IO-V3-1T-L      | With background evaluation  | 250                  | Red laser diode | Potentiometer      | 1 x push-pull | M8 connector plug         | 43.9     |
| OBT250-R103-EP-IO-V3-L         | With background suppression | 250                  | Red laser diode | Potentiometer      | 1 x push-pull | M8 connector plug         | 43.9     |
| OBT300-R103-2EP-IO             | With background suppression | 300                  | Red LED         | Potentiometer      | 2 x push-pull | Fixed cable               | 36.5     |
| OBT300-R103-2EP-IO-0,3M-V1     | With background suppression | 300                  | Red LED         | Potentiometer      | 2 x push-pull | Fixed cable with M12 plug | 36.5     |
| OBT300-R103-2EP-IO-0,3M-V1-1T  | With background evaluation  | 300                  | Red LED         | Potentiometer      | 2 x push-pull | Fixed cable with M12 plug | 36.5     |
| OBT300-R103-2EP-IO-0,3M-V31    | With background suppression | 300                  | Red LED         | Potentiometer      | 2 x push-pull | Fixed cable with M8 plug  | 36.5     |
| OBT300-R103-2EP-IO-0,3M-V31-1T | With background evaluation  | 300                  | Red LED         | Potentiometer      | 2 x push-pull | Fixed cable with M8 plug  | 36.5     |
| OBT300-R103-2EP-IO-1T          | With background evaluation  | 300                  | Red LED         | Potentiometer      | 2 x push-pull | Fixed cable               | 36.5     |
| OBT300-R103-2EP-IO-V31         | With background suppression | 300                  | Red LED         | Potentiometer      | 2 x push-pull | M8 connector plug         | 43.9     |
| OBT300-R103-2EP-IO-V31-1T      | With background evaluation  | 300                  | Red LED         | Potentiometer      | 2 x push-pull | M8 connector plug         | 43.9     |
| OBT300-R103-2EP1-IO-0,3M-V1    | With background suppression | 300                  | Red LED         | Potentiometer      | 2 x push-pull | Fixed cable with M12 plug | 36.5     |
| OBT300-R103-EP-IO-0,3M-V3      | With background suppression | 300                  | Red LED         | Potentiometer      | 1 x push-pull | Fixed cable with M8 plug  | 36.5     |
| OBT300-R103-EP-IO-0,3M-V3-1T   | With background evaluation  | 300                  | Red LED         | Potentiometer      | 1 x push-pull | Fixed cable with M8 plug  | 36.5     |
| OBT300-R103-EP-IO-V3           | With background suppression | 300                  | Red LED         | Potentiometer      | 1 x push-pull | M8 connector plug         | 43.9     |
| OBT300-R103-EP-IO-V3-1T        | With background evaluation  | 300                  | Red LED         | Potentiometer      | 1 x push-pull | M8 connector plug         | 43.9     |
| OBD800-R103-2EP-IO             | Energetic                   | 800                  | Red LED         | Potentiometer      | 2 x push-pull | Fixed cable               | 36.5     |
| OBD800-R103-2EP-IO-0,3M-V1     | Energetic                   | 800                  | Red LED         | Potentiometer      | 2 x push-pull | Fixed cable with M12 plug | 36.5     |
| OBD800-R103-2EP-IO-0,3M-V31    | Energetic                   | 800                  | Red LED         | Potentiometer      | 2 x push-pull | Fixed cable with M8 plug  | 36.5     |
| OBD800-R103-2EP-IO-V31         | Energetic                   | 800                  | Red LED         | Potentiometer      | 2 x push-pull | M8 connector plug         | 43.9     |
| OBD800-R103-EP-IO-0,3M-V3      | Energetic                   | 800                  | Red LED         | Potentiometer      | 1 x push-pull | Fixed cable with M8 plug  | 36.5     |
| OBD800-R103-EP-IO-V3           | Energetic                   | 800                  | Red LED         | Potentiometer      | 1 x push-pull | M8 connector plug         | 43.9     |



### Accessories

|                             |   |
|-----------------------------|---|
| <b>IO-Link-Master02-USB</b> | IO-Link master, power supply via USB port   |
| <b>OMH-ML100-03</b>         | Mounting aid for circular profile $\varnothing$ 12 mm or flat profile 1.5 mm ... 3 mm         |
| <b>OMH-ML100-031</b>        | Mounting aid for circular profile $\varnothing$ 10 mm ... 14 mm or flat profile 1 mm ... 5 mm |
| <b>OMH-ML100-09</b>         | Mounting aid for circular profile $\varnothing$ 12 mm or flat profile 1.5 mm ... 3 mm         |
| <b>OMH-R103-01</b>          | Mounting bracket  |
| <b>OMH-R10X-01</b>          | Mounting bracket  |
| <b>OMH-R10X-04</b>          | Mounting bracket  |
| <b>OMH-R10X-10</b>          | Mounting bracket  |
| <b>REF-H50</b>              | Rectangular reflector, 51 mm x 61 mm, mounting holes, retaining tab                           |
| <b>V1-G-2M-PUR</b>          | Single-ended female cordset, M12, 4-pin, PUR cable  |



# R200 Series Thru-Beam Sensors

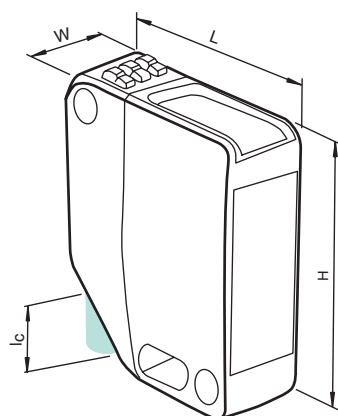


### Standard Technical Data

|                                |                  |
|--------------------------------|------------------|
| <b>Function principle</b>      | Thru-beam sensor |
| <b>Interface</b>               | IO-Link          |
| <b>Operating elements</b>      | Potentiometer    |
| <b>Voltage type</b>            | DC               |
| <b>Operating voltage (min)</b> | 10 V             |
| <b>Operating voltage (max)</b> | 30 V             |
| <b>Housing length L</b>        | 41.7 mm          |
| <b>Housing width W</b>         | 15 mm            |
| <b>Housing height H</b>        | 50.6 mm          |
| <b>UL</b>                      | ■                |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number                   | Detection range [mm] | Light type      | Output type   | Connection type           |
|--------------------------------|----------------------|-----------------|---------------|---------------------------|
| OBE25M-R200-S2EP-IO            | 25000                | Red LED         | 2 x push-pull | Fixed cable               |
| OBE25M-R200-S2EP-IO-0,3M-V1    | 25000                | Red LED         | 2 x push-pull | Fixed cable with M12 plug |
| OBE25M-R200-S2EP-IO-0,3M-V31   | 25000                | Red LED         | 2 x push-pull | Fixed cable with M8 plug  |
| OBE25M-R200-S2EP-IO-V1         | 25000                | Red LED         | 2 x push-pull | M12 connector plug        |
| OBE25M-R200-S2EP-IO-V31        | 25000                | Red LED         | 2 x push-pull | M8 connector plug         |
| OBE25M-R200-SEP-IO-0,3M-V3     | 25000                | Red LED         | 1 x push-pull | Fixed cable with M8 plug  |
| OBE25M-R200-SEP-IO-V3          | 25000                | Red LED         | 1 x push-pull | M8 connector plug         |
| OBE40M-R200-S2EP-IO-0,3M-V1-L  | 40000                | Red laser diode | 2 x push-pull | Fixed cable with M12 plug |
| OBE40M-R200-S2EP-IO-0,3M-V31-L | 40000                | Red laser diode | 2 x push-pull | Fixed cable with M8 plug  |
| OBE40M-R200-S2EP-IO-L          | 40000                | Red laser diode | 2 x push-pull | Fixed cable               |
| OBE40M-R200-S2EP-IO-V1-L       | 40000                | Red laser diode | 2 x push-pull | M12 connector plug        |
| OBE40M-R200-S2EP-IO-V31-L      | 40000                | Red laser diode | 2 x push-pull | M8 connector plug         |
| OBE40M-R200-SEP-IO-0,3M-V3-L   | 40000                | Red laser diode | 1 x push-pull | Fixed cable with M8 plug  |
| OBE40M-R200-SEP-IO-V3-L        | 40000                | Red laser diode | 1 x push-pull | M8 connector plug         |



### Accessories

|                             |  |
|-----------------------------|--|
| <b>IO-Link-Master02-USB</b> | IO-Link master, supply via USB port or separate power supply, LED indicators, M12 plug for sensor connection |
| <b>OMH-MLV12-HWG</b>        | Mounting bracket for MLV12 series sensors  |
| <b>OMH-MLV12-HWK</b>        | Mounting bracket for MLV12 series sensors  |
| <b>OMH-R200-01</b>          | Mounting aid for circular profile $\varnothing$ 12 mm or flat profile 1.5 mm ... 3 mm                        |
| <b>OMH-R20x-Quick-Mount</b> | Quick-mounting aid   |
| <b>V3-GM-2M-PUR</b>         | Single-ended female cordset, M8, 3-pin, PUR cable  |
| <b>V3-WM-2M-PUR</b>         | Single-ended female cordset, M8, 3-pin, PUR cable  |
| <b>V31-GM-2M-PUR</b>        | Single-ended female cordset, M8, 4-pin, PUR cable  |



# R200 Series Retroreflective Sensors

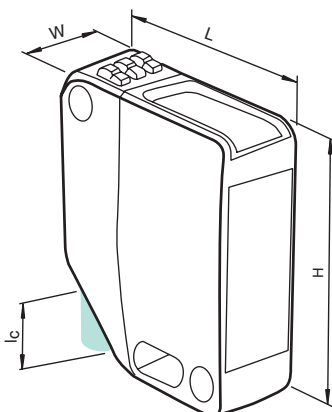


## Standard Technical Data

|                         |         |
|-------------------------|---------|
| Interface               | IO-Link |
| Voltage type            | DC      |
| Operating voltage (min) | 10 V    |
| Operating voltage (max) | 30 V    |
| Housing length L        | 41.7 mm |
| Housing width W         | 15 mm   |
| Housing height H        | 50.6 mm |
| UL                      | ■       |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number                  | Function principle         | Detection range [mm] | Light type      | Operating elements         | Output type   | Connection type           |
|-------------------------------|----------------------------|----------------------|-----------------|----------------------------|---------------|---------------------------|
| OBG8000-R200-EP-IO-V3         | For clear object detection | 5600                 | Red LED         | Potentiometer, push-button | 1 x push-pull | M8 connector plug         |
| OBG8000-R200-2EP-IO           | For clear object detection | 5600                 | Red LED         | Potentiometer, push-button | 2 x push-pull | Fixed cable               |
| OBG8000-R200-2EP-IO-0,3M-V1   | For clear object detection | 5600                 | Red LED         | Potentiometer, push-button | 2 x push-pull | Fixed cable with M12 plug |
| OBG8000-R200-2EP-IO-0,3M-V15  | For clear object detection | 5600                 | Red LED         | Potentiometer, push-button | 2 x push-pull | Fixed cable with M12 plug |
| OBG8000-R200-2EP-IO-0,3M-V31  | For clear object detection | 5600                 | Red LED         | Potentiometer, push-button | 2 x push-pull | Fixed cable with M8 plug  |
| OBG8000-R200-2EP-IO-V1        | For clear object detection | 5600                 | Red LED         | Potentiometer, push-button | 2 x push-pull | M12 connector plug        |
| OBG8000-R200-2EP-IO-V15       | For clear object detection | 5600                 | Red LED         | Potentiometer, push-button | 2 x push-pull | M12 connector plug        |
| OBG8000-R200-2EP-IO-V31       | For clear object detection | 5600                 | Red LED         | Potentiometer, push-button | 2 x push-pull | M8 connector plug         |
| OBG8000-R200-EP-IO-0,3M-V3    | For clear object detection | 5600                 | Red LED         | Potentiometer, push-button | 1 x push-pull | Fixed cable with M8 plug  |
| OBR15M-R200-2EP-IO            | With polarization filter   | 15000                | Red LED         | Potentiometer              | 2 x push-pull | Fixed cable               |
| OBR15M-R200-2EP-IO-0,3M-V1    | With polarization filter   | 15000                | Red LED         | Potentiometer              | 2 x push-pull | Fixed cable with M12 plug |
| OBR15M-R200-2EP-IO-0,3M-V15   | With polarization filter   | 15000                | Red LED         | Potentiometer              | 2 x push-pull | Fixed cable with M12 plug |
| OBR15M-R200-2EP-IO-0,3M-V31   | With polarization filter   | 15000                | Red LED         | Potentiometer              | 2 x push-pull | Fixed cable with M8 plug  |
| OBR15M-R200-2EP-IO-V1         | With polarization filter   | 15000                | Red LED         | Potentiometer              | 2 x push-pull | M12 connector plug        |
| OBR15M-R200-2EP-IO-V15        | With polarization filter   | 15000                | Red LED         | Potentiometer              | 2 x push-pull | M12 connector plug        |
| OBR15M-R200-2EP-IO-V31        | With polarization filter   | 15000                | Red LED         | Potentiometer              | 2 x push-pull | M8 connector plug         |
| OBR15M-R200-EP-IO-0,3M-V3     | With polarization filter   | 15000                | Red LED         | Potentiometer              | 1 x push-pull | Fixed cable with M8 plug  |
| OBR15M-R200-EP-IO-V3          | With polarization filter   | 15000                | Red LED         | Potentiometer              | 1 x push-pull | M8 connector plug         |
| OBR25M-R200-2EP-IO-0,3M-V1-L  | With polarization filter   | 25000                | Red laser diode | Potentiometer              | 2 x push-pull | Fixed cable with M12 plug |
| OBR25M-R200-2EP-IO-0,3M-V15-L | With polarization filter   | 25000                | Red laser diode | Potentiometer              | 2 x push-pull | Fixed cable with M12 plug |
| OBR25M-R200-2EP-IO-0,3M-V31-L | With polarization filter   | 25000                | Red laser diode | Potentiometer              | 2 x push-pull | Fixed cable with M8 plug  |
| OBR25M-R200-2EP-IO-L          | With polarization filter   | 25000                | Red laser diode | Potentiometer              | 2 x push-pull | Fixed cable               |
| OBR25M-R200-2EP-IO-V1-L       | With polarization filter   | 25000                | Red laser diode | Potentiometer              | 2 x push-pull | M12 connector plug        |
| OBR25M-R200-2EP-IO-V15-L      | With polarization filter   | 25000                | Red laser diode | Potentiometer              | 2 x push-pull | M12 connector plug        |
| OBR25M-R200-2EP-IO-V31-L      | With polarization filter   | 25000                | Red laser diode | Potentiometer              | 2 x push-pull | M8 connector plug         |
| OBR25M-R200-A5-IO-V1-L        | With polarization filter   | 25000                | Red laser diode | Potentiometer              | PNP           | M12 connector plug        |
| OBR25M-R200-EP-IO-0,3M-V3-L   | With polarization filter   | 25000                | Red laser diode | Potentiometer              | 1 x push-pull | Fixed cable with M8 plug  |
| OBR25M-R200-EP-IO-V3-L        | With polarization filter   | 25000                | Red laser diode | Potentiometer              | 1 x push-pull | M8 connector plug         |



## Accessories

|                      |  |
|----------------------|--|
| IO-Link-Master02-USB | IO-Link master, power supply via USB port                                |
| OMH-MLV12-HWG        | Mounting bracket for MLV12 series sensors                                |
| OMH-MLV12-HWK        | Mounting bracket for MLV12 series sensors                                |
| OMH-R200-01          | Mounting aid for circular profile $\varnothing$ 12 mm or flat profile    |
| OMH-R20x-Quick-Mount | Quick-mounting aid   |
| REF-C110-2           | Round reflector $\varnothing$ 84 mm, mounting hole in center             |
| REF-H32G-2           | Ambient temperature: -20 °C ... 60 °C (-4 °F ... 140 °F)                 |
| REF-H85-2            | Rectangular reflector, 84.5 mm x 84.5 mm                                 |
| REF-MH20             | Rectangular reflector with microstructure, 32 mm x 20 mm, mounting holes |

# R200 Series Diffuse Mode Sensors

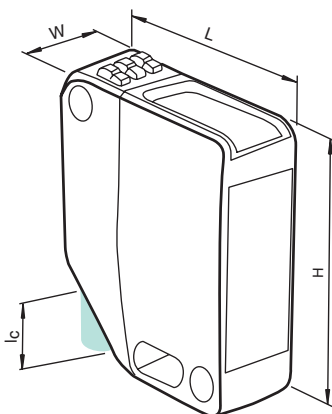


| Standard Technical Data |         |
|-------------------------|---------|
| Interface               | IO-Link |
| Voltage type            | DC      |
| Operating voltage (min) | 10 V    |
| Operating voltage (max) | 30 V    |
| Housing length L        | 41.7 mm |
| Housing width W         | 15 mm   |
| Housing height H        | 50.6 mm |
| UL                      | ■       |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number                   | Function principle          | Detection range [mm] | Light type      | Operating elements         | Output type   | Connection type           |
|--------------------------------|-----------------------------|----------------------|-----------------|----------------------------|---------------|---------------------------|
| OBT300-R200-2EP-IO             | With background suppression | 300                  | Red LED         | Potentiometer              | 2 x push-pull | Fixed cable               |
| OBT300-R200-2EP-IO-0,3M-V1     | With background suppression | 300                  | Red LED         | Potentiometer              | 2 x push-pull | Fixed cable with M12 plug |
| OBT300-R200-2EP-IO-0,3M-V1-1T  | With background evaluation  | 300                  | Red LED         | Potentiometer              | 2 x push-pull | Fixed cable with M12 plug |
| OBT300-R200-2EP-IO-0,3M-V31    | With background suppression | 300                  | Red LED         | Potentiometer              | 2 x push-pull | Fixed cable with M8 plug  |
| OBT300-R200-2EP-IO-0,3M-V31-1T | With background evaluation  | 300                  | Red LED         | Potentiometer              | 2 x push-pull | Fixed cable with M8 plug  |
| OBT300-R200-2EP-IO-1T          | With background evaluation  | 300                  | Red LED         | Potentiometer              | 2 x push-pull | Fixed cable               |
| OBT300-R200-2EP-IO-V1          | With background suppression | 300                  | Red LED         | Potentiometer              | 2 x push-pull | M12 connector plug        |
| OBT300-R200-2EP-IO-V1-1T       | With background evaluation  | 300                  | Red LED         | Potentiometer              | 2 x push-pull | M12 connector plug        |
| OBT300-R200-2EP-IO-V31         | With background suppression | 300                  | Red LED         | Potentiometer              | 2 x push-pull | M8 connector plug         |
| OBT300-R200-2EP-IO-V31-1T      | With background evaluation  | 300                  | Red LED         | Potentiometer              | 2 x push-pull | M8 connector plug         |
| OBT300-R200-EP-IO-0,3M-V3      | With background suppression | 300                  | Red LED         | Potentiometer              | 1 x push-pull | Fixed cable with M8 plug  |
| OBT300-R200-EP-IO-0,3M-V3-1T   | With background evaluation  | 300                  | Red LED         | Potentiometer              | 1 x push-pull | Fixed cable with M8 plug  |
| OBT300-R200-EP-IO-V3           | With background suppression | 300                  | Red LED         | Potentiometer              | 1 x push-pull | M8 connector plug         |
| OBT300-R200-EP-IO-V3-1T        | With background evaluation  | 300                  | Red LED         | Potentiometer              | 1 x push-pull | M8 connector plug         |
| OQT350-R200-2EP-IO-0,3M-V1-L   | With multiple switch points | 350                  | Red laser diode | Potentiometer, push-button | 2 x push-pull | Fixed cable with M12 plug |
| OQT350-R200-2EP-IO-0,3M-V31-L  | With multiple switch points | 350                  | Red laser diode | Potentiometer, push-button | 2 x push-pull | Fixed cable with M8 plug  |
| OQT350-R200-2EP-IO-L           | With multiple switch points | 350                  | Red laser diode | Potentiometer, push-button | 2 x push-pull | Fixed cable               |
| OQT350-R200-2EP-IO-V1-L        | With multiple switch points | 350                  | Red laser diode | Potentiometer, push-button | 2 x push-pull | M12 connector plug        |
| OQT350-R200-2EP-IO-V31-L       | With multiple switch points | 350                  | Red laser diode | Potentiometer, push-button | 2 x push-pull | M8 connector plug         |
| OQT350-R200-EP-IO-0,3M-V3-L    | With multiple switch points | 350                  | Red laser diode | Potentiometer, push-button | 1 x push-pull | Fixed cable with M8 plug  |
| OQT350-R200-EP-IO-V3-L         | With multiple switch points | 350                  | Red laser diode | Potentiometer, push-button | 1 x push-pull | M8 connector plug         |
| OQT400-R200-EP-IO-V3           | With multiple switch points | 400                  | Red LED         | Potentiometer, push-button | 1 x push-pull | M8 connector plug         |
| OQT400-R200-2EP-IO             | With multiple switch points | 400                  | Red LED         | Potentiometer, push-button | 2 x push-pull | Fixed cable               |
| OQT400-R200-2EP-IO-0,3M-V1     | With multiple switch points | 400                  | Red LED         | Potentiometer, push-button | 2 x push-pull | Fixed cable with M12 plug |
| OQT400-R200-2EP-IO-0,3M-V31    | With multiple switch points | 400                  | Red LED         | Potentiometer, push-button | 2 x push-pull | Fixed cable with M8 plug  |
| OQT400-R200-2EP-IO-V1          | With multiple switch points | 400                  | Red LED         | Potentiometer, push-button | 2 x push-pull | M12 connector plug        |
| OQT400-R200-2EP-IO-V31         | With multiple switch points | 400                  | Red LED         | Potentiometer, push-button | 2 x push-pull | M8 connector plug         |
| OQT400-R200-EP-IO-0,3M-V3      | With multiple switch points | 400                  | Red LED         | Potentiometer, push-button | 1 x push-pull | Fixed cable with M8 plug  |
| OBT600-R200-2EP-IO-0,3M-V1-L   | With background suppression | 600                  | Red laser diode | Potentiometer              | 2 x push-pull | Fixed cable with M12 plug |
| OBT600-R200-2EP-IO-0,3M-V31-L  | With background suppression | 600                  | Red laser diode | Potentiometer              | 2 x push-pull | Fixed cable with M8 plug  |
| OBT600-R200-2EP-IO-1T-L        | With background evaluation  | 600                  | Red laser diode | Potentiometer              | 2 x push-pull | Fixed cable               |
| OBT600-R200-2EP-IO-1T-L-Y0233  | With background evaluation  | 600                  | Red laser diode | Potentiometer              | 2 x push-pull | Fixed cable with M8 plug  |
| OBT600-R200-2EP-IO-1T-L-Y0236  | With background evaluation  | 600                  | Red laser diode | Potentiometer              | 2 x push-pull | Fixed cable with M12 plug |
| OBT600-R200-2EP-IO-L           | With background suppression | 600                  | Red laser diode | Potentiometer              | 2 x push-pull | Fixed cable               |
| OBT600-R200-2EP-IO-V1-1T-L     | With background evaluation  | 600                  | Red laser diode | Potentiometer              | 2 x push-pull | M12 connector plug        |
| OBT600-R200-2EP-IO-V1-L        | With background suppression | 600                  | Red laser diode | Potentiometer              | 2 x push-pull | M12 connector plug        |
| OBT600-R200-2EP-IO-V31-1T-L    | With background evaluation  | 600                  | Red laser diode | Potentiometer              | 2 x push-pull | M8 connector plug         |
| OBT600-R200-2EP-IO-V31-L       | With background suppression | 600                  | Red laser diode | Potentiometer              | 2 x push-pull | M8 connector plug         |
| OBT600-R200-EP-IO-0,3M-V3-1T-L | With background evaluation  | 600                  | Red laser diode | Potentiometer              | 1 x push-pull | Fixed cable with M8 plug  |
| OBT600-R200-EP-IO-0,3M-V3-L    | With background suppression | 600                  | Red laser diode | Potentiometer              | 1 x push-pull | Fixed cable with M8 plug  |

| Model number                          | Function principle          | Detection range [mm] | Light type      | Operating elements | Output type   | Connection type           |
|---------------------------------------|-----------------------------|----------------------|-----------------|--------------------|---------------|---------------------------|
| <b>OBT600-R200-EP-IO-V3-1T-L</b>      | With background evaluation  | 600                  | Red laser diode | Potentiometer      | 1 x push-pull | M8 connector plug         |
| <b>OBT600-R200-EP-IO-V3-L</b>         | With background suppression | 600                  | Red laser diode | Potentiometer      | 1 x push-pull | M8 connector plug         |
| <b>OBT650-R200-2EP-IO</b>             | With background suppression | 650                  | Red LED         | Potentiometer      | 2 x push-pull | Fixed cable               |
| <b>OBT650-R200-2EP-IO-0,3M-V1</b>     | With background suppression | 650                  | Red LED         | Potentiometer      | 2 x push-pull | Fixed cable with M12 plug |
| <b>OBT650-R200-2EP-IO-0,3M-V1-1T</b>  | With background evaluation  | 650                  | Red LED         | Potentiometer      | 2 x push-pull | Fixed cable with M12 plug |
| <b>OBT650-R200-2EP-IO-0,3M-V31</b>    | With background suppression | 650                  | Red LED         | Potentiometer      | 2 x push-pull | Fixed cable with M8 plug  |
| <b>OBT650-R200-2EP-IO-0,3M-V31-1T</b> | With background evaluation  | 650                  | Red LED         | Potentiometer      | 2 x push-pull | Fixed cable with M8 plug  |
| <b>OBT650-R200-2EP-IO-1T</b>          | With background evaluation  | 650                  | Red LED         | Potentiometer      | 2 x push-pull | Fixed cable               |
| <b>OBT650-R200-2EP-IO-V1</b>          | With background suppression | 650                  | Red LED         | Potentiometer      | 2 x push-pull | M12 connector plug        |
| <b>OBT650-R200-2EP-IO-V1-1T</b>       | With background evaluation  | 650                  | Red LED         | Potentiometer      | 2 x push-pull | M12 connector plug        |
| <b>OBT650-R200-2EP-IO-V31</b>         | With background suppression | 650                  | Red LED         | Potentiometer      | 2 x push-pull | M8 connector plug         |
| <b>OBT650-R200-2EP-IO-V31-1T</b>      | With background evaluation  | 650                  | Red LED         | Potentiometer      | 2 x push-pull | M8 connector plug         |
| <b>OBT650-R200-EP-IO-0,3M-V3</b>      | With background suppression | 650                  | Red LED         | Potentiometer      | 1 x push-pull | Fixed cable with M8 plug  |
| <b>OBT650-R200-EP-IO-0,3M-V3-1T</b>   | With background evaluation  | 650                  | Red LED         | Potentiometer      | 1 x push-pull | Fixed cable with M8 plug  |
| <b>OBT650-R200-EP-IO-V3</b>           | With background suppression | 650                  | Red LED         | Potentiometer      | 1 x push-pull | M8 connector plug         |
| <b>OBT650-R200-EP-IO-V3-1T</b>        | With background evaluation  | 650                  | Red LED         | Potentiometer      | 1 x push-pull | M8 connector plug         |
| <b>OBD1400-R200-2EP-IO</b>            | Energetic                   | 1400                 | Red LED         | Potentiometer      | 2 x push-pull | Fixed cable               |
| <b>OBD1400-R200-2EP-IO-0,3M-V1</b>    | Energetic                   | 1400                 | Red LED         | Potentiometer      | 2 x push-pull | Fixed cable with M12 plug |
| <b>OBD1400-R200-2EP-IO-0,3M-V31</b>   | Energetic                   | 1400                 | Red LED         | Potentiometer      | 2 x push-pull | Fixed cable with M8 plug  |
| <b>OBD1400-R200-2EP-IO-V1</b>         | Energetic                   | 1400                 | Red LED         | Potentiometer      | 2 x push-pull | M12 connector plug        |
| <b>OBD1400-R200-2EP-IO-V31</b>        | Energetic                   | 1400                 | Red LED         | Potentiometer      | 2 x push-pull | M8 connector plug         |
| <b>OBD1400-R200-EP-IO-0,3M-V3</b>     | Energetic                   | 1400                 | Red LED         | Potentiometer      | 1 x push-pull | Fixed cable with M8 plug  |
| <b>OBD1400-R200-EP-IO-V3</b>          | Energetic                   | 1400                 | Red LED         | Potentiometer      | 1 x push-pull | M8 connector plug         |



#### Accessories

|                             |  |
|-----------------------------|--|
| <b>IO-Link-Master02-USB</b> | IO-Link master, supply via USB port or separate power supply, LED indicators, M12 plug for sensor connection |
| <b>OMH-MLV12-HWG</b>        | Mounting bracket for MLV12 series sensors  |
| <b>OMH-MLV12-HWK</b>        | Mounting bracket for MLV12 series sensors  |
| <b>OMH-R200-01</b>          | Mounting aid for circular profile $\varnothing$ 12 mm or flat profile 1.5 mm ... 3 mm                        |
| <b>OMH-R20x-Quick-Mount</b> | Quick-mounting aid   |
| <b>V1-G-2M-PUR</b>          | Single-ended female cordset, M12, 4-pin, PUR cable   |
| <b>V1-W-2M-PUR</b>          | Single-ended female cordset, M12, 4-pin, PUR cable   |
| <b>V3-GM-2M-PUR</b>         | Single-ended female cordset, M8, 3-pin, PUR cable  |
| <b>V3-WM-2M-PUR</b>         | Single-ended female cordset, M8, 3-pin, PUR cable  |
| <b>V31-GM-2M-PUR</b>        | Single-ended female cordset, M8, 4-pin, PUR cable  |

# R201 Series Thru-Beam Sensors

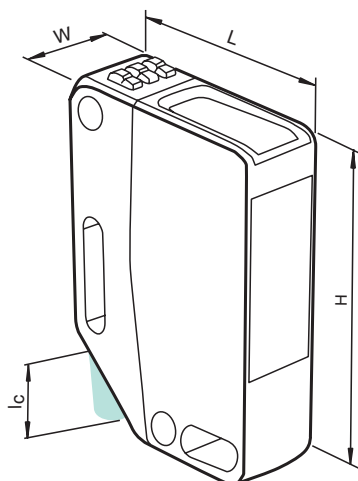


### Standard Technical Data

|                                |                  |
|--------------------------------|------------------|
| <b>Function principle</b>      | Thru-beam sensor |
| <b>Interface</b>               | IO-Link          |
| <b>Operating elements</b>      | Potentiometer    |
| <b>Voltage type</b>            | DC               |
| <b>Operating voltage (min)</b> | 10 V             |
| <b>Operating voltage (max)</b> | 30 V             |
| <b>Housing length L</b>        | 41.7 mm          |
| <b>Housing width W</b>         | 15 mm            |
| <b>Housing height H</b>        | 61.7 mm          |
| <b>UL</b>                      | ■                |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number                   | Detection range [mm] | Light type      | Output type   | Connection type           |
|--------------------------------|----------------------|-----------------|---------------|---------------------------|
| OBE25M-R201-S2EP-IO            | 25000                | Red LED         | 2 x push-pull | Fixed cable               |
| OBE25M-R201-S2EP-IO-0,3M-V1    | 25000                | Red LED         | 2 x push-pull | Fixed cable with M12 plug |
| OBE25M-R201-S2EP-IO-0,3M-V31   | 25000                | Red LED         | 2 x push-pull | Fixed cable with M8 plug  |
| OBE25M-R201-S2EP-IO-V1         | 25000                | Red LED         | 2 x push-pull | M12 connector plug        |
| OBE25M-R201-S2EP-IO-V31        | 25000                | Red LED         | 2 x push-pull | M8 connector plug         |
| OBE25M-R201-SEP-IO-0,3M-V3     | 25000                | Red LED         | 1 x push-pull | Fixed cable with M8 plug  |
| OBE25M-R201-SEP-IO-V3          | 25000                | Red LED         | 1 x push-pull | M8 connector plug         |
| OBE40M-R201-S2EP-IO-0,3M-V1-L  | 40000                | Red laser diode | 2 x push-pull | Fixed cable with M12 plug |
| OBE40M-R201-S2EP-IO-0,3M-V31-L | 40000                | Red laser diode | 2 x push-pull | Fixed cable with M8 plug  |
| OBE40M-R201-S2EP-IO-L          | 40000                | Red laser diode | 2 x push-pull | Fixed cable               |
| OBE40M-R201-S2EP-IO-V1-L       | 40000                | Red laser diode | 2 x push-pull | M12 connector plug        |
| OBE40M-R201-S2EP-IO-V31-L      | 40000                | Red laser diode | 2 x push-pull | M8 connector plug         |
| OBE40M-R201-SEP-IO-0,3M-V3-L   | 40000                | Red laser diode | 1 x push-pull | Fixed cable with M8 plug  |
| OBE40M-R201-SEP-IO-V3-L        | 40000                | Red laser diode | 1 x push-pull | M8 connector plug         |



### Accessories

|                             |   |
|-----------------------------|---|
| <b>OMH-R20x-Quick-Mount</b> | Quick-mounting aid  |
| <b>OMH-RL31-02</b>          | Narrow mounting bracket   |
| <b>OMH-RL31-03</b>          | Narrow mounting bracket   |
| <b>OMH-RL31-04</b>          | Mounting aid for circular profile $\varnothing$ 12 mm or flat profile 1.5 mm ... 3 mm |
| <b>OMH-RL31-07</b>          | Mounting bracket complete with adjustment component                                   |
| <b>OMH-RL31-08</b>          | Mounting aid for circular profile $\varnothing$ 12 mm or flat profile 1.5 mm ... 3 mm |
| <b>V1-G-2M-PUR</b>          | Single-ended female cordset, M12, 4-pin, PUR cable                                    |
| <b>V31-WM-2M-PUR</b>        | Single-ended female cordset, M8, 4-pin, PUR cable                                     |

# R201 Series

## Retroreflective Sensors

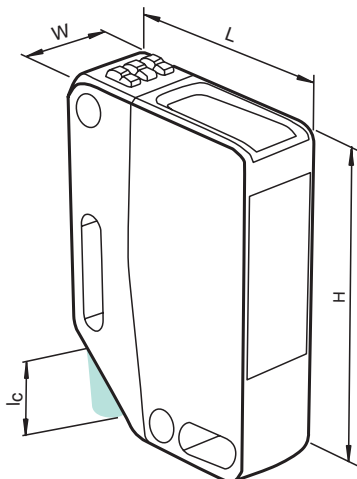


### Standard Technical Data

|                         |         |
|-------------------------|---------|
| Interface               | IO-Link |
| Voltage type            | DC      |
| Operating voltage (min) | 10 V    |
| Operating voltage (max) | 30 V    |
| Housing length L        | 41.7 mm |
| Housing width W         | 15 mm   |
| Housing height H        | 61.7 mm |
| UL                      | ■       |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number                  | Function principle         | Detection range [mm] | Light type      | Operating elements         | Output type   | Connection type           |
|-------------------------------|----------------------------|----------------------|-----------------|----------------------------|---------------|---------------------------|
| OBG8000-R201-2EP-IO           | For clear object detection | 5600                 | Red LED         | Potentiometer, push-button | 2 x push-pull | Fixed cable               |
| OBG8000-R201-2EP-IO-0,3M-V1   | For clear object detection | 5600                 | Red LED         | Potentiometer, push-button | 2 x push-pull | Fixed cable with M12 plug |
| OBG8000-R201-2EP-IO-0,3M-V15  | For clear object detection | 5600                 | Red LED         | Potentiometer, push-button | 2 x push-pull | Fixed cable with M12 plug |
| OBG8000-R201-2EP-IO-0,3M-V31  | For clear object detection | 5600                 | Red LED         | Potentiometer, push-button | 2 x push-pull | Fixed cable with M8 plug  |
| OBG8000-R201-2EP-IO-V1        | For clear object detection | 5600                 | Red LED         | Potentiometer, push-button | 2 x push-pull | M12 connector plug        |
| OBG8000-R201-2EP-IO-V15       | For clear object detection | 5600                 | Red LED         | Potentiometer, push-button | 2 x push-pull | M12 connector plug        |
| OBG8000-R201-2EP-IO-V31       | For clear object detection | 5600                 | Red LED         | Potentiometer, push-button | 2 x push-pull | M8 connector plug         |
| OBG8000-R201-EP-IO-0,3M-V3    | For clear object detection | 5600                 | Red LED         | Potentiometer, push-button | 1 x push-pull | Fixed cable with M8 plug  |
| OBG8000-R201-EP-IO-V3         | For clear object detection | 5600                 | Red LED         | Potentiometer, push-button | 1 x push-pull | M8 connector plug         |
| OBR15M-R201-2EP-IO            | With polarization filter   | 15000                | Red LED         | Potentiometer              | 2 x push-pull | Fixed cable               |
| OBR15M-R201-2EP-IO-0,3M-V1    | With polarization filter   | 15000                | Red LED         | Potentiometer              | 2 x push-pull | Fixed cable with M12 plug |
| OBR15M-R201-2EP-IO-0,3M-V15   | With polarization filter   | 15000                | Red LED         | Potentiometer              | 2 x push-pull | Fixed cable with M12 plug |
| OBR15M-R201-2EP-IO-0,3M-V31   | With polarization filter   | 15000                | Red LED         | Potentiometer              | 2 x push-pull | Fixed cable with M8 plug  |
| OBR15M-R201-2EP-IO-V1         | With polarization filter   | 15000                | Red LED         | Potentiometer              | 2 x push-pull | M12 connector plug        |
| OBR15M-R201-2EP-IO-V15        | With polarization filter   | 15000                | Red LED         | Potentiometer              | 2 x push-pull | M12 connector plug        |
| OBR15M-R201-2EP-IO-V31        | With polarization filter   | 15000                | Red LED         | Potentiometer              | 2 x push-pull | M8 connector plug         |
| OBR15M-R201-EP-IO-0,3M-V3     | With polarization filter   | 15000                | Red LED         | Potentiometer              | 1 x push-pull | Fixed cable with M8 plug  |
| OBR15M-R201-EP-IO-V3          | With polarization filter   | 15000                | Red LED         | Potentiometer              | 1 x push-pull | M8 connector plug         |
| OBR25M-R201-2EP-IO-0,3M-V1-L  | With polarization filter   | 25000                | Red laser diode | Potentiometer              | 2 x push-pull | Fixed cable with M12 plug |
| OBR25M-R201-2EP-IO-0,3M-V15-L | With polarization filter   | 25000                | Red laser diode | Potentiometer              | 2 x push-pull | Fixed cable with M12 plug |
| OBR25M-R201-2EP-IO-0,3M-V31-L | With polarization filter   | 25000                | Red laser diode | Potentiometer              | 2 x push-pull | Fixed cable with M8 plug  |
| OBR25M-R201-2EP-IO-L          | With polarization filter   | 25000                | Red laser diode | Potentiometer              | 2 x push-pull | Fixed cable               |
| OBR25M-R201-2EP-IO-V1-L       | With polarization filter   | 25000                | Red laser diode | Potentiometer              | 2 x push-pull | M12 connector plug        |
| OBR25M-R201-2EP-IO-V15-L      | With polarization filter   | 25000                | Red laser diode | Potentiometer              | 2 x push-pull | M12 connector plug        |
| OBR25M-R201-2EP-IO-V31-L      | With polarization filter   | 25000                | Red laser diode | Potentiometer              | 2 x push-pull | M8 connector plug         |
| OBR25M-R201-EP-IO-0,3M-V3-L   | With polarization filter   | 25000                | Red laser diode | Potentiometer              | 1 x push-pull | Fixed cable with M8 plug  |
| OBR25M-R201-EP-IO-V3-L        | With polarization filter   | 25000                | Red laser diode | Potentiometer              | 1 x push-pull | M8 connector plug         |



### Accessories

|                      |   |
|----------------------|---|
| FE-RR1               | Round reflector $\varnothing$ 80.87 mm, mounting hole                                 |
| IO-Link-Master02-USB | IO-Link master, power supply via USB port   |
| OFR-100/100          | Optical reflective film, 100 mm x 100 mm  |
| OMH-R20x-Quick-Mount | Quick-mounting aid  |
| OMH-RL31-03          | Narrow mounting bracket   |
| OMH-RL31-04          | Mounting aid for circular profile $\varnothing$ 12 mm or flat profile 1.5 mm ... 3 mm |
| OMH-RL31-07          | Mounting bracket complete with adjustment component                                   |
| OMH-RL31-08          | Mounting aid for circular profile $\varnothing$ 12 mm or flat profile 1.5 mm ... 3 mm |
| REF-C110-2           | Round reflector $\varnothing$ 84 mm, mounting hole in center                          |
| REF-H32G-2           | Reflector   |



# R201 Series Diffuse Mode Sensors



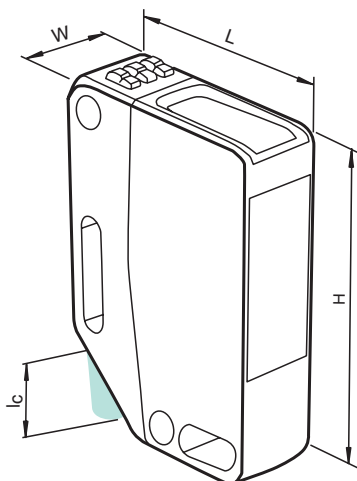
| Standard Technical Data |         |
|-------------------------|---------|
| Interface               | IO-Link |
| Voltage type            | DC      |
| Operating voltage (min) | 10 V    |
| Operating voltage (max) | 30 V    |
| Housing length L        | 41.7 mm |
| Housing width W         | 15 mm   |
| Housing height H        | 61.7 mm |
| UL                      | ■       |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number                   | Function principle          | Detection range [mm] | Light type      | Operating elements         | Output type   | Connection type           |
|--------------------------------|-----------------------------|----------------------|-----------------|----------------------------|---------------|---------------------------|
| OBT300-R201-2EP-IO             | With background suppression | 300                  | Red LED         | Potentiometer              | 2 x push-pull | Fixed cable               |
| OBT300-R201-2EP-IO-0,3M-V1     | With background suppression | 300                  | Red LED         | Potentiometer              | 2 x push-pull | Fixed cable with M12 plug |
| OBT300-R201-2EP-IO-0,3M-V1-1T  | With background evaluation  | 300                  | Red LED         | Potentiometer              | 2 x push-pull | Fixed cable with M12 plug |
| OBT300-R201-2EP-IO-0,3M-V31    | With background suppression | 300                  | Red LED         | Potentiometer              | 2 x push-pull | Fixed cable with M8 plug  |
| OBT300-R201-2EP-IO-0,3M-V31-1T | With background evaluation  | 300                  | Red LED         | Potentiometer              | 2 x push-pull | Fixed cable with M8 plug  |
| OBT300-R201-2EP-IO-1T          | With background evaluation  | 300                  | Red LED         | Potentiometer              | 2 x push-pull | Fixed cable               |
| OBT300-R201-2EP-IO-V1          | With background suppression | 300                  | Red LED         | Potentiometer              | 2 x push-pull | M12 connector plug        |
| OBT300-R201-2EP-IO-V1-1T       | With background evaluation  | 300                  | Red LED         | Potentiometer              | 2 x push-pull | M12 connector plug        |
| OBT300-R201-2EP-IO-V31         | With background suppression | 300                  | Red LED         | Potentiometer              | 2 x push-pull | M8 connector plug         |
| OBT300-R201-2EP-IO-V31-1T      | With background evaluation  | 300                  | Red LED         | Potentiometer              | 2 x push-pull | M8 connector plug         |
| OBT300-R201-EP-IO-0,3M-V3      | With background suppression | 300                  | Red LED         | Potentiometer              | 1 x push-pull | Fixed cable with M8 plug  |
| OBT300-R201-EP-IO-0,3M-V3-1T   | With background evaluation  | 300                  | Red LED         | Potentiometer              | 1 x push-pull | Fixed cable with M8 plug  |
| OBT300-R201-EP-IO-V3           | With background suppression | 300                  | Red LED         | Potentiometer              | 1 x push-pull | M8 connector plug         |
| OBT300-R201-EP-IO-V3-1T        | With background evaluation  | 300                  | Red LED         | Potentiometer              | 1 x push-pull | M8 connector plug         |
| OQT350-R201-2EP-IO-0,3M-V1-L   | With multiple switch points | 350                  | Red laser diode | Potentiometer, push-button | 2 x push-pull | Fixed cable with M12 plug |
| OQT350-R201-2EP-IO-0,3M-V31-L  | With multiple switch points | 350                  | Red laser diode | Potentiometer, push-button | 2 x push-pull | Fixed cable with M8 plug  |
| OQT350-R201-2EP-IO-L           | With multiple switch points | 350                  | Red laser diode | Potentiometer, push-button | 2 x push-pull | Fixed cable               |
| OQT350-R201-2EP-IO-V1-L        | With multiple switch points | 350                  | Red laser diode | Potentiometer, push-button | 2 x push-pull | M12 connector plug        |
| OQT350-R201-2EP-IO-V31-L       | With multiple switch points | 350                  | Red laser diode | Potentiometer, push-button | 2 x push-pull | M8 connector plug         |
| OQT350-R201-EP-IO-0,3M-V3-L    | With multiple switch points | 350                  | Red laser diode | Potentiometer, push-button | 1 x push-pull | Fixed cable with M8 plug  |
| OQT350-R201-EP-IO-V3-L         | With multiple switch points | 350                  | Red laser diode | Potentiometer, push-button | 1 x push-pull | M8 connector plug         |
| OQT400-R201-2EP-IO             | With multiple switch points | 400                  | Red LED         | Potentiometer, push-button | 2 x push-pull | Fixed cable               |
| OQT400-R201-2EP-IO-0,3M-V1     | With multiple switch points | 400                  | Red LED         | Potentiometer, push-button | 2 x push-pull | Fixed cable with M12 plug |
| OQT400-R201-2EP-IO-0,3M-V31    | With multiple switch points | 400                  | Red LED         | Potentiometer, push-button | 2 x push-pull | Fixed cable with M8 plug  |
| OQT400-R201-2EP-IO-V1          | With multiple switch points | 400                  | Red LED         | Potentiometer, push-button | 2 x push-pull | M12 connector plug        |
| OQT400-R201-2EP-IO-V31         | With multiple switch points | 400                  | Red LED         | Potentiometer, push-button | 2 x push-pull | M8 connector plug         |
| OQT400-R201-EP-IO-0,3M-V3      | With multiple switch points | 400                  | Red LED         | Potentiometer, push-button | 1 x push-pull | Fixed cable with M8 plug  |
| OQT400-R201-EP-IO-V3           | With multiple switch points | 400                  | Red LED         | Potentiometer, push-button | 1 x push-pull | M8 connector plug         |
| OBT600-R201-2EP-IO-0,3M-V1-L   | With background suppression | 600                  | Red laser diode | Potentiometer              | 2 x push-pull | Fixed cable with M12 plug |
| OBT600-R201-2EP-IO-0,3M-V31-L  | With background suppression | 600                  | Red laser diode | Potentiometer              | 2 x push-pull | Fixed cable with M8 plug  |
| OBT600-R201-2EP-IO-1T-L        | With background evaluation  | 600                  | Red laser diode | Potentiometer              | 2 x push-pull | Fixed cable               |
| OBT600-R201-2EP-IO-1T-L-Y0247  | With background evaluation  | 600                  | Red laser diode | Potentiometer              | 2 x push-pull | Fixed cable with M8 plug  |
| OBT600-R201-2EP-IO-1T-L-Y0250  | With background evaluation  | 600                  | Red laser diode | Potentiometer              | 2 x push-pull | Fixed cable with M12 plug |
| OBT600-R201-2EP-IO-L           | With background suppression | 600                  | Red laser diode | Potentiometer              | 2 x push-pull | Fixed cable               |
| OBT600-R201-2EP-IO-V1-1T-L     | With background evaluation  | 600                  | Red laser diode | Potentiometer              | 2 x push-pull | M12 connector plug        |
| OBT600-R201-2EP-IO-V1-L        | With background suppression | 600                  | Red laser diode | Potentiometer              | 2 x push-pull | M12 connector plug        |
| OBT600-R201-2EP-IO-V31-1T-L    | With background evaluation  | 600                  | Red laser diode | Potentiometer              | 2 x push-pull | M8 connector plug         |
| OBT600-R201-2EP-IO-V31-L       | With background suppression | 600                  | Red laser diode | Potentiometer              | 2 x push-pull | M8 connector plug         |
| OBT600-R201-EP-IO-0,3M-V3-1T-L | With background evaluation  | 600                  | Red laser diode | Potentiometer              | 1 x push-pull | Fixed cable with M8 plug  |



| Model number                          | Function principle          | Detection range [mm] | Light type      | Operating elements | Output type   | Connection type           |
|---------------------------------------|-----------------------------|----------------------|-----------------|--------------------|---------------|---------------------------|
| <b>OBT600-R201-EP-IO-0,3M-V3-L</b>    | With background suppression | 600                  | Red laser diode | Potentiometer      | 1 x push-pull | Fixed cable with M8 plug  |
| <b>OBT600-R201-EP-IO-V3-1T-L</b>      | With background evaluation  | 600                  | Red laser diode | Potentiometer      | 1 x push-pull | M8 connector plug         |
| <b>OBT600-R201-EP-IO-V3-L</b>         | With background suppression | 600                  | Red laser diode | Potentiometer      | 1 x push-pull | M8 connector plug         |
| <b>OBT650-R201-2EP-IO</b>             | With background suppression | 650                  | Red LED         | Potentiometer      | 2 x push-pull | Fixed cable               |
| <b>OBT650-R201-2EP-IO-0,3M-V1</b>     | With background suppression | 650                  | Red LED         | Potentiometer      | 2 x push-pull | Fixed cable with M12 plug |
| <b>OBT650-R201-2EP-IO-0,3M-V1-1T</b>  | With background evaluation  | 650                  | Red LED         | Potentiometer      | 2 x push-pull | Fixed cable with M12 plug |
| <b>OBT650-R201-2EP-IO-0,3M-V31</b>    | With background suppression | 650                  | Red LED         | Potentiometer      | 2 x push-pull | Fixed cable with M8 plug  |
| <b>OBT650-R201-2EP-IO-0,3M-V31-1T</b> | With background evaluation  | 650                  | Red LED         | Potentiometer      | 2 x push-pull | Fixed cable with M8 plug  |
| <b>OBT650-R201-2EP-IO-1T</b>          | With background evaluation  | 650                  | Red LED         | Potentiometer      | 2 x push-pull | Fixed cable               |
| <b>OBT650-R201-2EP-IO-V1</b>          | With background suppression | 650                  | Red LED         | Potentiometer      | 2 x push-pull | M12 connector plug        |
| <b>OBT650-R201-2EP-IO-V1-1T</b>       | With background evaluation  | 650                  | Red LED         | Potentiometer      | 2 x push-pull | M12 connector plug        |
| <b>OBT650-R201-2EP-IO-V31</b>         | With background suppression | 650                  | Red LED         | Potentiometer      | 2 x push-pull | M8 connector plug         |
| <b>OBT650-R201-2EP-IO-V31-1T</b>      | With background evaluation  | 650                  | Red LED         | Potentiometer      | 2 x push-pull | M8 connector plug         |
| <b>OBT650-R201-EP-IO-0,3M-V3</b>      | With background suppression | 650                  | Red LED         | Potentiometer      | 1 x push-pull | Fixed cable with M8 plug  |
| <b>OBT650-R201-EP-IO-0,3M-V3-1T</b>   | With background evaluation  | 650                  | Red LED         | Potentiometer      | 1 x push-pull | Fixed cable with M8 plug  |
| <b>OBT650-R201-EP-IO-V3</b>           | With background suppression | 650                  | Red LED         | Potentiometer      | 1 x push-pull | M8 connector plug         |
| <b>OBT650-R201-EP-IO-V3-1T</b>        | With background evaluation  | 650                  | Red LED         | Potentiometer      | 1 x push-pull | M8 connector plug         |
| <b>OBD1400-R201-2EP-IO</b>            | Energetic                   | 1400                 | Red LED         | Potentiometer      | 2 x push-pull | Fixed cable               |
| <b>OBD1400-R201-2EP-IO-0,3M-V1</b>    | Energetic                   | 1400                 | Red LED         | Potentiometer      | 2 x push-pull | Fixed cable with M12 plug |
| <b>OBD1400-R201-2EP-IO-0,3M-V31</b>   | Energetic                   | 1400                 | Red LED         | Potentiometer      | 2 x push-pull | Fixed cable with M8 plug  |
| <b>OBD1400-R201-2EP-IO-V1</b>         | Energetic                   | 1400                 | Red LED         | Potentiometer      | 2 x push-pull | M12 connector plug        |
| <b>OBD1400-R201-2EP-IO-V31</b>        | Energetic                   | 1400                 | Red LED         | Potentiometer      | 2 x push-pull | M8 connector plug         |
| <b>OBD1400-R201-EP-IO-0,3M-V3</b>     | Energetic                   | 1400                 | Red LED         | Potentiometer      | 1 x push-pull | Fixed cable with M8 plug  |
| <b>OBD1400-R201-EP-IO-V3</b>          | Energetic                   | 1400                 | Red LED         | Potentiometer      | 1 x push-pull | M8 connector plug         |



#### Accessories

|                             |   |
|-----------------------------|---|
| <b>IO-Link-Master02-USB</b> | IO-Link master, power supply via USB port   |
| <b>OMH-R20x-Quick-Mount</b> | Quick-mounting aid  |
| <b>OMH-RL31-02</b>          | Narrow mounting bracket   |
| <b>OMH-RL31-03</b>          | Narrow mounting bracket   |
| <b>OMH-RL31-04</b>          | Mounting aid for circular profile $\varnothing$ 12 mm or flat profile 1.5 mm ... 3 mm |
| <b>OMH-RL31-07</b>          | Mounting bracket complete with adjustment component                                   |
| <b>OMH-RL31-08</b>          | Mounting aid for circular profile $\varnothing$ 12 mm or flat profile 1.5 mm ... 3 mm |
| <b>V1-W-2M-PUR</b>          | Single-ended female cordset, M12, 4-pin, PUR cable                                    |
| <b>V3-WM-2M-PUR</b>         | Single-ended female cordset, M8, 3-pin, PUR cable                                     |
| <b>V31-GM-2M-PUR</b>        | Single-ended female cordset, M8, 4-pin, PUR cable                                     |



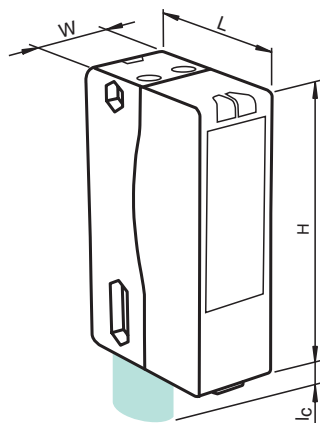
# RL28 Series Thru-Beam Sensors



| Standard Technical Data |                  |
|-------------------------|------------------|
| Function principle      | Thru-beam sensor |
| Operating elements      | Potentiometer    |
| Housing width W         | 25.8 mm          |
| Housing height H        | 88 mm            |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number                 | Detection range [mm] | Light type            | Output type   | Voltage type | UB (min) | UB (max) | Connection type      | Length L | CCC | EAC | UL | VdS |
|------------------------------|----------------------|-----------------------|---------------|--------------|----------|----------|----------------------|----------|-----|-----|----|-----|
| LA28/LK28-FC-Z/31/116        | 10000                | Infrared LED, red LED | Relay         | AC/DC        | 12       | 240      | Terminal compartment | 65.5     | ■   | ■   |    | ■   |
| LD28/LV28-F1-3974/47/82b/112 | 30000                | Red LED               | PNP           | DC           | 10       | 30       | M12 connector plug   | 65.5     |     | ■   | ■  |     |
| LA28/LK28-Z-F1/31/116        | 65000                | Red LED               | Relay         | AC/DC        | 12       | 240      | Terminal compartment | 65.5     | ■   | ■   | ■  |     |
| LA28/LK28-LAS-F1-7675        | 120000               | Red laser diode       | Relay         | AC/DC        | 12       | 240      | Terminal compartment | 65.5     |     |     | ■  |     |
| LD28/LV28-LAS-F1-7675        | 120000               | Red laser diode       | 1 x push-pull | DC           | 10       | 30       | M12 connector plug   | 54.3     |     |     | ■  |     |
| LD28/LV28-LAS-F1-7675/47     | 120000               | Red laser diode       | PNP           | DC           | 10       | 30       | M12 connector plug   | 54.3     |     |     | ■  |     |



| Accessories |  |
|-------------|--|
| OMH-05      | Mounting aid for circular profile $\varnothing$ 12 mm or flat profiles 1.5 mm ... 3 mm |
| OMH-21      | Mounting bracket   |
| OMH-22      | Mounting bracket   |
| OMH-RL28-C  | Protective cover for protection against welding beads                                  |
| OMH-RLK29   | Mounting bracket   |







# RL28 Series Retroreflective Sensors



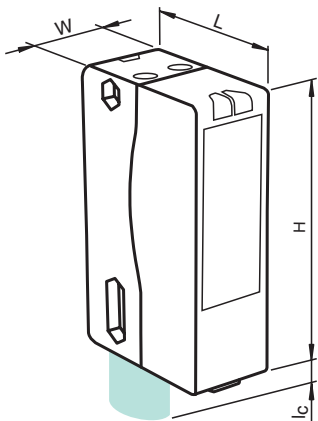
### Standard Technical Data

|                           |               |
|---------------------------|---------------|
| <b>Operating elements</b> | Potentiometer |
| <b>Housing width W</b>    | 25.8 mm       |
| <b>Housing height H</b>   | 88 mm         |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number               | Function principle          | Detection range [mm] | Light type | Output type   | Voltage type | UB (min) | UB (max) | Connection type      | Length L | CCC | EAC | UL | VdS |
|----------------------------|-----------------------------|----------------------|------------|---------------|--------------|----------|----------|----------------------|----------|-----|-----|----|-----|
| RL28-54-G-Z/47/112         | For clear object detection  | 5600                 | Red LED    | PNP           | DC           | 10       | 30       | M12 connector plug   | 65.5     |     |     |    | ■   |
| RL28-54-G-Z/47/116         | For clear object detection  | 5600                 | Red LED    | PNP           | DC           | 10       | 30       | Terminal compartment | 65.5     |     |     |    | ■   |
| RL28-54-G-Z/49/116         | For clear object detection  | 5600                 | Red LED    | PNP/NPN       | DC           | 10       | 30       | Terminal compartment | 65.5     |     |     |    | ■   |
| RL28-54-G-Z/76a/110/116    | For clear object detection  | 5600                 | Red LED    | 1 x push-pull | DC           | 10       | 30       | Terminal compartment | 65.5     |     |     |    | ■   |
| RL28-54-G/47/105           | For clear object detection  | 5600                 | Red LED    | PNP           | DC           | 10       | 30       | M12 connector plug   | 54.3     |     |     |    | ■   |
| RL28-54-G/47/115           | For clear object detection  | 5600                 | Red LED    | PNP           | DC           | 10       | 30       | Fixed cable          | 54.3     |     |     |    | ■   |
| RL28-54-G/49/105           | For clear object detection  | 5600                 | Red LED    | PNP/NPN       | DC           | 10       | 30       | M12 connector plug   | 54.3     |     |     |    | ■   |
| RL28-54-G/76a/110/115      | For clear object detection  | 5600                 | Red LED    | 1 x push-pull | DC           | 10       | 30       | Fixed cable          | 54.3     |     |     |    | ■   |
| RLK28-54-G/31/116          | For clear object detection  | 5600                 | Red LED    | Relay         | AC/DC        | 12       | 240      | Terminal compartment | 65.5     | ■   |     |    | ■   |
| RLK28-FC-55-Z/31/116       | Without polarization filter | 3000                 | Red LED    | Relay         | AC/DC        | 12       | 240      | Terminal compartment | 65.5     | ■   | ■   |    | ■   |
| RL28-55-V-Z/47/82b/112     | With polarization filter    | 13000                | Red LED    | PNP           | DC           | 10       | 30       | M12 connector plug   | 65.5     |     |     |    | ■   |
| RL28-55-V-Z/47/82b/116     | With polarization filter    | 13000                | Red LED    | PNP           | DC           | 10       | 30       | Terminal compartment | 65.5     |     |     |    | ■   |
| RL28-55-V-Z/49/76a/82b/116 | With polarization filter    | 13000                | Red LED    | PNP/NPN       | DC           | 10       | 30       | Terminal compartment | 65.5     |     |     |    | ■   |
| RL28-55-V/47/82b/105       | With polarization filter    | 13000                | Red LED    | PNP           | DC           | 10       | 30       | M12 connector plug   | 54.3     |     |     |    | ■   |
| RL28-55-V/49/74            | With polarization filter    | 13000                | Red LED    | PNP/NPN       | DC           | 10       | 30       | M18 connector plug   | 54.3     |     |     |    | ■   |
| RL28-55-V/49/82b/105       | With polarization filter    | 13000                | Red LED    | PNP/NPN       | DC           | 10       | 30       | M12 connector plug   | 54.3     |     |     |    | ■   |
| RL28-55-V/82b/105/110      | With polarization filter    | 13000                | Red LED    | 1 x push-pull | DC           | 10       | 30       | M12 connector plug   | 54.3     |     |     |    | ■   |
| RL28-55-Z/47/76a/82b/116   | With polarization filter    | 17000                | Red LED    | PNP           | DC           | 10       | 30       | Terminal compartment | 65.5     |     |     |    | ■   |
| RL28-55-Z/47/82b/112       | With polarization filter    | 17000                | Red LED    | PNP           | DC           | 10       | 30       | M12 connector plug   | 65.5     |     |     |    | ■   |
| RL28-55-Z/49/76a/82b/116   | With polarization filter    | 17000                | Red LED    | PNP/NPN       | DC           | 10       | 30       | Terminal compartment | 65.5     |     |     |    | ■   |
| RL28-55-Z/49/82b/112       | With polarization filter    | 17000                | Red LED    | PNP/NPN       | DC           | 10       | 30       | M12 connector plug   | 65.5     |     |     |    | ■   |
| RL28-55-Z/76a/82b/110/116  | With polarization filter    | 17000                | Red LED    | 1 x push-pull | DC           | 10       | 30       | Terminal compartment | 65.5     |     |     |    | ■   |
| RL28-55-Z/82b/110/112      | With polarization filter    | 17000                | Red LED    | 1 x push-pull | DC           | 10       | 30       | M12 connector plug   | 65.5     |     |     |    | ■   |
| RL28-55/47/73c             | With polarization filter    | 17000                | Red LED    | PNP           | DC           | 10       | 30       | M12 connector plug   | 54.3     |     |     |    | ■   |
| RL28-55/47/74              | With polarization filter    | 17000                | Red LED    | PNP           | DC           | 10       | 30       | M18 connector plug   | 54.3     |     |     |    | ■   |
| RL28-55/47/76a/105         | With polarization filter    | 17000                | Red LED    | PNP           | DC           | 10       | 30       | M12 connector plug   | 54.3     |     |     |    | ■   |
| RL28-55/47/82b/105         | With polarization filter    | 17000                | Red LED    | PNP           | DC           | 10       | 30       | M12 connector plug   | 54.3     |     |     |    | ■   |
| RL28-55/47/82b/105/106     | With polarization filter    | 17000                | Red LED    | PNP           | DC           | 19.2     | 28.8     | M12 connector plug   | 54.3     |     |     |    | ■   |
| RL28-55/47/82b/115         | With polarization filter    | 17000                | Red LED    | PNP           | DC           | 10       | 30       | Fixed cable          | 54.3     |     |     |    | ■   |
| RL28-55/49/74              | With polarization filter    | 17000                | Red LED    | PNP/NPN       | DC           | 10       | 30       | M18 connector plug   | 54.3     |     |     |    | ■   |
| RL28-55/49/76b/105         | With polarization filter    | 17000                | Red LED    | PNP/NPN       | DC           | 10       | 30       | M12 connector plug   | 54.3     |     |     |    | ■   |
| RL28-55/49/82b/105         | With polarization filter    | 17000                | Red LED    | PNP/NPN       | DC           | 10       | 30       | M12 connector plug   | 54.3     |     |     |    | ■   |
| RL28-55/49/82b/115         | With polarization filter    | 17000                | Red LED    | PNP/NPN       | DC           | 10       | 30       | Fixed cable          | 54.3     |     |     |    | ■   |
| RL28-55/82b/105/110        | With polarization filter    | 17000                | Red LED    | 1 x push-pull | DC           | 10       | 30       | M12 connector plug   | 54.3     |     |     |    | ■   |
| RL28-55/82b/110/115        | With polarization filter    | 17000                | Red LED    | 1 x push-pull | DC           | 10       | 30       | Fixed cable          | 54.3     |     |     |    | ■   |
| RLK28-55-V-Z/31/116        | With polarization filter    | 13000                | Red LED    | Relay         | AC/DC        | 12       | 240      | Terminal compartment | 65.5     | ■   | ■   |    | ■   |
| RLK28-55-Z/31/116          | With polarization filter    | 17000                | Red LED    | Relay         | AC/DC        | 12       | 240      | Terminal compartment | 65.5     | ■   | ■   |    | ■   |
| RLK28-55/31/116            | With polarization filter    | 17000                | Red LED    | Relay         | AC/DC        | 12       | 240      | Terminal compartment | 65.5     | ■   | ■   |    | ■   |

| Model number                       | Function principle       | Detection range [mm] | Light type      | Output type   | Voltage type | UB (min) | UB (max) | Connection type           | Length L | CCC | EAC | UL | VdS |
|------------------------------------|--------------------------|----------------------|-----------------|---------------|--------------|----------|----------|---------------------------|----------|-----|-----|----|-----|
| <b>RL28-55/35/47/115b</b>          | With polarization filter | 20000                | Red LED         | PNP           | DC           | 10       | 30       | Fixed cable with M12 plug | 54.3     |     |     |    | ■   |
| <b>RL28-55-LAS/47/82b/105</b>      | With polarization filter | 30000                | Red laser diode | PNP           | DC           | 10       | 30       | M12 connector plug        | 54.3     |     |     |    | ■   |
| <b>RL28-55-LAS/47/82b/115</b>      | With polarization filter | 30000                | Red laser diode | PNP           | DC           | 10       | 30       | Fixed cable               | 54.3     |     |     |    | ■   |
| <b>RL28-55-LAS/49/82b/105</b>      | With polarization filter | 30000                | Red laser diode | PNP/NPN       | DC           | 10       | 30       | M12 connector plug        | 54.3     |     |     |    | ■   |
| <b>RL28-55-LAS/76a/82b/105/110</b> | With polarization filter | 30000                | Red laser diode | 1 x push-pull | DC           | 10       | 30       | M12 connector plug        | 54.3     |     |     |    | ■   |
| <b>RL28-55-LAS/76a/82b/110/115</b> | With polarization filter | 30000                | Red laser diode | 1 x push-pull | DC           | 10       | 30       | Fixed cable               | 54.3     |     |     |    | ■   |
| <b>RLK28-55-LAS-Z/31/116</b>       | With polarization filter | 30000                | Red laser diode | Relay         | AC/DC        | 12       | 240      | Terminal compartment      | 65.5     | ■   | ■   | ■  |     |



| Accessories         |   |
|---------------------|---|
| <b>OMH-05</b>       | Mounting aid for circular profile $\varnothing$ 12 mm or flat profile 1.5 mm ... 3 mm |
| <b>OMH-21</b>       | Mounting bracket  |
| <b>OMH-22</b>       | Mounting bracket  |
| <b>OMH-RL28-C</b>   | Protective cover for protection against welding beads                                 |
| <b>OMH-RLK29</b>    | Mounting bracket  |
| <b>OMH-RLK29-HW</b> | Mounting bracket for rear wall mounting   |
| <b>REF-MH82</b>     | Rectangular reflector with microstructure, 82 mm x 60 mm, mounting holes              |

# RL28 Series Diffuse Mode Sensors



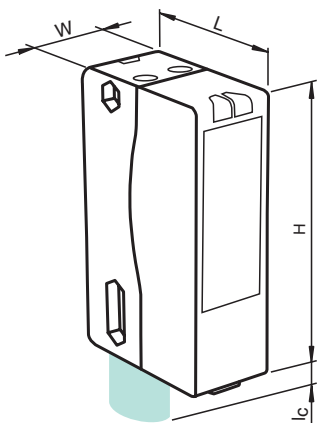
| Standard Technical Data |  |
|-------------------------|--|
| Function principle      | Triangulation sensor with background suppression |
| Operating elements      | Potentiometer                                    |
| Housing width W         | 25.8 mm  |
| Housing height H        | 88 mm  |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number               | Detection range [mm] | Light type   | Output type   | Voltage type | UB (min) | UB (max) | Connection type      | Length L | CCC | EAC | UL |
|----------------------------|----------------------|--------------|---------------|--------------|----------|----------|----------------------|----------|-----|-----|----|
| RL28-8-H-400-FFP-RT/47/105 | 400                  | Red LED      | PNP           | DC           | 10       | 30       | M12 connector plug   | 54.3     |     |     | ■  |
| RL28-8-H-400-IR-Z/110/116  | 400                  | Infrared LED | 1 x push-pull | DC           | 10       | 30       | Terminal compartment | 54.3     |     |     | ■  |
| RL28-8-H-400-IR-Z/47/116   | 400                  | Infrared LED | PNP           | DC           | 10       | 30       | Terminal compartment | 54.3     |     |     | ■  |
| RL28-8-H-400-IR-Z/49/116   | 400                  | Infrared LED | PNP/NPN       | DC           | 10       | 30       | Terminal compartment | 54.3     |     |     | ■  |
| RL28-8-H-400-IR/105/110    | 400                  | Infrared LED | 1 x push-pull | DC           | 10       | 30       | M12 connector plug   | 54.3     |     |     | ■  |
| RL28-8-H-400-IR/47/105     | 400                  | Infrared LED | PNP           | DC           | 10       | 30       | M12 connector plug   | 54.3     |     |     | ■  |
| RL28-8-H-400-IR/49/105     | 400                  | Infrared LED | PNP/NPN       | DC           | 10       | 30       | M12 connector plug   | 54.3     |     |     | ■  |
| RL28-8-H-400-IR/49/115     | 400                  | Infrared LED | PNP/NPN       | DC           | 10       | 30       | Fixed cable          | 54.3     |     |     | ■  |
| RL28-8-H-400-RT-Z/110/116  | 400                  | Red LED      | 1 x push-pull | DC           | 10       | 30       | Terminal compartment | 54.3     |     |     | ■  |
| RL28-8-H-400-RT-Z/49/116   | 400                  | Red LED      | PNP/NPN       | DC           | 10       | 30       | Terminal compartment | 54.3     |     |     | ■  |
| RL28-8-H-400-RT/105/110    | 400                  | Red LED      | 1 x push-pull | DC           | 10       | 30       | M12 connector plug   | 54.3     |     |     | ■  |
| RL28-8-H-400-RT/47/105     | 400                  | Red LED      | PNP           | DC           | 10       | 30       | M12 connector plug   | 54.3     |     |     | ■  |
| RL28-8-H-400-RT/47/115     | 400                  | Red LED      | PNP           | DC           | 10       | 30       | Fixed cable          | 54.3     |     |     | ■  |
| RL28-8-H-400-RT/47/73c     | 400                  | Red LED      | PNP           | DC           | 10       | 30       | M12 connector plug   | 54.3     |     |     | ■  |
| RL28-8-H-400-RT/49/105     | 400                  | Red LED      | PNP/NPN       | DC           | 10       | 30       | M12 connector plug   | 54.3     |     |     | ■  |
| RL28-8-H-400-RT/49/115     | 400                  | Red LED      | PNP/NPN       | DC           | 10       | 30       | Fixed cable          | 54.3     |     |     | ■  |
| RLK28-8-H-400-IR-Z/31/116  | 400                  | Infrared LED | Relay         | AC/DC        | 12       | 240      | Terminal compartment | 65.5     | ■   | ■   | ■  |
| RLK28-8-H-400-RT-Z/31/116  | 400                  | Red LED      | Relay         | AC/DC        | 12       | 240      | Terminal compartment | 65.5     | ■   | ■   | ■  |
| RL28-8-H-700-IR-Z/47/116   | 700                  | Infrared LED | PNP           | DC           | 10       | 30       | Terminal compartment | 65.5     |     |     | ■  |
| RL28-8-H-700-IR-Z/49/116   | 700                  | Infrared LED | PNP/NPN       | DC           | 10       | 30       | Terminal compartment | 65.5     |     |     | ■  |
| RL28-8-H-700-IR/105/110    | 700                  | Infrared LED | 1 x push-pull | DC           | 10       | 30       | M12 connector plug   | 54.3     |     |     | ■  |
| RL28-8-H-700-IR/110/115    | 700                  | Infrared LED | 1 x push-pull | DC           | 10       | 30       | Fixed cable          | 54.3     |     |     | ■  |
| RL28-8-H-700-IR/47/105     | 700                  | Infrared LED | PNP           | DC           | 10       | 30       | M12 connector plug   | 54.3     |     | ■   | ■  |
| RL28-8-H-700-IR/47/105/106 | 700                  | Infrared LED | PNP           | DC           | 19.2     | 28.8     | M12 connector plug   | 54.3     |     |     |    |
| RL28-8-H-700-IR/47/115     | 700                  | Infrared LED | PNP           | DC           | 10       | 30       | Fixed cable          | 54.3     |     |     | ■  |
| RL28-8-H-700-IR/47/74      | 700                  | Infrared LED | PNP           | DC           | 10       | 30       | M18 connector plug   | 54.3     |     |     | ■  |
| RL28-8-H-700-IR/49/105     | 700                  | Infrared LED | PNP/NPN       | DC           | 10       | 30       | M12 connector plug   | 54.3     |     |     | ■  |
| RL28-8-H-700-IR/49/115     | 700                  | Infrared LED | PNP/NPN       | DC           | 10       | 30       | Fixed cable          | 54.3     |     |     | ■  |
| RL28-8-H-700-RT-Z/47/112   | 700                  | Red LED      | PNP           | DC           | 10       | 30       | M12 connector plug   | 65.5     |     |     | ■  |
| RL28-8-H-700-RT-Z/47/116   | 700                  | Red LED      | PNP           | DC           | 10       | 30       | Terminal compartment | 65.5     |     |     | ■  |
| RL28-8-H-700-RT-Z/49/116   | 700                  | Red LED      | PNP/NPN       | DC           | 10       | 30       | Terminal compartment | 65.5     |     |     | ■  |
| RL28-8-H-700-RT/105/110    | 700                  | Red LED      | 1 x push-pull | DC           | 10       | 30       | M12 connector plug   | 54.3     |     |     | ■  |
| RL28-8-H-700-RT/47/105     | 700                  | Red LED      | PNP           | DC           | 10       | 30       | M12 connector plug   | 54.3     |     |     | ■  |
| RL28-8-H-700-RT/47/115     | 700                  | Red LED      | PNP           | DC           | 10       | 30       | Fixed cable          | 54.3     |     |     | ■  |
| RL28-8-H-700-RT/47/73c     | 700                  | Red LED      | PNP           | DC           | 10       | 30       | M12 connector plug   | 54.3     |     |     | ■  |
| RL28-8-H-700-RT/47/74      | 700                  | Red LED      | PNP           | DC           | 10       | 30       | M18 connector plug   | 54.3     |     |     | ■  |
| RL28-8-H-700-RT/49/105     | 700                  | Red LED      | PNP/NPN       | DC           | 10       | 30       | M12 connector plug   | 54.3     |     |     | ■  |
| RL28-8-H-700-RT/49/115     | 700                  | Red LED      | PNP/NPN       | DC           | 10       | 30       | Fixed cable          | 54.3     |     |     | ■  |
| RLK28-8-H-700-IR-Z/31/116  | 700                  | Infrared LED | Relay         | AC/DC        | 12       | 240      | Terminal compartment | 65.5     | ■   | ■   | ■  |
| RLK28-8-H-700-RT-Z/31/116  | 700                  | Red LED      | Relay         | AC/DC        | 12       | 240      | Terminal compartment | 65.5     | ■   | ■   | ■  |



| Model number                | Detection range [mm] | Light type      | Output type   | Voltage type | UB (min) | UB (max) | Connection type           | Length L | CCC | EAC | UL |
|-----------------------------|----------------------|-----------------|---------------|--------------|----------|----------|---------------------------|----------|-----|-----|----|
| RL28-8-H-1500-LAS/105/110   | 1500                 | Red laser diode | 1 x push-pull | DC           | 10       | 30       | M12 connector plug        | 54.3     |     |     | ■  |
| RL28-8-H-1500-LAS/47/105    | 1500                 | Red laser diode | PNP           | DC           | 10       | 30       | M12 connector plug        | 54.3     |     |     | ■  |
| RL28-8-H-1500-LAS/47/115b   | 1500                 | Red laser diode | PNP           | DC           | 10       | 30       | Fixed cable with M12 plug | 54.3     |     |     | ■  |
| RL28-8-H-2000-IR-Z/110/116  | 2000                 | Infrared LED    | 1 x push-pull | DC           | 10       | 30       | Terminal compartment      | 65.5     |     |     | ■  |
| RL28-8-H-2000-IR-Z/47/112   | 2000                 | Infrared LED    | PNP           | DC           | 10       | 30       | M12 connector plug        | 65.5     |     |     | ■  |
| RL28-8-H-2000-IR-Z/47/116   | 2000                 | Infrared LED    | PNP           | DC           | 10       | 30       | Terminal compartment      | 65.5     |     |     | ■  |
| RL28-8-H-2000-IR-Z/49/112   | 2000                 | Infrared LED    | PNP/NPN       | DC           | 10       | 30       | M12 connector plug        | 65.5     |     |     | ■  |
| RL28-8-H-2000-IR-Z/49/116   | 2000                 | Infrared LED    | PNP/NPN       | DC           | 10       | 30       | Terminal compartment      | 65.5     |     |     | ■  |
| RL28-8-H-2000-IR/105/110    | 2000                 | Infrared LED    | 1 x push-pull | DC           | 10       | 30       | M12 connector plug        | 54.3     |     |     | ■  |
| RL28-8-H-2000-IR/110/115    | 2000                 | Infrared LED    | 1 x push-pull | DC           | 10       | 30       | Fixed cable               | 54.3     |     |     | ■  |
| RL28-8-H-2000-IR/47/105     | 2000                 | Infrared LED    | PNP           | DC           | 10       | 30       | M12 connector plug        | 54.3     |     |     | ■  |
| RL28-8-H-2000-IR/47/105/106 | 2000                 | Infrared LED    | PNP           | DC           | 19.2     | 28.8     | M12 connector plug        | 54.3     |     |     |    |
| RL28-8-H-2000-IR/47/115     | 2000                 | Infrared LED    | PNP           | DC           | 10       | 30       | Fixed cable               | 54.3     |     |     | ■  |
| RL28-8-H-2000-IR/47/73c     | 2000                 | Infrared LED    | PNP           | DC           | 10       | 30       | M12 connector plug        | 54.3     |     |     | ■  |
| RL28-8-H-2000-IR/47/74      | 2000                 | Infrared LED    | PNP           | DC           | 10       | 30       | M18 connector plug        | 54.3     |     |     | ■  |
| RL28-8-H-2000-IR/49/105     | 2000                 | Infrared LED    | PNP/NPN       | DC           | 10       | 30       | M12 connector plug        | 54.3     |     |     | ■  |
| RL28-8-H-2000-IR/49/115     | 2000                 | Infrared LED    | PNP/NPN       | DC           | 10       | 30       | Fixed cable               | 54.3     |     |     | ■  |
| RL28-8-H-2000-IR/49/74      | 2000                 | Infrared LED    | PNP/NPN       | DC           | 10       | 30       | M18 connector plug        | 54.3     |     |     | ■  |
| RLK28-8-H-2000-IR-Z/31/116  | 2000                 | Infrared LED    | Relay         | AC/DC        | 12       | 240      | Terminal compartment      | 65.5     | ■   | ■   | ■  |



#### Accessories

|              |   |
|--------------|---|
| OMH-05       | Mounting aid for circular profile $\varnothing$ 12 mm or flat profile 1.5 mm ... 3 mm |
| OMH-21       | Mounting bracket  |
| OMH-22       | Mounting bracket  |
| OMH-RL28-C   | Protective cover for protection against welding beads                                 |
| OMH-RLK29    | Mounting bracket  |
| OMH-RLK29-HW | Mounting bracket for rear wall mounting   |

# RL29 Series

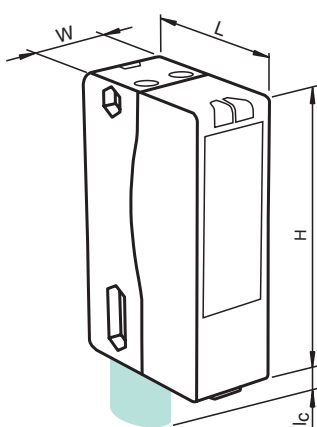


### Standard Technical Data

|                         |         |
|-------------------------|---------|
| <b>Light type</b>       | Red LED |
| <b>Housing width W</b>  | 25.8 mm |
| <b>Housing height H</b> | 88 mm   |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number                | Function principle                               | Detection range [mm] | Operating elements | Output type   | Voltage type | UB (min) | UB (max) | Connection type           | Length L | CCC | EAC | UL |
|-----------------------------|--|----------------------|--------------------|---------------|--------------|----------|----------|---------------------------|----------|-----|-----|----|
| RL29-8-H-1200-RT/115/136    | Triangulation sensor with background suppression | 1200                 | Potentiometer      | 2 x push-pull | DC           | 10       | 30       | Fixed cable               | 54.3     |     |     | ■  |
| RL29-8-H-1200-RT/115b/136   | Triangulation sensor with background suppression | 1200                 | Potentiometer      | 2 x push-pull | DC           | 10       | 30       | Fixed cable with M12 plug | 54.3     |     |     | ■  |
| RL29-8-H-1200-RT/59/73c/136 | Triangulation sensor with background suppression | 1200                 | Potentiometer      | 2 x push-pull | DC           | 10       | 30       | M12 connector plug        | 54.3     |     |     | ■  |
| RL29-8-H-1200-RT/73c/136    | Triangulation sensor with background suppression | 1200                 | Potentiometer      | 2 x push-pull | DC           | 10       | 30       | M12 connector plug        | 54.3     |     |     | ■  |
| RL29-8-2000/115b/136        | Diffuse mode sensor, energetic                   | 2000                 | Potentiometer      | 2 x push-pull | DC           | 10       | 30       | Fixed cable with M12 plug | 54.3     |     |     | ■  |
| RL29-8-2000/59/73c/136      | Diffuse mode sensor, energetic                   | 2000                 | Potentiometer      | 2 x push-pull | DC           | 10       | 30       | M12 connector plug        | 54.3     |     |     | ■  |
| RL29-8-2000/73c/136         | Diffuse mode sensor, energetic                   | 2000                 | Potentiometer      | 2 x push-pull | DC           | 10       | 30       | M12 connector plug        | 54.3     |     |     | ■  |
| RL29-55-V/115b/136          | Retroreflective sensor with polarization filter  | 6000                 |                    | 2 x push-pull | DC           | 10       | 30       | Fixed cable with M12 plug | 54.3     |     |     | ■  |
| RL29-55-V/25/73c/136        | Retroreflective sensor with polarization filter  | 6000                 |                    | 2 x push-pull | DC           | 10       | 30       | M12 connector plug        | 54.3     |     |     | ■  |
| RL29-55-V/73c/136           | Retroreflective sensor with polarization filter  | 6000                 |                    | 2 x push-pull | DC           | 10       | 30       | M12 connector plug        | 54.3     |     |     | ■  |
| RL29-55/115b/136            | Retroreflective sensor with polarization filter  | 7000                 |                    | 2 x push-pull | DC           | 10       | 30       | Fixed cable with M12 plug | 54.3     |     |     | ■  |
| RL29-55/25/73c/136          | Retroreflective sensor with polarization filter  | 7000                 |                    | 2 x push-pull | DC           | 10       | 30       | M12 connector plug        | 54.3     |     |     | ■  |
| RL29-55/73c/136             | Retroreflective sensor with polarization filter  | 7000                 |                    | 2 x push-pull | DC           | 10       | 30       | M12 connector plug        | 54.3     |     |     | ■  |
| RLK29-55/25/116             | Retroreflective sensor with polarization filter  | 12000                |                    | Relay         | AC/DC        | 24       | 230      | Terminal compartment      | 65.5     | ■   | ■   | ■  |
| RLK29-55/25/116-Set         | Retroreflective sensor with polarization filter  | 12000                |                    | Relay         | AC/DC        | 24       | 230      | Terminal compartment      | 65.5     | ■   | ■   | ■  |
| RLK29-55/59/116             | Retroreflective sensor with polarization filter  | 12000                |                    | Relay         | AC/DC        | 24       | 230      | Terminal compartment      | 65.5     | ■   | ■   | ■  |
| RLK29-55/59/116-Set         | Retroreflective sensor with polarization filter  | 12000                |                    | Relay         | AC/DC        | 24       | 230      | Terminal compartment      | 65.5     | ■   | ■   | ■  |
| LA29/LK29-Z-F1/31/116-SET   | Thru-beam sensor                                 | 65000                | Potentiometer      | Relay         | AC/DC        | 12       | 240      | Terminal compartment      | 65.5     | ■   | ■   |    |
| LA29/LK29-Z-F2/31/116-SET   | Thru-beam sensor                                 | 65000                | Potentiometer      | Relay         | AC/DC        | 12       | 240      | Terminal compartment      | 65.5     | ■   | ■   |    |



### Accessories

|                         |   |
|-------------------------|---|
| <b>OFR-100/100</b>      | Optical reflective film, 100 mm x 100 mm  |
| <b>OMH-05</b>           | Mounting aid for circular profile $\varnothing$ 12 mm or flat profile 1.5 mm ... 3 mm |
| <b>OMH-21</b>           | Mounting bracket  |
| <b>OMH-22</b>           | Mounting bracket  |
| <b>OMH-RL28-C</b>       | Protective cover for protection against welding beads                                 |
| <b>OMH-RLK29</b>        | Mounting bracket  |
| <b>OMH-RLK29-HW</b>     | Mounting bracket for rear wall mounting   |
| <b>OMH-RLK29-HW-120</b> | Mounting bracket for rear wall mounting   |
| <b>REF-C110-2</b>       | Round reflector $\varnothing$ 84 mm, mounting hole in center                          |
| <b>V1-G-2M-PUR</b>      | Single-ended female cordset, M12, 4-pin, PUR cable                                    |

# RL31 Series Thru-Beam Sensors

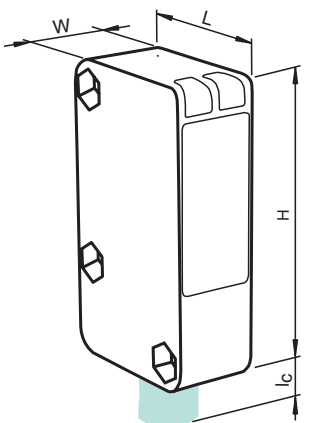


### Standard Technical Data

|                           |                  |
|---------------------------|------------------|
| <b>Function principle</b> | Thru-beam sensor |
| <b>Detection range</b>    | 43000 mm         |
| <b>Light type</b>         | Red LED          |
| <b>Housing length L</b>   | 35 mm            |
| <b>Housing width W</b>    | 18 mm            |
| <b>Housing height H</b>   | 62 mm            |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number             | Operating elements | Output type   | Voltage type | UB (min) | UB (max) | Connection type    | CCC | EAC | UL |
|--------------------------|--------------------|---------------|--------------|----------|----------|--------------------|-----|-----|----|
| LA31/LK31/16/25/31/115   | Potentiometer      | Relay         | AC/DC        | 24       | 240      | Fixed cable        | ■   | ■   |    |
| LA31/LK31/25/31/115      |                    | Relay         | AC/DC        | 24       | 240      | Fixed cable        | ■   | ■   |    |
| LA31/LK31/25/31/115 SET  |                    | Relay         | AC/DC        | 24       | 240      | Fixed cable        | ■   | ■   |    |
| LA31/LK31/25/31/115 SET2 |                    | Relay         | AC/DC        | 24       | 240      | Fixed cable        | ■   | ■   |    |
| LA31/LK31/31/115         |                    | Relay         | AC/DC        | 24       | 240      | Fixed cable        | ■   | ■   |    |
| LD31/LV31/25/73c/76a/136 |                    | 2 x push-pull | DC           | 10       | 30       | M12 connector plug |     | ■   | ■  |
| LD31/LV31/73c/76a/136    |                    | 2 x push-pull | DC           | 10       | 30       | M12 connector plug |     | ■   | ■  |
| LD31/LV31/76a/115/136    |                    | 2 x push-pull | DC           | 10       | 30       | Fixed cable        |     |     | ■  |



### Accessories

|                    |   |
|--------------------|---|
| <b>OMH-RL31-02</b> | Narrow mounting bracket   |
| <b>OMH-RL31-03</b> | Narrow mounting bracket   |
| <b>OMH-RL31-04</b> | Mounting aid for circular profile $\varnothing$ 12 mm or flat profile 1.5 mm ... 3 mm |
| <b>OMH-RL31-05</b> | Mounting bracket for mounting on flat surfaces with two M4 screws                     |

# RL31 Series Retroreflective Sensors

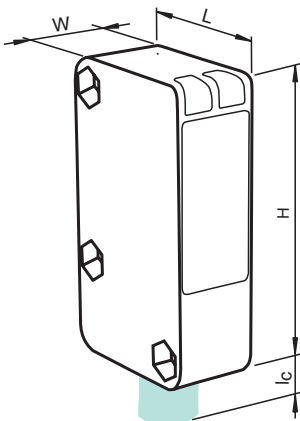


### Standard Technical Data

|                         |         |
|-------------------------|---------|
| <b>Light type</b>       | Red LED |
| <b>Housing length L</b> | 35 mm   |
| <b>Housing width W</b>  | 18 mm   |
| <b>Housing height H</b> | 62 mm   |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number                  | Function principle          | Detection range [mm] | Output type   | Voltage type | UB (min) | UB (max) | Connection type           | CCC | EAC | UL |
|-------------------------------|-----------------------------|----------------------|---------------|--------------|----------|----------|---------------------------|-----|-----|----|
| RL31-54/115/136               | With polarization filter    | 9000                 | 2 x push-pull | DC           | 10       | 30       | Fixed cable               |     |     | ■  |
| RL31-54/115/136-5M            | With polarization filter    | 9000                 | 2 x push-pull | DC           | 10       | 30       | Fixed cable               |     |     | ■  |
| RL31-54/115b/136              | With polarization filter    | 9000                 | 2 x push-pull | DC           | 10       | 30       | Fixed cable with M12 plug |     |     | ■  |
| RL31-54/25/73c/136            | With polarization filter    | 9000                 | 2 x push-pull | DC           | 10       | 30       | M12 connector plug        |     | ■   | ■  |
| RL31-54/73c/136               | With polarization filter    | 9000                 | 2 x push-pull | DC           | 10       | 30       | M12 connector plug        |     | ■   | ■  |
| RLK31-54/25/31/115            | With polarization filter    | 9000                 | Relay         | AC/DC        | 24       | 240      | Fixed cable               | ■   | ■   |    |
| RLK31-54/25/31/115 SET        | With polarization filter    | 9000                 | Relay         | AC/DC        | 24       | 240      | Fixed cable               | ■   | ■   |    |
| RLK31-54/25/31/115 SET2       | With polarization filter    | 9000                 | Relay         | AC/DC        | 24       | 240      | Fixed cable               | ■   | ■   |    |
| RLK31-54/25/31/33/115-15M     | With polarization filter    | 9000                 | Relay         | AC/DC        | 24       | 240      | Fixed cable               | ■   | ■   |    |
| RLK31-54/25/31/33/115-15M SET | With polarization filter    | 9000                 | Relay         | AC/DC        | 24       | 240      | Fixed cable               | ■   | ■   |    |
| RLK31-54/25/31/33/115-5M      | With polarization filter    | 9000                 | Relay         | AC/DC        | 24       | 240      | Fixed cable               | ■   | ■   |    |
| RLK31-54/31/115               | With polarization filter    | 9000                 | Relay         | AC/DC        | 24       | 240      | Fixed cable               | ■   | ■   |    |
| RLK31-54/31/33/115            | With polarization filter    | 9000                 | Relay         | AC/DC        | 24       | 240      | Fixed cable               | ■   | ■   |    |
| RLK31-6/25/31/115             | Without polarization filter | 16,500               | Relay         | AC/DC        | 24       | 240      | Fixed cable               |     | ■   | ■  |
| RLK31-6/31/115                | Without polarization filter | 16,500               | Relay         | AC/DC        | 24       | 240      | Fixed cable               |     | ■   | ■  |



### Accessories

|                    |   |
|--------------------|---|
| <b>OFR-100/100</b> | Optical reflective film, 100 mm x 100 mm  |
| <b>OMH-RL31-01</b> | Mounting bracket  |
| <b>OMH-RL31-02</b> | Narrow mounting bracket   |
| <b>OMH-RL31-03</b> | Narrow mounting bracket   |
| <b>OMH-RL31-04</b> | Mounting aid for circular profile $\varnothing$ 12 mm or flat profile 1.5 mm ... 3 mm |
| <b>OMH-RL31-05</b> | Mounting bracket for mounting on flat surfaces with two M4 screws                     |
| <b>OMH-RL31-06</b> | Stainless steel mounting bracket with adjustable half clamp on the side               |
| <b>REF-H85-2</b>   | Rectangular reflector, 84.5 mm x 84.5 mm, mounting holes                              |
| <b>V1-G-2M-PUR</b> | Single-ended female cordset, M12, 4-pin, PUR cable                                    |

# RL31 Series Diffuse Mode Sensors

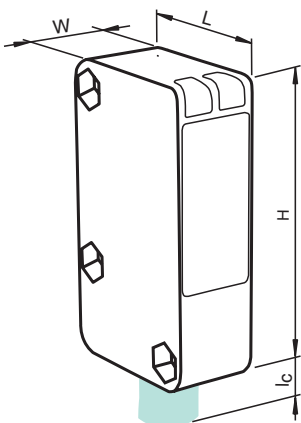


### Standard Technical Data

|                    |               |
|--------------------|---------------|
| Operating elements | Potentiometer |
| Housing length L   | 35 mm         |
| Housing width W    | 18 mm         |
| Housing height H   | 62 mm         |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number                  | Function principle          | Detection range [mm] | Light type   | Interface | Output type   | Voltage type | UB (min) | UB (max) | Connection type    | CCC | EAC | UL  |
|-------------------------------|-----------------------------|----------------------|--------------|-----------|---------------|--------------|----------|----------|--------------------|-----|-----|-----|
| RL31-8-H-800-IR/73c/136       | With background suppression | 800                  | Infrared LED |           | 2 x push-pull | DC           | 10       | 30       | M12 connector plug |     |     | ■   |
| RL31-8-H-800-RT-IO/59/115/136 | With measurement core       | 800                  | Red LED      | IO-Link   | 2 x push-pull | DC           | 10       | 30       | Fixed cable        |     |     | ■   |
| RL31-8-H-800-RT-IO/59/73c/136 | With measurement core       | 800                  | Red LED      | IO-Link   | 2 x push-pull | DC           | 10       | 30       | M12 connector plug |     |     | ■   |
| RL31-8-H-800-RT/115/136       | With background suppression | 800                  | Red LED      |           | 2 x push-pull | DC           | 10       | 30       | Fixed cable        |     |     | ■   |
| RL31-8-H-800-RT/73c/136       | With background suppression | 800                  | Red LED      |           | 2 x push-pull | DC           | 10       | 30       | M12 connector plug |     |     | ■ ■ |
| RLK31-8-1200-RT/31/115        | Energetic                   | 1200                 | Red LED      |           | Relay         | AC/DC        | 24       | 240      | Fixed cable        | ■   | ■   |     |
| RLK31-8-1200-RT/31/59/115     | Energetic                   | 1200                 | Red LED      |           | Relay         | AC/DC        | 24       | 240      | Fixed cable        | ■   | ■   |     |
| RL31-8-1200-RT/59/73c/136     | Energetic                   | 1200                 | Red LED      |           | 2 x push-pull | DC           | 10       | 30       | M12 connector plug |     |     | ■   |
| RL31-8-1200-RT/73c/136        | Energetic                   | 1200                 | Red LED      |           | 2 x push-pull | DC           | 10       | 30       | M12 connector plug |     |     | ■ ■ |
| RL31-8-2500-IR/115/136        | Energetic                   | 2500                 | Infrared LED |           | 2 x push-pull | DC           | 10       | 30       | Fixed cable        |     |     | ■   |
| RL31-8-2500-IR/59/73c/136     | Energetic                   | 2500                 | Infrared LED |           | 2 x push-pull | DC           | 10       | 30       | M12 connector plug |     |     | ■   |
| RL31-8-2500-IR/73c/136        | Energetic                   | 2500                 | Infrared LED |           | 2 x push-pull | DC           | 10       | 30       | M12 connector plug |     |     | ■ ■ |
| RLK31-8-2500-IR-3953/31       | Energetic                   | 2500                 | Infrared LED |           | Relay         | AC/DC        | 24       | 240      | Fixed cable        |     |     | ■   |
| RLK31-8-2500-IR/31/115        | Energetic                   | 2500                 | Infrared LED |           | Relay         | AC/DC        | 24       | 240      | Fixed cable        | ■   | ■   |     |
| RLK31-8-2500-IR/31/33/115-5M  | Energetic                   | 2500                 | Infrared LED |           | Relay         | AC/DC        | 24       | 240      | Fixed cable        | ■   | ■   |     |
| RLK31-8-2500-IR/31/59/115     | Energetic                   | 2500                 | Infrared LED |           | Relay         | AC/DC        | 24       | 240      | Fixed cable        | ■   | ■   |     |



### Accessories

|             |   |
|-------------|---|
| OMH-RL31-01 | Mounting bracket  |
| OMH-RL31-02 | Narrow mounting bracket   |
| OMH-RL31-03 | Narrow mounting bracket   |
| OMH-RL31-04 | Mounting aid for circular profile $\varnothing$ 12 mm or flat profile 1.5 mm ... 3 mm |
| OMH-RL31-05 | Mounting bracket for mounting on flat surfaces with two M4 screws                     |
| OMH-RL31-06 | Stainless steel mounting bracket with adjustable half clamp on the side               |
| V1-G-2M-PUR | Single-ended female cordset, M12, 4-pin, PUR cable                                    |

# MLV41 Series Retroreflective Sensors

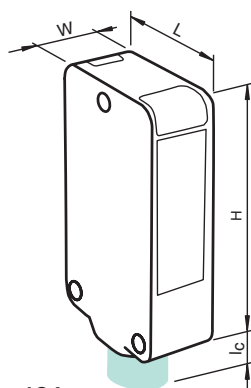


## Standard Technical Data

|                         |         |
|-------------------------|---------|
| Light type              | Red LED |
| Voltage type            | DC      |
| Operating voltage (min) | 10 V    |
| Operating voltage (max) | 30 V    |
| Housing length L        | 13.6 mm |
| Housing width W         | 31 mm   |
| Housing height H        | 56.5 mm |
| UL                      | ■       |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number                | Function principle          | Detection range [mm] | Interface | Operating elements | Output type   | Connection type    | EAC |
|-----------------------------|-----------------------------|----------------------|-----------|--------------------|---------------|--------------------|-----|
| MLV41-54-G-IO/25/92/136     | For clear object detection  | 4000                 | IO-Link   |                    | 2 x push-pull | M12 connector plug |     |
| MLV41-54-G/102/123/124/126g | For clear object detection  | 4000                 |           | Potentiometer      | NPN           | M12 connector plug |     |
| MLV41-54-G/25/115/123/136   | For clear object detection  | 4000                 |           |                    | 2 x push-pull | Fixed cable        |     |
| MLV41-54-G/25/123/124/136   | For clear object detection  | 4000                 |           |                    | 2 x push-pull | M12 connector plug |     |
| MLV41-54-G/25/70/123/136    | For clear object detection  | 4000                 |           |                    | 2 x push-pull | M9 connector plug  |     |
| MLV41-54-G/25/76a/124/136   | For clear object detection  | 4000                 |           |                    | 2 x push-pull | M12 connector plug |     |
| MLV41-54-G/25/95/136        | For clear object detection  | 4000                 |           |                    | 2 x push-pull | M8 connector plug  |     |
| MLV41-54-G/82b/103/123/124  | For clear object detection  | 4000                 |           | Potentiometer      | PNP           | M12 connector plug |     |
| MLV41-54-G/98/110           | For clear object detection  | 4000                 |           | Potentiometer      | 1 x push-pull | M8 connector plug  |     |
| MLV41-55-IO/98/103          | With polarization filter    | 7000                 | IO-Link   |                    | PNP           | M8 connector plug  |     |
| MLV41-55-IO/92/136          | With polarization filter    | 8000                 | IO-Link   |                    | 2 x push-pull | M12 connector plug |     |
| MLV41-55-IO/95/136          | With polarization filter    | 8000                 | IO-Link   |                    | 2 x push-pull | M8 connector plug  |     |
| MLV41-55/25/115/136         | With polarization filter    | 8000                 |           |                    | 2 x push-pull | Fixed cable        | ■   |
| MLV41-55/25/70/136          | With polarization filter    | 8000                 |           |                    | 2 x push-pull | M9 connector plug  |     |
| MLV41-55/25/92/136          | With polarization filter    | 8000                 |           |                    | 2 x push-pull | M12 connector plug |     |
| MLV41-55/25/95/136          | With polarization filter    | 8000                 |           |                    | 2 x push-pull | M8 connector plug  |     |
| MLV41-55/40a/82b/92/103     | With polarization filter    | 8000                 |           | Potentiometer      | PNP           | M12 connector plug |     |
| MLV41-55/40a/92/102/126b    | With polarization filter    | 8000                 |           | Potentiometer      | NPN           | M12 connector plug |     |
| MLV41-6-IO/92/136           | Without polarization filter | 9500                 | IO-Link   |                    | 2 x push-pull | M12 connector plug |     |
| MLV41-6-IO/95/136           | Without polarization filter | 9500                 | IO-Link   |                    | 2 x push-pull | M8 connector plug  |     |
| MLV41-6-IO/98/103           | Without polarization filter | 9500                 | IO-Link   |                    | PNP           | M8 connector plug  |     |
| MLV41-6/25/115/136          | Without polarization filter | 9500                 |           |                    | 2 x push-pull | Fixed cable        |     |
| MLV41-6/25/70/136           | Without polarization filter | 9500                 |           |                    | 2 x push-pull | M9 connector plug  |     |
| MLV41-6/25/82a/95/103       | Without polarization filter | 9500                 |           |                    | PNP           | M8 connector plug  |     |
| MLV41-6/25/92/136           | Without polarization filter | 9500                 |           |                    | 2 x push-pull | M12 connector plug |     |
| MLV41-6/25/95/136           | Without polarization filter | 9500                 |           |                    | 2 x push-pull | M8 connector plug  |     |
| MLV41-6/82b/92/103          | Without polarization filter | 9500                 |           |                    | PNP           | M12 connector plug |     |
| MLV41-6/92/102/126b         | Without polarization filter | 9500                 |           |                    | NPN           | M12 connector plug |     |



## Accessories

|              |   |
|--------------|---|
| OMH-09       | Mounting bracket for MLV41 series sensors for mounting on M12 round bar |
| OMH-40       | Mounting bracket  |
| V1-G-2M-PUR  | Single-ended female cordset, M12, 4-pin, PUR cable                      |
| V15-G-2M-PUR | Single-ended female cordset, M12, 5-pin, PUR cable                      |
| V3-WM-2M-PUR | Single-ended female cordset, M8, 3-pin, PUR cable                       |



# MLV41 Series

## Diffuse Mode Sensors

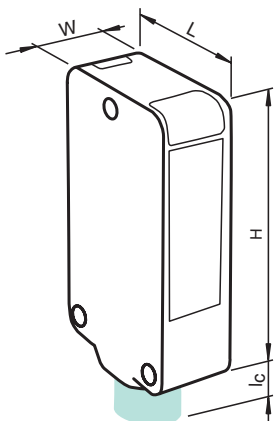


### Standard Technical Data

|                                |  |
|--------------------------------|--|
| <b>Function principle</b>      | Triangulation sensor with background suppression |
| <b>Voltage type</b>            | DC   |
| <b>Operating voltage (min)</b> | 10 V   |
| <b>Operating voltage (max)</b> | 30 V   |
| <b>Housing length L</b>        | 13.6 mm  |
| <b>Housing width W</b>         | 31 mm  |
| <b>Housing height H</b>        | 56.5 mm  |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number                   | Detection range [mm] | Light type   | Interface | Operating elements | Output type   | Connection type           | TU |
|--------------------------------|----------------------|--------------|-----------|--------------------|---------------|---------------------------|----|
| MLV41-8-HV-60-IR/110/124/167   | 60                   | Infrared LED |           |                    | 1 x push-pull | M12 connector plug        |    |
| MLV41-8-H-120-RT-IO/65b/92/136 | 120                  | Red LED      | IO-Link   | Potentiometer      | 2 x push-pull | M12 connector plug        | ■  |
| MLV41-8-H-120-RT-IO/65b/95/136 | 120                  | Red LED      | IO-Link   | Potentiometer      | 2 x push-pull | M8 connector plug         | ■  |
| MLV41-8-H-120-RT-IO/65b/98/103 | 120                  | Red LED      | IO-Link   | Potentiometer      | PNP           | M8 connector plug         | ■  |
| MLV41-8-H-120-RT/65b/92/136    | 120                  | Red LED      |           | Potentiometer      | 2 x push-pull | M12 connector plug        | ■  |
| MLV41-8-H-120-RT/65b/95/136    | 120                  | Red LED      |           | Potentiometer      | 2 x push-pull | M8 connector plug         | ■  |
| MLV41-8-H-350-IR/25/98/110     | 350                  | Infrared LED |           | Potentiometer      | 1 x push-pull | M8 connector plug         | ■  |
| MLV41-8-H-350-IR/59/115/136    | 350                  | Infrared LED |           | Potentiometer      | 2 x push-pull | Fixed cable               | ■  |
| MLV41-8-H-350-IR/59/115b/136   | 350                  | Infrared LED |           | Potentiometer      | 2 x push-pull | Fixed cable with M12 plug | ■  |
| MLV41-8-H-350-IR/59/92/136     | 350                  | Infrared LED |           | Potentiometer      | 2 x push-pull | M12 connector plug        | ■  |
| MLV41-8-H-350-IR/59/95/136     | 350                  | Infrared LED |           | Potentiometer      | 2 x push-pull | M8 connector plug         | ■  |
| MLV41-8-H-350-RT/25/115/136    | 350                  | Red LED      |           | Potentiometer      | 2 x push-pull | Fixed cable               | ■  |
| MLV41-8-H-350-RT/25/92/136     | 350                  | Red LED      |           | Potentiometer      | 2 x push-pull | M12 connector plug        | ■  |
| MLV41-8-H-350-RT/40a/98/110    | 350                  | Red LED      |           | Potentiometer      | 1 x push-pull | M8 connector plug         | ■  |
| MLV41-8-H-350-RT/59/115/136    | 350                  | Red LED      |           | Potentiometer      | 2 x push-pull | Fixed cable               | ■  |
| MLV41-8-H-350-RT/59/115b/136   | 350                  | Red LED      |           | Potentiometer      | 2 x push-pull | Fixed cable with M12 plug | ■  |
| MLV41-8-H-350-RT/59/70/136     | 350                  | Red LED      |           | Potentiometer      | 2 x push-pull | M9 connector plug         | ■  |
| MLV41-8-H-350-RT/59/71/136     | 350                  | Red LED      |           | Potentiometer      | 2 x push-pull | M9 connector plug         | ■  |
| MLV41-8-H-350-RT/59/92/136     | 350                  | Red LED      |           | Potentiometer      | 2 x push-pull | M12 connector plug        | ■  |
| MLV41-8-H-350-RT/59/95/136     | 350                  | Red LED      |           | Potentiometer      | 2 x push-pull | M8 connector plug         | ■  |
| MLV41-8-H-500-RT-IO/65b/92/136 | 500                  | Red LED      | IO-Link   | Potentiometer      | 2 x push-pull | M12 connector plug        | ■  |
| MLV41-8-H-500-RT-IO/65b/95/136 | 500                  | Red LED      | IO-Link   | Potentiometer      | 2 x push-pull | M8 connector plug         | ■  |
| MLV41-8-H-500-RT/65b/92/136    | 500                  | Red LED      |           | Potentiometer      | 2 x push-pull | M12 connector plug        | ■  |
| MLV41-8-H-500-RT/65b/95/136    | 500                  | Red LED      |           | Potentiometer      | 2 x push-pull | M8 connector plug         | ■  |



### Accessories

|                             |  |
|-----------------------------|--|
| <b>IO-Link-Master02-USB</b> | IO-Link master, supply via USB port or separate power supply, LED indicators, M12 plug for sensor connection |
| <b>OMH-09</b>               | Mounting bracket for MLV41 series sensors for mounting on M12 round bar                                      |
| <b>OMH-40</b>               | Mounting bracket   |
| <b>OMH-MLV41-8-HV-U</b>     | Mounting bracket   |
| <b>V1-G-2M-PUR</b>          | Single-ended female cordset, M12, 4-pin, PUR cable   |
| <b>V1-W-2M-PUR</b>          | Single-ended female cordset, M12, 4-pin, PUR cable   |
| <b>V31-GM-2M-PUR</b>        | Single-ended female cordset, M8, 4-pin, PUR cable  |

## R300 Series

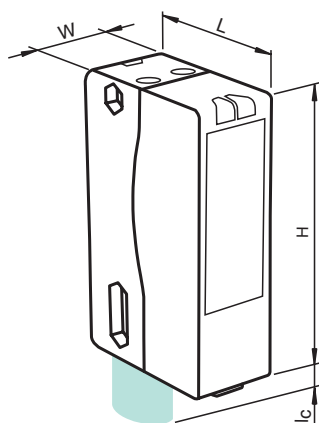


### Standard Technical Data

|                                |                    |
|--------------------------------|--------------------|
| <b>Light type</b>              | Red LED            |
| <b>Voltage type</b>            | DC                 |
| <b>Operating voltage (min)</b> | 10 V               |
| <b>Operating voltage (max)</b> | 30 V               |
| <b>Connection type</b>         | M12 connector plug |
| <b>Housing length L</b>        | 54.3 mm            |
| <b>Housing width W</b>         | 25.8 mm            |
| <b>Housing height H</b>        | 88 mm              |
| <b>UL</b>                      | ■                  |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number                 | Function principle             | Detection range [mm] | Operating elements         | Output type               |
|------------------------------|--------------------------------|----------------------|----------------------------|---------------------------|
| <b>OBR50M-R300-2P1-V1</b>    | Distance sensor                | 50000                | Push-button                | 2 x push-pull             |
| <b>OBR50M-R300-2PP-V1</b>    | Distance sensor                | 50000                | Push-button                | 2 x push-pull             |
| <b>OMR50M-R300-IEP-V1</b>    | Distance sensor                | 50000                | Potentiometer, push-button | 1 x push-pull, 1 x analog |
| <b>OMR50M-R300-UEP-V1</b>    | Distance sensor                | 50000                | Potentiometer, push-button | 1 x push-pull, 1 x analog |
| <b>OQR50M-R300-2EP-V1</b>    | Distance sensor                | 50000                | Potentiometer, push-button | 2 x push-pull             |
| <b>OBD8000-R300-2P1-V1-L</b> | Diffuse mode sensor, energetic | 8000                 | Push-button                | 2 x push-pull             |
| <b>OBD8000-R300-2PP-V1-L</b> | Diffuse mode sensor, energetic | 8000                 | Potentiometer              | 2 x push-pull             |
| <b>OMD8000-R300-IEP-V1-L</b> | Distance sensor                | 8000                 | Potentiometer, push-button | 1 x push-pull, 1 x analog |
| <b>OMD8000-R300-UEP-V1-L</b> | Distance sensor                | 8000                 | Potentiometer, push-button | 1 x push-pull, 1 x analog |
| <b>OQD8000-R300-2EP-V1-L</b> | Distance sensor                | 8000                 | Potentiometer, push-button | 2 x push-pull             |



### Accessories

|                     |   |
|---------------------|---|
| <b>OMH-05</b>       | Mounting aid for circular profile $\varnothing$ 12 mm or flat profile 1.5 mm ... 3 mm |
| <b>OMH-07-01</b>    | Mounting aid for circular profile $\varnothing$ 12 mm or flat profile 1.5 mm ... 3 mm |
| <b>OMH-22</b>       | Mounting bracket  |
| <b>OMH-K03</b>      | Mounting clamp for sensors with dovetail groove                                       |
| <b>OMH-RLK29-HW</b> | Mounting bracket for rear wall mounting   |
| <b>OMH-VDM28-01</b> | Metal enclosure for inserting protective screens or apertures                         |
| <b>OMH-VDM28-02</b> | Mounting and fine adjustment device   |
| <b>V1-W-2M-PUR</b>  | Single-ended female cordset, M12, 4-pin, PUR cable                                    |

# ML17 Series Retroreflective Sensors

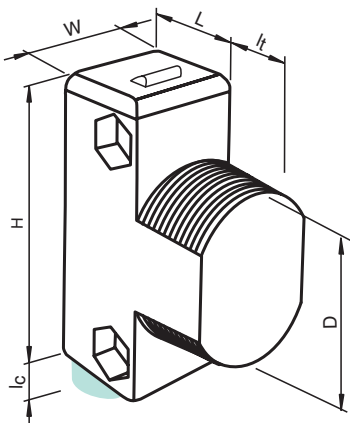


### Standard Technical Data

|                                |   |
|--------------------------------|---|
| <b>Function principle</b>      | Retroreflective sensor with polarization filter |
| <b>Detection range</b>         | 3500 mm   |
| <b>Light type</b>              | Red LED   |
| <b>Voltage type</b>            | DC  |
| <b>Operating voltage (min)</b> | 10 V  |
| <b>Operating voltage (max)</b> | 30 V  |
| <b>Housing length L</b>        | 29.3 mm   |
| <b>Housing width W</b>         | 15 mm   |
| <b>Housing height H</b>        | 34.5 mm   |
| <b>UL</b>                      | ■   |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number           | Operating elements | Output type   | Connection type           |
|------------------------|--------------------|---------------|---------------------------|
| ML17-54/115/136        | Potentiometer      | 2 x push-pull | Fixed cable               |
| ML17-54/115b/120       | Potentiometer      | PNP           | Fixed cable with M12 plug |
| ML17-54/115b/136       | Potentiometer      | 2 x push-pull | Fixed cable with M12 plug |
| ML17-54/136/143        | Potentiometer      | 2 x push-pull | M8 connector plug         |
| ML17-54/25/103/115/154 |                    | PNP           | Fixed cable               |
| ML17-54/73/136         | Potentiometer      | 2 x push-pull | M12 connector plug        |



### Accessories

|                    |  |
|--------------------|--|
| <b>OMH-ML17</b>    | Mounting bracket                                   |
| <b>OMH-ML17-1</b>  | Mounting bracket                                   |
| <b>OMH-ML17-EZ</b> | Mounting bracket                                   |
| <b>V1-W-2M-PUR</b> | Single-ended female cordset, M12, 4-pin, PUR cable |

# ML17 Series Diffuse Mode Sensors

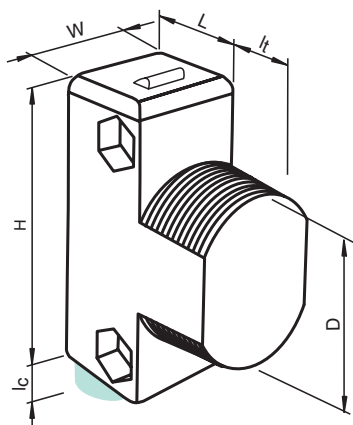


### Standard Technical Data

|                                |               |
|--------------------------------|---------------|
| <b>Output type</b>             | 2 x push-pull |
| <b>Voltage type</b>            | DC            |
| <b>Operating voltage (min)</b> | 10 V          |
| <b>Operating voltage (max)</b> | 30 V          |
| <b>Housing length L</b>        | 29.3 mm       |
| <b>Housing width W</b>         | 15 mm         |
| <b>Housing height H</b>        | 34.5 mm       |
| <b>UL</b>                      | ■             |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number             | Function principle                               | Detection range [mm] | Light type   | Operating elements | Connection type           |
|--------------------------|--|----------------------|--------------|--------------------|---------------------------|
| ML17-8-H-50-RT/115/136   | Triangulation sensor with background suppression | 50                   | Red LED      |                    | Fixed cable               |
| ML17-8-H-50-RT/115b/136  | Triangulation sensor with background suppression | 50                   | Red LED      |                    | Fixed cable with M12 plug |
| ML17-8-H-50-RT/136/143   | Triangulation sensor with background suppression | 50                   | Red LED      |                    | M8 connector plug         |
| ML17-8-H-50-RT/73/136    | Triangulation sensor with background suppression | 50                   | Red LED      |                    | M12 connector plug        |
| ML17-8-H-100-RT/115/136  | Triangulation sensor with background suppression | 100                  | Red LED      |                    | Fixed cable               |
| ML17-8-H-100-RT/115b/136 | Triangulation sensor with background suppression | 100                  | Red LED      |                    | Fixed cable with M12 plug |
| ML17-8-H-100-RT/136/143  | Triangulation sensor with background suppression | 100                  | Red LED      |                    | M8 connector plug         |
| ML17-8-H-100-RT/73/136   | Triangulation sensor with background suppression | 100                  | Red LED      |                    | M12 connector plug        |
| ML17-8-450/115/136       | Diffuse mode sensor, energetic                   | 450                  | Infrared LED | Potentiometer      | Fixed cable               |
| ML17-8-450/115b/136      | Diffuse mode sensor, energetic                   | 450                  | Infrared LED | Potentiometer      | Fixed cable with M12 plug |
| ML17-8-450/136/143       | Diffuse mode sensor, energetic                   | 450                  | Infrared LED | Potentiometer      | M8 connector plug         |
| ML17-8-450/73/136        | Diffuse mode sensor, energetic                   | 450                  | Infrared LED | Potentiometer      | M12 connector plug        |



### Accessories

|                      |  |
|----------------------|--|
| <b>OMH-ML17</b>      | Mounting bracket                                   |
| <b>OMH-ML17-1</b>    | Mounting bracket                                   |
| <b>OMH-ML17-EZ</b>   | Mounting bracket                                   |
| <b>V1-G-2M-PUR</b>   | Single-ended female cordset, M12, 4-pin, PUR cable |
| <b>V1-W-2M-PUR</b>   | Single-ended female cordset, M12, 4-pin, PUR cable |
| <b>V31-GM-2M-PUR</b> | Single-ended female cordset, M8, 4-pin, PUR cable  |

## ML29 Series



### Standard Technical Data

|                           |                  |
|---------------------------|------------------|
| <b>Function principle</b> | Thru-beam sensor |
| <b>Light type</b>         | Infrared LED     |
| <b>Voltage type</b>       | DC               |
| <b>Housing length L</b>   | 9.2 mm           |
| <b>Housing width W</b>    | 11.6 mm          |
| <b>Housing height H</b>   | 85.2 mm          |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number                   | Detection range [mm] | Output type | UB (min) | UB (max) | Connection type | EAC |
|--------------------------------|----------------------|-------------|----------|----------|-----------------|-----|
| <b>ML29T-P/32/59/115 100mm</b> | 2500                 | PNP         | 10       | 32       | Fixed cable     |     |
| <b>ML29-2P/25/103/143</b>      | 5000                 | PNP         | 11       | 30       | Other           |     |
| <b>ML29-P/25/102/115</b>       | 6000                 | NPN         | 11       | 30       | Fixed cable     |     |
| <b>ML29-P/25/102/143</b>       | 6000                 | NPN         | 11       | 30       | Other           |     |
| <b>ML29-P/25/103/115</b>       | 6000                 | PNP         | 11       | 30       | Fixed cable     | ■   |
| <b>ML29-P/25/103/143</b>       | 6000                 | PNP         | 11       | 30       | Other           |     |
| <b>ML29-P/59/102/115</b>       | 6000                 | NPN         | 11       | 30       | Fixed cable     |     |
| <b>ML29-P/59/102/143</b>       | 6000                 | NPN         | 11       | 30       | Other           |     |
| <b>ML29-P/59/103/115</b>       | 6000                 | PNP         | 11       | 30       | Fixed cable     |     |
| <b>ML29-P/59/103/143</b>       | 6000                 | PNP         | 11       | 30       | Other           |     |

### Accessories

|                         |   |
|-------------------------|---|
| <b>ML29 Front Plate</b> | Front panel for ML29 series thru-beam sensors |
|-------------------------|---|

# ML100 Series Thru-Beam Sensors

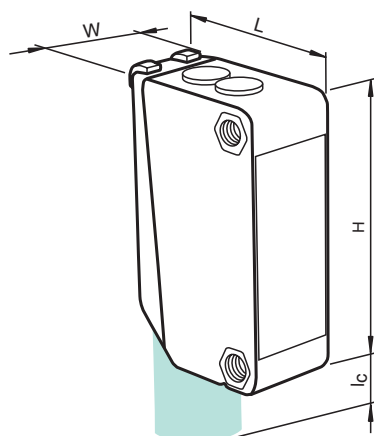


### Standard Technical Data

|                                |                  |
|--------------------------------|------------------|
| <b>Function principle</b>      | Thru-beam sensor |
| <b>Voltage type</b>            | DC               |
| <b>Operating voltage (min)</b> | 10 V             |
| <b>Operating voltage (max)</b> | 30 V             |
| <b>Housing length L</b>        | 20 mm            |
| <b>Housing width W</b>         | 11 mm            |
| <b>Housing height H</b>        | 31 mm            |
| <b>UL</b>                      | ■                |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number                 | Detection range [mm] | Light type   | Operating elements | Output type | Connection type          | E1 type approval |
|------------------------------|----------------------|--------------|--------------------|-------------|--------------------------|------------------|
| M100/MV100-RT/76a/103/115    | 10000                | Red LED      | Potentiometer      | PNP         | Fixed cable              |                  |
| M100/MV100-RT/76a/103/115a   | 10000                | Red LED      | Potentiometer      | PNP         | Fixed cable with M8 plug |                  |
| M100/MV100-RT/76a/95/103     | 10000                | Red LED      | Potentiometer      | PNP         | M8 connector plug        |                  |
| M100/MV100-RT/76a/98/103     | 10000                | Red LED      | Potentiometer      | PNP         | M8 connector plug        |                  |
| M100/MV100-RT/76b/102/115    | 10000                | Red LED      | Potentiometer      | NPN         | Fixed cable              |                  |
| M100/MV100-RT/76b/102/115a   | 10000                | Red LED      | Potentiometer      | NPN         | Fixed cable with M8 plug |                  |
| M100/MV100-RT/76b/95/102     | 10000                | Red LED      | Potentiometer      | NPN         | M8 connector plug        |                  |
| M100/MV100-RT/76b/98/102     | 10000                | Red LED      | Potentiometer      | NPN         | M8 connector plug        |                  |
| M100/MV100-IR/76a/103/115    | 15000                | Infrared LED | Potentiometer      | PNP         | Fixed cable              |                  |
| M100/MV100-IR/76a/95/103     | 15000                | Infrared LED | Potentiometer      | PNP         | M8 connector plug        |                  |
| M100/MV100-IR/76b/102/115    | 15000                | Infrared LED | Potentiometer      | NPN         | Fixed cable              |                  |
| M100/MV100-IR/95/120/154     | 15000                | Infrared LED |                    | PNP         | M8 connector plug        | ■                |
| M100/MV100-RT/35/102/115/154 | 20000                | Red LED      |                    | NPN         | Fixed cable              |                  |
| M100/MV100-RT/35/103/115/154 | 20000                | Red LED      |                    | PNP         | Fixed cable              |                  |
| M100/MV100-RT/35/76a/103/115 | 20000                | Red LED      | Potentiometer      | PNP         | Fixed cable              |                  |
| M100/MV100-RT/35/76a/95/103  | 20000                | Red LED      | Potentiometer      | PNP         | M8 connector plug        |                  |
| M100/MV100-RT/35/76a/98/103  | 20000                | Red LED      | Potentiometer      | PNP         | M8 connector plug        |                  |
| M100/MV100-RT/35/76b/102/115 | 20000                | Red LED      | Potentiometer      | NPN         | Fixed cable              |                  |
| M100/MV100-RT/35/76b/95/102  | 20000                | Red LED      | Potentiometer      | NPN         | M8 connector plug        |                  |
| M100/MV100-RT/35/76b/98/102  | 20000                | Red LED      | Potentiometer      | NPN         | M8 connector plug        |                  |



### Accessories

|                      |   |
|----------------------|---|
| <b>OMH-10</b>        | Mounting aid  |
| <b>OMH-F10-ML100</b> | Mounting aid  |
| <b>OMH-ML100-01</b>  | Mounting aid, mounting bracket  |
| <b>OMH-ML100-02</b>  | Mounting aid, mounting bracket  |
| <b>OMH-ML100-04</b>  | Mounting aid, mounting bracket  |
| <b>OMH-ML100-05</b>  | Mounting aid, mounting bracket  |
| <b>OMH-ML100-09</b>  | Mounting aid for circular profile $\varnothing$ 12 mm or flat profile 1.5 mm ... 3 mm |
| <b>OMH-ML100-S1</b>  | Mounting bracket  |
| <b>OMH-ML100-S2</b>  | Mounting aid, mounting bracket  |
| <b>V31-GM-2M-PUR</b> | Single-ended female cordset, M8, 4-pin, PUR cable                                     |







# ML100 Series Retroreflective Sensors

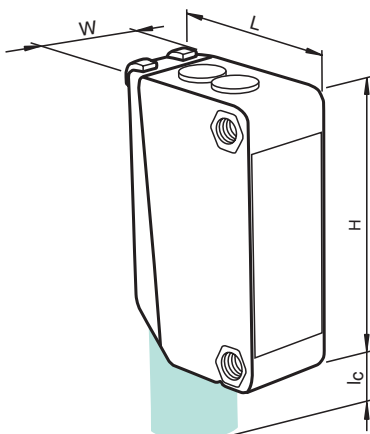


| Standard Technical Data |       |
|-------------------------|-------|
| Voltage type            | DC    |
| Operating voltage (min) | 10 V  |
| Operating voltage (max) | 30 V  |
| Housing length L        | 20 mm |
| Housing width W         | 11 mm |
| Housing height H        | 31 mm |
| UL                      | ■     |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number                 | Function principle       | Detection range [mm] | Light type | Operating elements | Output type | Connection type           | EAC | UL | E1 |
|------------------------------|--------------------------|----------------------|------------|--------------------|-------------|---------------------------|-----|----|----|
| ML100-55-G/102/115           | With polarization filter | 2500                 | Red LED    | Potentiometer      | NPN         | Fixed cable               |     | ■  |    |
| ML100-55-G/103/115           | With polarization filter | 2500                 | Red LED    | Potentiometer      | PNP         | Fixed cable               |     | ■  |    |
| ML100-55-G/95/102            | With polarization filter | 2500                 | Red LED    | Potentiometer      | NPN         | M8 connector plug         |     | ■  |    |
| ML100-55-G/95/103            | With polarization filter | 2500                 | Red LED    | Potentiometer      | PNP         | M8 connector plug         |     | ■  |    |
| ML100-54-F/102/115           | With polarization filter | 2700                 | Red LED    | Potentiometer      | NPN         | Fixed cable               |     | ■  |    |
| ML100-54-F/103/115           | With polarization filter | 2700                 | Red LED    | Potentiometer      | PNP         | Fixed cable               |     | ■  |    |
| ML100-54-F/103/115b          | With polarization filter | 2700                 | Red LED    | Potentiometer      | PNP         | Fixed cable with M12 plug |     | ■  |    |
| ML100-54-F/25/102/115/154    | With polarization filter | 2700                 | Red LED    |                    | NPN         | Fixed cable               |     | ■  |    |
| ML100-54-F/25/103/115/154    | With polarization filter | 2700                 | Red LED    |                    | PNP         | Fixed cable               |     | ■  |    |
| ML100-54-F/25/103/115a/154   | With polarization filter | 2700                 | Red LED    |                    | PNP         | Fixed cable with M8 plug  |     | ■  |    |
| ML100-54-F/25/103/115b/154   | With polarization filter | 2700                 | Red LED    |                    | PNP         | Fixed cable with M12 plug |     | ■  |    |
| ML100-54-F/25/95/102/154     | With polarization filter | 2700                 | Red LED    |                    | NPN         | M8 connector plug         |     | ■  |    |
| ML100-54-F/25/95/103/154     | With polarization filter | 2700                 | Red LED    |                    | PNP         | M8 connector plug         |     | ■  |    |
| ML100-54-F/95/102            | With polarization filter | 2700                 | Red LED    | Potentiometer      | NPN         | M8 connector plug         |     | ■  |    |
| ML100-54-F/95/103            | With polarization filter | 2700                 | Red LED    | Potentiometer      | PNP         | M8 connector plug         |     | ■  |    |
| ML100-54/102/115             | With polarization filter | 3500                 | Red LED    | Potentiometer      | NPN         | Fixed cable               |     | ■  |    |
| ML100-54/103/115             | With polarization filter | 3500                 | Red LED    | Potentiometer      | PNP         | Fixed cable               |     | ■  |    |
| ML100-54/59/82a/103/115a/154 | With polarization filter | 3500                 | Red LED    |                    | PNP         | Fixed cable with M8 plug  |     | ■  |    |
| ML100-54/95/102              | With polarization filter | 3500                 | Red LED    | Potentiometer      | NPN         | M8 connector plug         |     | ■  |    |
| ML100-54/95/103              | With polarization filter | 3500                 | Red LED    | Potentiometer      | PNP         | M8 connector plug         |     | ■  |    |
| ML100-55/102/115             | With polarization filter | 5000                 | Red LED    | Potentiometer      | NPN         | Fixed cable               |     | ■  |    |
| ML100-55/103/115             | With polarization filter | 5000                 | Red LED    | Potentiometer      | PNP         | Fixed cable               |     | ■  |    |
| ML100-55/103/115a            | With polarization filter | 5000                 | Red LED    | Potentiometer      | PNP         | Fixed cable with M8 plug  | ■   | ■  |    |
| ML100-55/103/115b            | With polarization filter | 5000                 | Red LED    | Potentiometer      | PNP         | Fixed cable with M12 plug | ■   | ■  |    |
| ML100-55/115b/120            | With polarization filter | 5000                 | Red LED    | Potentiometer      | PNP         | Fixed cable with M12 plug |     | ■  |    |
| ML100-55/25/103/115b/154     | With polarization filter | 5000                 | Red LED    |                    | PNP         | Fixed cable with M12 plug |     | ■  |    |
| ML100-55/25/115b/120/154     | With polarization filter | 5000                 | Red LED    |                    | PNP         | Fixed cable with M12 plug |     | ■  |    |
| ML100-55/25/95/103/154       | With polarization filter | 5000                 | Red LED    |                    | PNP         | M8 connector plug         |     | ■  |    |
| ML100-55/33/103/115-5M       | With polarization filter | 5000                 | Red LED    | Potentiometer      | PNP         | Fixed cable               |     | ■  |    |
| ML100-55/33/103/115a         | With polarization filter | 5000                 | Red LED    | Potentiometer      | PNP         | Fixed cable with M8 plug  |     | ■  |    |
| ML100-55/59/103/115          | With polarization filter | 5000                 | Red LED    | Potentiometer      | PNP         | Fixed cable               |     | ■  |    |
| ML100-55/59/103/115a/154     | With polarization filter | 5000                 | Red LED    |                    | PNP         | Fixed cable with M8 plug  |     | ■  |    |
| ML100-55/59/103/115b         | With polarization filter | 5000                 | Red LED    | Potentiometer      | PNP         | Fixed cable with M12 plug |     | ■  |    |
| ML100-55/59/95/103           | With polarization filter | 5000                 | Red LED    | Potentiometer      | PNP         | M8 connector plug         | ■   | ■  |    |
| ML100-55/59/95/103/154       | With polarization filter | 5000                 | Red LED    |                    | PNP         | M8 connector plug         |     | ■  |    |
| ML100-55/59/98/103/154       | With polarization filter | 5000                 | Red LED    |                    | PNP         | M8 connector plug         |     | ■  |    |
| ML100-55/82a/103/115a        | With polarization filter | 5000                 | Red LED    | Potentiometer      | PNP         | Fixed cable with M8 plug  | ■   | ■  |    |
| ML100-55/95/102              | With polarization filter | 5000                 | Red LED    | Potentiometer      | NPN         | M8 connector plug         |     | ■  |    |
| ML100-55/95/103              | With polarization filter | 5000                 | Red LED    | Potentiometer      | PNP         | M8 connector plug         | ■   | ■  |    |
| ML100-55/98/102              | With polarization filter | 5000                 | Red LED    | Potentiometer      | NPN         | M8 connector plug         |     | ■  |    |

| Model number                 | Function principle          | Detection range [mm] | Light type   | Operating elements | Output type | Connection type   | EAC | UL | E1 |
|------------------------------|-----------------------------|----------------------|--------------|--------------------|-------------|-------------------|-----|----|----|
| <b>ML100-55/98/103</b>       | With polarization filter    | 5000                 | Red LED      | Potentiometer      | PNP         | M8 connector plug |     | ■  |    |
| <b>ML100-6-IR/102/115</b>    | Without polarization filter | 5000                 | Infrared LED | Potentiometer      | NPN         | Fixed cable       |     | ■  | ■  |
| <b>ML100-6-IR/103/115</b>    | Without polarization filter | 5000                 | Infrared LED | Potentiometer      | PNP         | Fixed cable       |     | ■  | ■  |
| <b>ML100-6-IR/33/102/115</b> | Without polarization filter | 5000                 | Infrared LED | Potentiometer      | NPN         | Fixed cable       |     | ■  | ■  |
| <b>ML100-6-IR/95/102</b>     | Without polarization filter | 5000                 | Infrared LED | Potentiometer      | NPN         | M8 connector plug |     | ■  | ■  |
| <b>ML100-6-IR/95/103</b>     | Without polarization filter | 5000                 | Infrared LED | Potentiometer      | PNP         | M8 connector plug |     | ■  | ■  |



| Accessories          |  |
|----------------------|--|
| <b>OFR-70-2</b>      | Optical reflective film, 70 mm x 70 mm   |
| <b>OMH-10</b>        | Mounting aid   |
| <b>OMH-F10-ML100</b> | Mounting aid   |
| <b>OMH-ML100-01</b>  | Mounting aid, mounting bracket   |
| <b>OMH-ML100-03</b>  | Mounting bracket for circular profiles $\varnothing$ 12 mm or flat profiles 1.5 mm |
| <b>OMH-ML100-04</b>  | Mounting aid, mounting bracket   |
| <b>OMH-ML100-05</b>  | Mounting aid, mounting bracket   |
| <b>OMH-ML100-08</b>  | Mounting aid, snap-on mounting   |
| <b>OMH-ML100-09</b>  | Mounting bracket for circular profiles $\varnothing$ 12 mm or flat profiles 1.5 mm |
| <b>OMH-ML100-S1</b>  | Mounting bracket   |

# ML100 Series

## Diffuse Mode Sensors



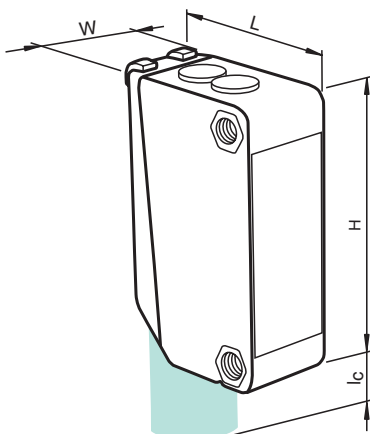
### Standard Technical Data

|                                |               |
|--------------------------------|---------------|
| <b>Operating elements</b>      | Potentiometer |
| <b>Voltage type</b>            | DC            |
| <b>Operating voltage (min)</b> | 10 V          |
| <b>Operating voltage (max)</b> | 30 V          |
| <b>Housing length L</b>        | 20 mm         |
| <b>Housing width W</b>         | 11 mm         |
| <b>Housing height H</b>        | 31 mm         |
| <b>UL</b>                      | ■             |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number                   | Function principle          | Detection range [mm] | Light type   | Output type | Connection type           | EAC |
|--------------------------------|-----------------------------|----------------------|--------------|-------------|---------------------------|-----|
| ML100-8-HW-350-RT/95/103       | With background evaluation  | 350                  | Red LED      | PNP         | M8 connector plug         |     |
| ML100-8-H-100-RT/102/115       | With background suppression | 100                  | Red LED      | NPN         | Fixed cable               |     |
| ML100-8-H-100-RT/103/115       | With background suppression | 100                  | Red LED      | PNP         | Fixed cable               |     |
| ML100-8-H-100-RT/103/115a      | With background suppression | 100                  | Red LED      | PNP         | Fixed cable with M8 plug  |     |
| ML100-8-H-100-RT/95/102        | With background suppression | 100                  | Red LED      | NPN         | M8 connector plug         |     |
| ML100-8-H-100-RT/95/103        | With background suppression | 100                  | Red LED      | PNP         | M8 connector plug         |     |
| ML100-8-H-100/115/120/162      | With background suppression | 100                  | Red LED      | PNP         | Fixed cable               |     |
| ML100-8-H-100/115/127/162      | With background suppression | 100                  | Red LED      | NPN         | Fixed cable               |     |
| ML100-8-H-100/95/120/162       | With background suppression | 100                  | Red LED      | PNP         | M8 connector plug         |     |
| ML100-8-H-100/95/127/162       | With background suppression | 100                  | Red LED      | NPN         | M8 connector plug         |     |
| ML100-8-HGU-100-RT/102/115/162 | With convergent beam        | 100                  | Red LED      | NPN         | Fixed cable               |     |
| ML100-8-HGU-100-RT/103/115/162 | With convergent beam        | 100                  | Red LED      | PNP         | Fixed cable               |     |
| ML100-8-HGU-100-RT/95/102/162  | With convergent beam        | 100                  | Red LED      | NPN         | M8 connector plug         |     |
| ML100-8-HGU-100-RT/95/103/162  | With convergent beam        | 100                  | Red LED      | PNP         | M8 connector plug         |     |
| ML100-8-H-200-IR/102/115       | With background suppression | 200                  | Infrared LED | NPN         | Fixed cable               |     |
| ML100-8-H-200-IR/103/115       | With background suppression | 200                  | Infrared LED | PNP         | Fixed cable               |     |
| ML100-8-H-200-IR/95/102        | With background suppression | 200                  | Infrared LED | NPN         | M8 connector plug         |     |
| ML100-8-H-200-IR/95/103        | With background suppression | 200                  | Infrared LED | PNP         | M8 connector plug         |     |
| ML100-8-W-200-RT/95/103        | Energetic                   | 200                  | Red LED      | PNP         | M8 connector plug         |     |
| ML100-8-W-200-RT/102/115       | Energetic                   | 200                  | Red LED      | NPN         | Fixed cable               |     |
| ML100-8-W-200-RT/102/115b      | Energetic                   | 200                  | Red LED      | NPN         | Fixed cable with M12 plug |     |
| ML100-8-W-200-RT/103/115       | Energetic                   | 200                  | Red LED      | PNP         | Fixed cable               |     |
| ML100-8-W-200-RT/103/115b      | Energetic                   | 200                  | Red LED      | PNP         | Fixed cable with M12 plug |     |
| ML100-8-W-200-RT/95/102        | Energetic                   | 200                  | Red LED      | NPN         | M8 connector plug         |     |
| ML100-8-H-350-RT/102/115       | With background suppression | 350                  | Red LED      | NPN         | Fixed cable               |     |
| ML100-8-H-350-RT/102/115a      | With background suppression | 350                  | Red LED      | NPN         | Fixed cable with M8 plug  |     |
| ML100-8-H-350-RT/103/115       | With background suppression | 350                  | Red LED      | PNP         | Fixed cable               |     |
| ML100-8-H-350-RT/103/115a      | With background suppression | 350                  | Red LED      | PNP         | Fixed cable with M8 plug  |     |
| ML100-8-H-350-RT/103/115b      | With background suppression | 350                  | Red LED      | PNP         | Fixed cable with M12 plug |     |
| ML100-8-H-350-RT/33/103/115a   | With background suppression | 350                  | Red LED      | PNP         | Fixed cable with M8 plug  |     |
| ML100-8-H-350-RT/33/103/115b   | With background suppression | 350                  | Red LED      | PNP         | Fixed cable with M12 plug |     |
| ML100-8-H-350-RT/95/102        | With background suppression | 350                  | Red LED      | NPN         | M8 connector plug         |     |
| ML100-8-H-350-RT/95/103        | With background suppression | 350                  | Red LED      | PNP         | M8 connector plug         |     |
| ML100-8-H-350-RT/98/102        | With background suppression | 350                  | Red LED      | NPN         | M8 connector plug         |     |
| ML100-8-H-350-RT/98/103        | With background suppression | 350                  | Red LED      | PNP         | M8 connector plug         |     |
| ML100-8-HW-350-RT/102/115      | With background evaluation  | 350                  | Red LED      | NPN         | Fixed cable               |     |
| ML100-8-HW-350-RT/103/115      | With background evaluation  | 350                  | Red LED      | PNP         | Fixed cable               |     |
| ML100-8-HW-350-RT/95/102       | With background evaluation  | 350                  | Red LED      | NPN         | M8 connector plug         |     |
| ML100-8-1000-RT/102/115        | Energetic                   | 1000                 | Red LED      | NPN         | Fixed cable               |     |
| ML100-8-1000-RT/103/115        | Energetic                   | 1000                 | Red LED      | PNP         | Fixed cable               |     |

| Model number                       | Function principle | Detection range [mm] | Light type | Output type | Connection type           | EAC |
|------------------------------------|--------------------|----------------------|------------|-------------|---------------------------|-----|
| <b>ML100-8-1000-RT/103/115a-1M</b> | Energetic          | 1000                 | Red LED    | PNP         | Fixed cable with M8 plug  | ■   |
| <b>ML100-8-1000-RT/103/115b</b>    | Energetic          | 1000                 | Red LED    | PNP         | Fixed cable with M12 plug | ■   |
| <b>ML100-8-1000-RT/95/102</b>      | Energetic          | 1000                 | Red LED    | NPN         | M8 connector plug         |     |
| <b>ML100-8-1000-RT/95/103</b>      | Energetic          | 1000                 | Red LED    | PNP         | M8 connector plug         |     |
| <b>ML100-8-1000-RT/98/102</b>      | Energetic          | 1000                 | Red LED    | NPN         | M8 connector plug         |     |
| <b>ML100-8-1000-RT/98/103</b>      | Energetic          | 1000                 | Red LED    | PNP         | M8 connector plug         |     |



#### Accessories

|                      |   |
|----------------------|---|
| <b>OMH-10</b>        | Mounting aid  |
| <b>OMH-F10-ML100</b> | Mounting aid  |
| <b>OMH-ML100-01</b>  | Mounting aid, mounting bracket  |
| <b>OMH-ML100-02</b>  | Mounting aid, mounting bracket  |
| <b>OMH-ML100-03</b>  | Mounting aid for circular profile $\varnothing$ 12 mm or flat profiles 1.5 mm ... 3 mm  |
| <b>OMH-ML100-04</b>  | Mounting aid, mounting bracket  |
| <b>OMH-ML100-05</b>  | Mounting aid, mounting bracket  |
| <b>OMH-ML100-09</b>  | Mounting aid for circular profiles $\varnothing$ 12 mm or flat profiles 1.5 mm ... 3 mm |
| <b>OMH-ML100-S1</b>  | Mounting bracket  |
| <b>V31-GM-2M-PUR</b> | Single-ended female cordset, M8, 4-pin, PUR cable                                       |

# ML300 Series Thru-Beam Sensors

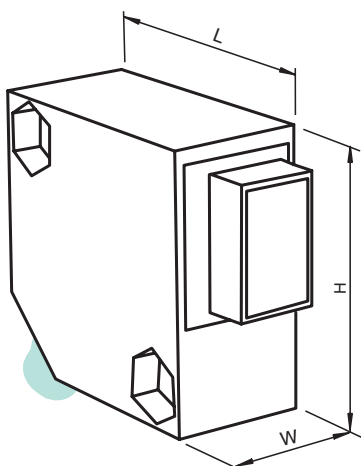


## Standard Technical Data

|                                |                  |
|--------------------------------|------------------|
| <b>Function principle</b>      | Thru-beam sensor |
| <b>Operating elements</b>      | Potentiometer    |
| <b>Voltage type</b>            | DC               |
| <b>Operating voltage (min)</b> | 10 V             |
| <b>Operating voltage (max)</b> | 30 V             |
| <b>Housing length L</b>        | 15 mm            |
| <b>Housing width W</b>         | 30 mm            |
| <b>Housing height H</b>        | 30 mm            |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number                   | Detection range [mm] | Light type   | Output type | Connection type   | EAC |
|--------------------------------|----------------------|--------------|-------------|-------------------|-----|
| ML300-P-6m-RT/25/102/115       | 6000                 | Red LED      | NPN         | Fixed cable       |     |
| ML300-P-6m-RT/25/103/115       | 6000                 | Red LED      | PNP         | Fixed cable       |     |
| ML300-P-6m-RT/25/98/102        | 6000                 | Red LED      | NPN         | M8 connector plug |     |
| ML300-P-6m-RT/25/98/103        | 6000                 | Red LED      | PNP         | M8 connector plug | ■   |
| ML300-P-6m-RT/59/102/115       | 6000                 | Red LED      | NPN         | Fixed cable       |     |
| ML300-P-6m-RT/59/103/115       | 6000                 | Red LED      | PNP         | Fixed cable       |     |
| ML300-P-6m-RT/59/98/102        | 6000                 | Red LED      | NPN         | M8 connector plug |     |
| ML300-P-6m-RT/59/98/103        | 6000                 | Red LED      | PNP         | M8 connector plug |     |
| ML300-P-12m-IR/76b/115/120     | 12000                | Infrared LED | PNP         | Fixed cable       |     |
| ML300-P-12m-IR/76b/115/127     | 12000                | Infrared LED | NPN         | Fixed cable       |     |
| ML300-P-12m-IR/76b/82d/103/115 | 12000                | Infrared LED | PNP         | Fixed cable       |     |
| ML300-P-12m-IR/76b/82d/95/103  | 12000                | Infrared LED | PNP         | M8 connector plug |     |
| ML300-P-12m-IR/76b/95/120      | 12000                | Infrared LED | PNP         | M8 connector plug |     |
| ML300-P-12m-IR/76b/95/127      | 12000                | Infrared LED | NPN         | M8 connector plug |     |



## Accessories

|                      |   |
|----------------------|---|
| <b>OMH-ML300-01</b>  | Mounting bracket for ML300 series sensors         |
| <b>OMH-ML300-02</b>  | Mounting bracket for ML300 series sensors         |
| <b>V3-GM-2M-PVC</b>  | Single-ended female cordset, M8, 3-pin, PVC cable |
| <b>V3-WM-2M-PUR</b>  | Single-ended female cordset, M8, 3-pin, PUR cable |
| <b>V3-WM-2M-PVC</b>  | Single-ended female cordset, M8, 3-pin, PVC cable |
| <b>V31-GM-2M-PVC</b> | Single-ended female cordset, M8, 4-pin, PVC cable |
| <b>V31-WM-5M-PUR</b> | Single-ended female cordset, M8, 4-pin, PUR cable |



## ML300 Series Retroreflective Sensors

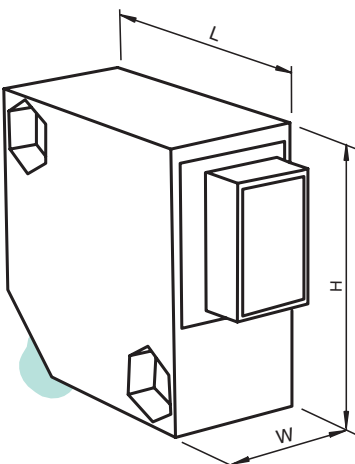


### Standard Technical Data

|                                |   |
|--------------------------------|---|
| <b>Function principle</b>      | Retroreflective sensor with polarization filter |
| <b>Light type</b>              | Red LED   |
| <b>Operating elements</b>      | Potentiometer                                   |
| <b>Voltage type</b>            | DC  |
| <b>Operating voltage (min)</b> | 10 V  |
| <b>Operating voltage (max)</b> | 30 V  |
| <b>Housing length L</b>        | 15 mm   |
| <b>Housing width W</b>         | 30 mm   |
| <b>Housing height H</b>        | 30 mm   |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number                  | Detection range [mm] | Output type | Connection type   |
|-------------------------------|----------------------|-------------|-------------------|
| ML300-55-2m-RT/25/102/115     | 2000                 | NPN         | Fixed cable       |
| ML300-55-2m-RT/25/103/115     | 2000                 | PNP         | Fixed cable       |
| ML300-55-2m-RT/25/98/102      | 2000                 | NPN         | M8 connector plug |
| ML300-55-2m-RT/25/98/103      | 2000                 | PNP         | M8 connector plug |
| ML300-55-2m-RT/59/102/115     | 2000                 | NPN         | Fixed cable       |
| ML300-55-2m-RT/59/103/115     | 2000                 | PNP         | Fixed cable       |
| ML300-55-2m-RT/59/98/102      | 2000                 | NPN         | M8 connector plug |
| ML300-55-2m-RT/59/98/103      | 2000                 | PNP         | M8 connector plug |
| ML300-55-6m-RT/25/115/120     | 6000                 | PNP         | Fixed cable       |
| ML300-55-6m-RT/25/115/127     | 6000                 | NPN         | Fixed cable       |
| ML300-55-6m-RT/25/82d/103/115 | 6000                 | PNP         | Fixed cable       |
| ML300-55-6m-RT/25/82d/95/103  | 6000                 | PNP         | M8 connector plug |
| ML300-55-6m-RT/25/95/120      | 6000                 | PNP         | M8 connector plug |
| ML300-55-6m-RT/25/95/127      | 6000                 | NPN         | M8 connector plug |

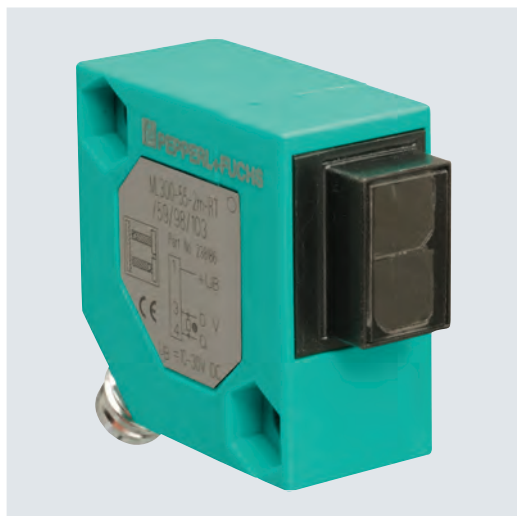


### Accessories

|                      |   |
|----------------------|---|
| <b>OFR-100/100</b>   | Optical reflective film, 100 mm x 100 mm                            |
| <b>OMH-ML300-01</b>  | Mounting bracket  |
| <b>OMH-ML300-02</b>  | Mounting bracket on 35 mm DIN mounting rail                         |
| <b>REF-C110-2</b>    | Round reflector $\varnothing$ 84 mm, mounting hole in center        |
| <b>REF-H50</b>       | Rectangular reflector, 51 mm x 61 mm, mounting holes, retaining tab |
| <b>REF-H60-2</b>     | Reflector with mounting holes                                       |
| <b>REF-H85-2</b>     | Rectangular reflector, 84.5 mm x 84.5 mm, mounting holes            |
| <b>V3-GM-2M-PVC</b>  | Single-ended female cordset, M8, 3-pin, PVC cable                   |
| <b>V3-WM-2M-PVC</b>  | Single-ended female cordset, M8, 3-pin, PVC cable                   |
| <b>V31-GM-2M-PVC</b> | Single-ended female cordset, M8, 4-pin, PVC cable                   |

# ML300 Series

## Diffuse Mode Sensors

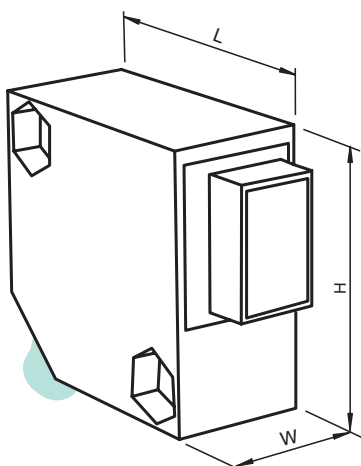


### Standard Technical Data

|                         |       |
|-------------------------|-------|
| Voltage type            | DC    |
| Operating voltage (max) | 30 V  |
| Housing length L        | 15 mm |
| Housing width W         | 30 mm |
| Housing height H        | 30 mm |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepper-fuchs.com](http://www.pepper-fuchs.com).

| Model number                   | Function principle          | Detection range [mm] | Light type   | Operating elements | Output type   | UB (min) | Connection type   |
|--------------------------------|-----------------------------|----------------------|--------------|--------------------|---------------|----------|-------------------|
| ML300-8-100-RT/79a/115/122     | Energetic                   | 100                  | Red LED      |                    | Analog output | 15       | Fixed cable       |
| ML300-8-100-RT/79a/95/122      | Energetic                   | 100                  | Red LED      |                    | Analog output | 15       | M8 connector plug |
| ML300-8-H-200-RT/59/98/103     | With background suppression | 200                  | Red LED      | Potentiometer      | PNP           | 10       | M8 connector plug |
| ML300-8-H-200-RT/25/115/120    | With background suppression | 200                  | Red LED      | Potentiometer      | PNP           | 10       | Fixed cable       |
| ML300-8-H-200-RT/25/115/127    | With background suppression | 200                  | Red LED      | Potentiometer      | NPN           | 10       | Fixed cable       |
| ML300-8-H-200-RT/25/95/120     | With background suppression | 200                  | Red LED      | Potentiometer      | PNP           | 10       | M8 connector plug |
| ML300-8-H-200-RT/25/95/127     | With background suppression | 200                  | Red LED      | Potentiometer      | NPN           | 10       | M8 connector plug |
| ML300-8-H-200-RT/25/98/102     | With background suppression | 200                  | Red LED      | Potentiometer      | NPN           | 10       | M8 connector plug |
| ML300-8-H-200-RT/25/98/103     | With background suppression | 200                  | Red LED      | Potentiometer      | PNP           | 10       | M8 connector plug |
| ML300-8-600-RT/59/98/103       | Energetic                   | 600                  | Red LED      | Potentiometer      | PNP           | 10       | M8 connector plug |
| ML300-8-600-RT/25/102/115      | Energetic                   | 600                  | Red LED      | Potentiometer      | NPN           | 10       | Fixed cable       |
| ML300-8-600-RT/25/103/115      | Energetic                   | 600                  | Red LED      | Potentiometer      | PNP           | 10       | Fixed cable       |
| ML300-8-600-RT/25/98/102       | Energetic                   | 600                  | Red LED      | Potentiometer      | NPN           | 10       | M8 connector plug |
| ML300-8-600-RT/25/98/103       | Energetic                   | 600                  | Red LED      | Potentiometer      | PNP           | 10       | M8 connector plug |
| ML300-8-600-RT/59/102/115      | Energetic                   | 600                  | Red LED      | Potentiometer      | NPN           | 10       | Fixed cable       |
| ML300-8-600-RT/59/103/115      | Energetic                   | 600                  | Red LED      | Potentiometer      | PNP           | 10       | Fixed cable       |
| ML300-8-600-RT/59/98/102       | Energetic                   | 600                  | Red LED      | Potentiometer      | NPN           | 10       | M8 connector plug |
| ML300-8-1200-IR/25/115/120     | Energetic                   | 1200                 | Infrared LED | Potentiometer      | PNP           | 10       | Fixed cable       |
| ML300-8-1200-IR/25/115/127     | Energetic                   | 1200                 | Infrared LED | Potentiometer      | NPN           | 10       | Fixed cable       |
| ML300-8-1200-IR/25/82d/103/115 | Energetic                   | 1200                 | Infrared LED | Potentiometer      | PNP           | 10       | Fixed cable       |
| ML300-8-1200-IR/25/82d/95/103  | Energetic                   | 1200                 | Infrared LED | Potentiometer      | PNP           | 10       | M8 connector plug |
| ML300-8-1200-IR/25/95/120      | Energetic                   | 1200                 | Infrared LED | Potentiometer      | PNP           | 10       | M8 connector plug |
| ML300-8-1200-IR/25/95/127      | Energetic                   | 1200                 | Infrared LED | Potentiometer      | NPN           | 10       | M8 connector plug |



### Accessories

|               |   |
|---------------|---|
| OMH-ML300-01  | Mounting bracket                                  |
| OMH-ML300-02  | Mounting bracket on 35 mm DIN mounting rail       |
| V3-GM-2M-PVC  | Single-ended female cordset, M8, 3-pin, PVC cable |
| V3-WM-2M-PUR  | Single-ended female cordset, M8, 3-pin, PUR cable |
| V3-WM-2M-PVC  | Single-ended female cordset, M8, 3-pin, PVC cable |
| V31-WM-2M-PUR | Single-ended female cordset, M8, 4-pin, PUR cable |
| V31-WM-2M-PVC | Single-ended female cordset, M8, 4-pin, PVC cable |

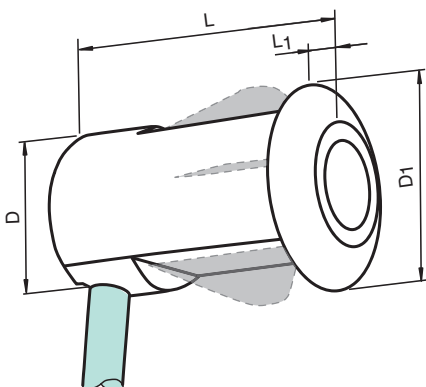
# BB10 Series



| Standard Technical Data |                  |
|-------------------------|------------------|
| Function principle      | Thru-beam sensor |
| Light type              | Infrared LED     |
| Voltage type            | DC               |
| Operating voltage (min) | 10 V             |
| Operating voltage (max) | 30 V             |
| Housing length L        | 22 mm            |
| Housing diameter D      | 12.5 mm          |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number                  | Detection range [mm] | Output type | Connection type           | E1 type approval |
|-------------------------------|----------------------|-------------|---------------------------|------------------|
| BB10-P-F1/25/33/35/102/115-7m | 3000                 | NPN         | Fixed cable               | ■                |
| BB10-P-F1/25/33/35/103/115-7m | 3000                 | PNP         | Fixed cable               | ■                |
| BB10-P-F1/33/35/59/102/115-7m | 3000                 | NPN         | Fixed cable               | ■                |
| BB10-P-F1/33/35/59/103/115-7m | 3000                 | PNP         | Fixed cable               | ■                |
| BB10-P-F2/25/33/35/102/115-7m | 3000                 | NPN         | Fixed cable               | ■                |
| BB10-P-F2/25/33/35/103/115-7m | 3000                 | PNP         | Fixed cable               | ■                |
| BB10-P-F2/33/35/59/102/115-7m | 3000                 | NPN         | Fixed cable               | ■                |
| BB10-P-F2/33/35/59/103/115-7m | 3000                 | PNP         | Fixed cable               | ■                |
| BB10-P/25/33/76b/102/115-7m   | 6000                 | NPN         | Fixed cable               | ■                |
| BB10-P/25/33/76b/102/115e     | 6000                 | NPN         | Fixed cable with JST plug | ■                |
| BB10-P/25/33/76b/103/115-10m  | 6000                 | PNP         | Fixed cable               | ■                |
| BB10-P/25/33/76b/103/115-7m   | 6000                 | PNP         | Fixed cable               | ■                |
| BB10-P/25/33/76b/103/115a     | 6000                 | PNP         | Fixed cable with M8 plug  | ■                |
| BB10-P/25/33/76b/103/115e     | 6000                 | PNP         | Fixed cable with JST plug | ■                |
| BB10-P/33/59/76b/102/115-7m   | 6000                 | NPN         | Fixed cable               | ■                |
| BB10-P/33/59/76b/103/115-7m   | 6000                 | PNP         | Fixed cable               | ■                |



# GLV18 Series Thru-Beam Sensors

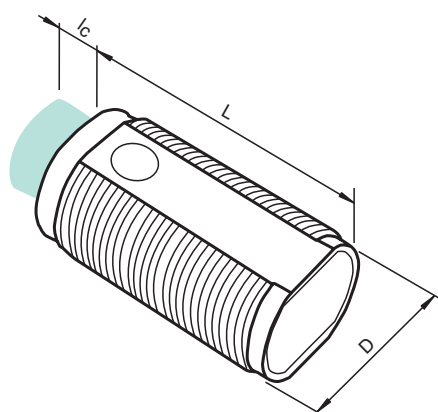


### Standard Technical Data

|                           |                  |
|---------------------------|------------------|
| <b>Function principle</b> | Thru-beam sensor |
| <b>Light type</b>         | Red LED          |
| <b>Housing diameter D</b> | 18 mm            |
| <b>UL</b>                 | ■                |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number             | Detection range [mm] | Output type | Voltage type | UB (min) | UB (max) | Connection type         | Length L | CCC | EAC |
|--------------------------|----------------------|-------------|--------------|----------|----------|-------------------------|----------|-----|-----|
| GA18-S/GK18-S/25/115/161 | 12000                | N-MOSFET    | AC/DC        | 20       | 250      | Fixed cable             | 69       | ■   | ■   |
| GA18-S/GK18-S/59/115/161 | 12000                | N-MOSFET    | AC/DC        | 20       | 250      | Fixed cable             | 69       | ■   | ■   |
| GA18-S/GK18-S/59/161/166 | 12000                | N-MOSFET    | AC/DC        | 20       | 250      | Micro AC connector plug | 73       | ■   | ■   |
| GD18-S/GV18-S/115/120    | 12000                | PNP         | DC           | 10       | 30       | Fixed cable             | 39.8     |     |     |
| GD18-S/GV18-S/25/102/115 | 12000                | NPN         | DC           | 10       | 30       | Fixed cable             | 39.8     |     |     |
| GD18-S/GV18-S/59/102/115 | 12000                | NPN         | DC           | 10       | 30       | Fixed cable             | 39.8     |     |     |
| GD18-S/GV18-S/59/102/159 | 12000                | NPN         | DC           | 10       | 30       | M12 connector plug      | 43.9     |     |     |
| GD18-S/GV18-S/73/120     | 12000                | PNP         | DC           | 10       | 30       | M12 connector plug      | 43.9     |     |     |
| GA18/GK18/25/115/161     | 20000                | N-MOSFET    | AC/DC        | 20       | 250      | Fixed cable             | 56       | ■   | ■   |
| GA18/GK18/25/161/166     | 20000                | N-MOSFET    | AC/DC        | 20       | 250      | Micro AC connector plug | 60       | ■   | ■   |
| GA18/GK18/59/115/161     | 20000                | N-MOSFET    | AC/DC        | 20       | 250      | Fixed cable             | 56       | ■   | ■   |
| GA18/GK18/59/161/166     | 20000                | N-MOSFET    | AC/DC        | 20       | 250      | Micro AC connector plug | 60       | ■   | ■   |
| GD18/GV18/115/120        | 20000                | PNP         | DC           | 10       | 30       | Fixed cable             | 39.8     |     |     |
| GD18/GV18/25/102/115     | 20000                | NPN         | DC           | 10       | 30       | Fixed cable             | 39.8     |     |     |
| GD18/GV18/25/102/159     | 20000                | NPN         | DC           | 10       | 30       | M12 connector plug      | 43.9     |     |     |
| GD18/GV18/25/103/115     | 20000                | PNP         | DC           | 10       | 30       | Fixed cable             | 39.8     |     |     |
| GD18/GV18/25/103/159     | 20000                | PNP         | DC           | 10       | 30       | M12 connector plug      | 43.9     |     |     |
| GD18/GV18/59/102/115     | 20000                | NPN         | DC           | 10       | 30       | Fixed cable             | 39.8     |     |     |
| GD18/GV18/59/102/159     | 20000                | NPN         | DC           | 10       | 30       | M12 connector plug      | 43.9     |     |     |
| GD18/GV18/73/120         | 20000                | PNP         | DC           | 10       | 30       | M12 connector plug      | 43.9     |     |     |



### Accessories

|                 |  |
|-----------------|--|
| <b>BF 18</b>    | Mounting adapter, 18 mm  |
| <b>BF 18-F</b>  | Plastic mounting adapter, 18 mm  |
| <b>BF 5-30</b>  | Universal mounting bracket for cylindrical sensors with a diameter of 5 mm ... 30 mm |
| <b>CPZ18B03</b> | Mounting aid with swivel nut   |





# GLV18 Series Retroreflective Sensors



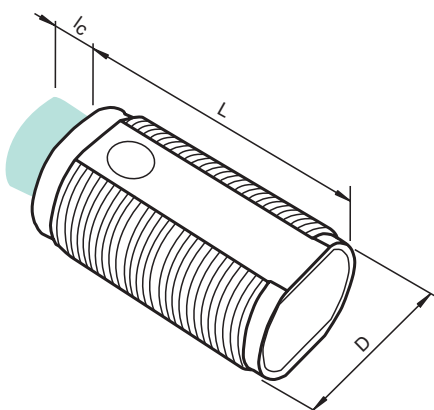
| Standard Technical Data |         |
|-------------------------|---------|
| Light type              | Red LED |
| Housing diameter D      | 18 mm   |
| UL                      | ■       |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number               | Function principle          | Detection range [mm] | Output type | Voltage type | UB (min) | UB (max) | Connection type           | Length L | CCC | EAC |
|----------------------------|-----------------------------|----------------------|-------------|--------------|----------|----------|---------------------------|----------|-----|-----|
| GLV18-55-G/115/120         | With polarization filter    | 2500                 | PNP         | DC           | 10       | 30       | Fixed cable               | 39.8     |     |     |
| GLV18-55-G/25/102/115      | With polarization filter    | 2500                 | NPN         | DC           | 10       | 30       | Fixed cable               | 39.8     |     |     |
| GLV18-55-G/25/102/159      | With polarization filter    | 2500                 | NPN         | DC           | 10       | 30       | M12 connector plug        | 43.9     |     |     |
| GLV18-55-G/59/102/115      | With polarization filter    | 2500                 | NPN         | DC           | 10       | 30       | Fixed cable               | 39.8     |     |     |
| GLV18-55-G/59/102/159      | With polarization filter    | 2500                 | NPN         | DC           | 10       | 30       | M12 connector plug        | 43.9     |     |     |
| GLV18-55-G/73/120          | With polarization filter    | 2500                 | PNP         | DC           | 10       | 30       | M12 connector plug        | 43.9     |     |     |
| GLK18-55-S/25/115/161      | With polarization filter    | 3500                 | N-MOSFET    | AC/DC        | 20       | 250      | Fixed cable               | 69       | ■   | ■   |
| GLK18-55-S/25/161/166      | With polarization filter    | 3500                 | N-MOSFET    | AC/DC        | 20       | 250      | Micro AC connector plug   | 73       | ■   | ■   |
| GLK18-55-S/59/115/161      | With polarization filter    | 3500                 | N-MOSFET    | AC/DC        | 20       | 250      | Fixed cable               | 69       | ■   | ■   |
| GLK18-55-S/59/161/166      | With polarization filter    | 3500                 | N-MOSFET    | AC/DC        | 20       | 250      | Micro AC connector plug   | 73       | ■   | ■   |
| GLK18-55/25/115/161        | With polarization filter    | 4000                 | N-MOSFET    | AC/DC        | 20       | 250      | Fixed cable               | 56       | ■   | ■   |
| GLK18-55/25/161/166        | With polarization filter    | 4000                 | N-MOSFET    | AC/DC        | 20       | 250      | Micro AC connector plug   | 60       | ■   | ■   |
| GLK18-55/59/115/161        | With polarization filter    | 4000                 | N-MOSFET    | AC/DC        | 20       | 250      | Fixed cable               | 56       | ■   | ■   |
| GLK18-55/59/161/166        | With polarization filter    | 4000                 | N-MOSFET    | AC/DC        | 20       | 250      | Micro AC connector plug   | 60       | ■   | ■   |
| GLK18-6-S/25/115/161       | Without polarization filter | 5500                 | N-MOSFET    | AC/DC        | 20       | 250      | Fixed cable               | 69       | ■   | ■   |
| GLK18-6-S/25/161/166       | Without polarization filter | 5500                 | N-MOSFET    | AC/DC        | 20       | 250      | Micro AC connector plug   | 73       | ■   | ■   |
| GLK18-6-S/59/115/161       | Without polarization filter | 5500                 | N-MOSFET    | AC/DC        | 20       | 250      | Fixed cable               | 69       | ■   | ■   |
| GLK18-6-S/59/161/166       | Without polarization filter | 5500                 | N-MOSFET    | AC/DC        | 20       | 250      | Micro AC connector plug   | 73       | ■   | ■   |
| GLK18-6/25/115/161         | Without polarization filter | 6500                 | N-MOSFET    | AC/DC        | 20       | 250      | Fixed cable               | 60       | ■   | ■   |
| GLK18-6/25/161/166         | Without polarization filter | 6500                 | N-MOSFET    | AC/DC        | 20       | 250      | Micro AC connector plug   | 60       | ■   | ■   |
| GLK18-6/59/115/161         | Without polarization filter | 6500                 | N-MOSFET    | AC/DC        | 20       | 250      | Fixed cable               | 60       | ■   | ■   |
| GLK18-6/59/161/166         | Without polarization filter | 6500                 | N-MOSFET    | AC/DC        | 20       | 250      | Micro AC connector plug   | 60       | ■   | ■   |
| GLV18-55-S/115/120         | With polarization filter    | 3500                 | PNP         | DC           | 10       | 30       | Fixed cable               | 39.8     |     |     |
| GLV18-55-S/25/102/115      | With polarization filter    | 3500                 | NPN         | DC           | 10       | 30       | Fixed cable               | 39.8     |     |     |
| GLV18-55-S/25/102/159      | With polarization filter    | 3500                 | NPN         | DC           | 10       | 30       | M12 connector plug        | 43.9     |     |     |
| GLV18-55-S/25/103/159      | With polarization filter    | 3500                 | PNP         | DC           | 10       | 30       | M12 connector plug        | 43.9     |     |     |
| GLV18-55-S/59/102/115      | With polarization filter    | 3500                 | NPN         | DC           | 10       | 30       | Fixed cable               | 39.8     |     |     |
| GLV18-55-S/59/102/159      | With polarization filter    | 3500                 | NPN         | DC           | 10       | 30       | M12 connector plug        | 43.9     |     |     |
| GLV18-55-S/73/120          | With polarization filter    | 3500                 | PNP         | DC           | 10       | 30       | M12 connector plug        | 43.9     |     |     |
| GLV18-55/115/120           | With polarization filter    | 4000                 | PNP         | DC           | 10       | 30       | Fixed cable               | 39.8     |     |     |
| GLV18-55/115b/120          | With polarization filter    | 4000                 | PNP         | DC           | 10       | 30       | Fixed cable with M12 plug | 39.8     |     |     |
| GLV18-55/25/102/115        | With polarization filter    | 4000                 | NPN         | DC           | 10       | 30       | Fixed cable               | 39.8     |     |     |
| GLV18-55/25/102/159        | With polarization filter    | 4000                 | NPN         | DC           | 10       | 30       | M12 connector plug        | 43.9     |     |     |
| GLV18-55/25/103/115        | With polarization filter    | 4000                 | PNP         | DC           | 10       | 30       | Fixed cable               | 39.8     |     |     |
| GLV18-55/25/103/159        | With polarization filter    | 4000                 | PNP         | DC           | 10       | 30       | M12 connector plug        | 43.9     |     |     |
| GLV18-55/33/115/120 C=3,5m | With polarization filter    | 4000                 | PNP         | DC           | 10       | 30       | Fixed cable               | 39.8     |     |     |
| GLV18-55/59/102/115        | With polarization filter    | 4000                 | NPN         | DC           | 10       | 30       | Fixed cable               | 39.8     |     |     |
| GLV18-55/59/102/159        | With polarization filter    | 4000                 | NPN         | DC           | 10       | 30       | M12 connector plug        | 43.9     |     |     |
| GLV18-55/59/103/159        | With polarization filter    | 4000                 | PNP         | DC           | 10       | 30       | M12 connector plug        | 43.9     |     |     |
| GLV18-55/73/120            | With polarization filter    | 4000                 | PNP         | DC           | 10       | 30       | M12 connector plug        | 43.9     |     |     |



| Model number         | Function principle          | Detection range [mm] | Output type | Voltage type | UB (min) | UB (max) | Connection type    | Length L | CCC | EAC |
|----------------------|-----------------------------|----------------------|-------------|--------------|----------|----------|--------------------|----------|-----|-----|
| GLV18-6-S/115/120    | Without polarization filter | 5500                 | PNP         | DC           | 10       | 30       | Fixed cable        | 39.8     |     |     |
| GLV18-6-S/25/102/115 | Without polarization filter | 5500                 | NPN         | DC           | 10       | 30       | Fixed cable        | 39.8     |     |     |
| GLV18-6-S/59/102/115 | Without polarization filter | 5500                 | NPN         | DC           | 10       | 30       | Fixed cable        | 39.8     |     |     |
| GLV18-6-S/59/102/159 | Without polarization filter | 5500                 | NPN         | DC           | 10       | 30       | M12 connector plug | 43.9     |     |     |
| GLV18-6-S/73/120     | Without polarization filter | 5500                 | PNP         | DC           | 10       | 30       | M12 connector plug | 43.9     |     |     |
| GLV18-6/115/120      | Without polarization filter | 6500                 | PNP         | DC           | 10       | 30       | Fixed cable        | 39.8     |     |     |
| GLV18-6/25/102/115   | Without polarization filter | 6500                 | NPN         | DC           | 10       | 30       | Fixed cable        | 39.8     |     |     |
| GLV18-6/25/102/159   | Without polarization filter | 6500                 | NPN         | DC           | 10       | 30       | M12 connector plug | 43.9     |     |     |
| GLV18-6/25/103/115   | Without polarization filter | 6500                 | PNP         | DC           | 10       | 30       | Fixed cable        | 39.8     |     |     |
| GLV18-6/25/103/159   | Without polarization filter | 6500                 | PNP         | DC           | 10       | 30       | M12 connector plug | 43.9     |     |     |
| GLV18-6/59/102/115   | Without polarization filter | 6500                 | NPN         | DC           | 10       | 30       | Fixed cable        | 39.8     |     |     |
| GLV18-6/59/102/159   | Without polarization filter | 6500                 | NPN         | DC           | 10       | 30       | M12 connector plug | 43.9     |     |     |
| GLV18-6/73/120       | Without polarization filter | 6500                 | PNP         | DC           | 10       | 30       | M12 connector plug | 43.9     |     | ■   |



| Accessories  |  |
|--------------|--|
| BF 18        | Mounting adapter, 18 mm  |
| BF 18-F      | Plastic mounting adapter, 18 mm  |
| BF 5-30      | Universal mounting bracket for cylindrical sensors with a diameter of 5 mm ... 30 mm |
| CPZ18B03     | Mounting aid with swivel nut   |
| REF-C110-2   | Round reflector $\varnothing$ 84 mm, mounting hole in center                         |
| REF-H50      | Rectangular reflector, 51 mm x 61 mm, mounting holes, retaining tab                  |
| V1-G-2M-PUR  | Single-ended female cordset, M12, 4-pin, PUR cable                                   |
| V1-W-2M-PUR  | Single-ended female cordset, M12, 4-pin, PUR cable                                   |
| V11-G-2M-PUR | Single-ended female cordset, M12, 3-pin, PUR cable                                   |

# GLV18 Series Diffuse Mode Sensors

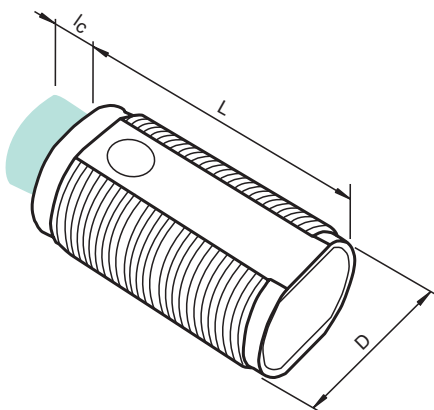


| Standard Technical Data |               |
|-------------------------|---------------|
| Operating elements      | Potentiometer |
| Housing diameter D      | 18 mm         |
| UL                      | ■             |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number                   | Function principle          | Detection range [mm] | Light type | Output type | Voltage type | UB (min) | UB (max) | Connection type         | Length L | CCC | EAC |
|--------------------------------|-----------------------------|----------------------|------------|-------------|--------------|----------|----------|-------------------------|----------|-----|-----|
| GLV18-8-H-120/73/120           | With background suppression | 120                  | Red LED    | PNP         | DC           | 10       | 30       | M12 connector plug      | 43.9     |     |     |
| GLV18-8-H-120/115/120          | With background suppression | 120                  | Red LED    | PNP         | DC           | 10       | 30       | Fixed cable             | 39.8     |     |     |
| GLV18-8-H-120/25/102/115       | With background suppression | 120                  | Red LED    | NPN         | DC           | 10       | 30       | Fixed cable             | 39.8     |     |     |
| GLV18-8-H-120/25/102/159       | With background suppression | 120                  | Red LED    | NPN         | DC           | 10       | 30       | M12 connector plug      | 43.9     |     |     |
| GLV18-8-H-120/59/102/115       | With background suppression | 120                  | Red LED    | NPN         | DC           | 10       | 30       | Fixed cable             | 39.8     |     |     |
| GLV18-8-H-120/59/102/159       | With background suppression | 120                  | Red LED    | NPN         | DC           | 10       | 30       | M12 connector plug      | 43.9     |     |     |
| GLK18-8-200-S/25/115/161       | Energetic                   | 200                  | Red LED    | N-MOSFET    | AC/DC        | 20       | 250      | Fixed cable             | 69       | ■   | ■   |
| GLK18-8-200-S/25/161/166       | Energetic                   | 200                  | Red LED    | N-MOSFET    | AC/DC        | 20       | 250      | Micro AC connector plug | 73       | ■   | ■   |
| GLK18-8-200-S/59/115/161       | Energetic                   | 200                  | Red LED    | N-MOSFET    | AC/DC        | 20       | 250      | Fixed cable             | 69       | ■   | ■   |
| GLK18-8-200/25/115/161         | Energetic                   | 200                  | Red LED    | N-MOSFET    | AC/DC        | 20       | 250      | Fixed cable             | 56       | ■   | ■   |
| GLK18-8-200/25/161/166         | Energetic                   | 200                  | Red LED    | N-MOSFET    | AC/DC        | 20       | 250      | Micro AC connector plug | 60       | ■   | ■   |
| GLK18-8-200/59/115/161         | Energetic                   | 200                  | Red LED    | N-MOSFET    | AC/DC        | 20       | 250      | Fixed cable             | 56       | ■   | ■   |
| GLK18-8-200/59/161/166         | Energetic                   | 200                  | Red LED    | N-MOSFET    | AC/DC        | 20       | 250      | Micro AC connector plug | 60       | ■   | ■   |
| GLK18-8-400-S/25/115/161       | Energetic                   | 400                  | Red LED    | N-MOSFET    | AC/DC        | 20       | 250      | Fixed cable             | 69       | ■   | ■   |
| GLK18-8-400-S/25/161/166       | Energetic                   | 400                  | Red LED    | N-MOSFET    | AC/DC        | 20       | 250      | Micro AC connector plug | 73       | ■   | ■   |
| GLK18-8-450/25/115/161         | Energetic                   | 450                  | Red LED    | N-MOSFET    | AC/DC        | 20       | 250      | Fixed cable             | 56       | ■   | ■   |
| GLK18-8-450/25/161/166         | Energetic                   | 450                  | Red LED    | N-MOSFET    | AC/DC        | 20       | 250      | Micro AC connector plug | 60       | ■   | ■   |
| GLK18-8-450/59/115/161         | Energetic                   | 450                  | Red LED    | N-MOSFET    | AC/DC        | 20       | 250      | Fixed cable             | 56       | ■   | ■   |
| GLK18-8-450/59/161/166         | Energetic                   | 450                  | Red LED    | N-MOSFET    | AC/DC        | 20       | 250      | Micro AC connector plug | 60       | ■   | ■   |
| GLV18-8-200-S/115/120          | Energetic                   | 200                  | Red LED    | PNP         | DC           | 10       | 30       | Fixed cable             | 53.2     |     |     |
| GLV18-8-200-S/25/102/115       | Energetic                   | 200                  | Red LED    | NPN         | DC           | 10       | 30       | Fixed cable             | 53.2     |     |     |
| GLV18-8-200-S/25/102/159       | Energetic                   | 200                  | Red LED    | NPN         | DC           | 10       | 30       | M12 connector plug      | 57.3     |     |     |
| GLV18-8-200-S/73/120           | Energetic                   | 200                  | Red LED    | PNP         | DC           | 10       | 30       | M12 connector plug      | 57.3     |     |     |
| GLV18-8-200/115/120            | Energetic                   | 200                  | Red LED    | PNP         | DC           | 10       | 30       | Fixed cable             | 39.8     |     |     |
| GLV18-8-200/25/102/115         | Energetic                   | 200                  | Red LED    | NPN         | DC           | 10       | 30       | Fixed cable             | 39.8     |     |     |
| GLV18-8-200/25/102/159         | Energetic                   | 200                  | Red LED    | NPN         | DC           | 10       | 30       | M12 connector plug      | 43.9     |     |     |
| GLV18-8-200/25/33/102/115 K=5m | Energetic                   | 200                  | Red LED    | NPN         | DC           | 10       | 30       | Fixed cable             | 39.8     |     |     |
| GLV18-8-200/33/115/120 C=5m    | Energetic                   | 200                  | Red LED    | PNP         | DC           | 10       | 30       | Fixed cable             | 39.8     |     |     |
| GLV18-8-200/59/102/115         | Energetic                   | 200                  | Red LED    | NPN         | DC           | 10       | 30       | Fixed cable             | 39.8     |     |     |
| GLV18-8-200/59/103/115         | Energetic                   | 200                  | Red LED    | PNP         | DC           | 10       | 30       | Fixed cable             | 39.8     |     |     |
| GLV18-8-200/59/103/159         | Energetic                   | 200                  | Red LED    | PNP         | DC           | 10       | 30       | M12 connector plug      | 43.9     |     |     |
| GLV18-8-200/73/120             | Energetic                   | 200                  | Red LED    | PNP         | DC           | 10       | 30       | M12 connector plug      | 43.9     |     |     |
| GLV18-8-400-S/115/120          | Energetic                   | 400                  | Red LED    | PNP         | DC           | 10       | 30       | Fixed cable             | 53.2     |     |     |
| GLV18-8-400-S/25/102/115       | Energetic                   | 400                  | Red LED    | NPN         | DC           | 10       | 30       | Fixed cable             | 53.2     |     |     |
| GLV18-8-400-S/25/102/159       | Energetic                   | 400                  | Red LED    | NPN         | DC           | 10       | 30       | M12 connector plug      | 57.3     |     |     |
| GLV18-8-400-S/59/102/159       | Energetic                   | 400                  | Red LED    | NPN         | DC           | 10       | 30       | M12 connector plug      | 57.3     |     |     |
| GLV18-8-400-S/73/120           | Energetic                   | 400                  | Red LED    | PNP         | DC           | 10       | 30       | M12 connector plug      | 57.3     |     |     |
| GLV18-8-450/115/120            | Energetic                   | 450                  | Red LED    | PNP         | DC           | 10       | 30       | Fixed cable             | 39.8     |     |     |

| Model number              | Function principle | Detection range [mm] | Light type   | Output type | Voltage type | UB (min) | UB (max) | Connection type    | Length L | CCC | EAC |
|---------------------------|--------------------|----------------------|--------------|-------------|--------------|----------|----------|--------------------|----------|-----|-----|
| GLV18-8-450/25/102/115    | Energetic          | 450                  | Red LED      | NPN         | DC           | 10       | 30       | Fixed cable        | 39.8     |     |     |
| GLV18-8-450/25/102/159    | Energetic          | 450                  | Red LED      | NPN         | DC           | 10       | 30       | M12 connector plug | 43.9     |     |     |
| GLV18-8-450/59/102/115    | Energetic          | 450                  | Red LED      | NPN         | DC           | 10       | 30       | Fixed cable        | 39.8     |     |     |
| GLV18-8-450/59/102/159    | Energetic          | 450                  | Red LED      | NPN         | DC           | 10       | 30       | M12 connector plug | 43.9     |     |     |
| GLV18-8-450/59/103/115    | Energetic          | 450                  | Red LED      | PNP         | DC           | 10       | 30       | Fixed cable        | 39.8     |     |     |
| GLV18-8-450/59/103/159    | Energetic          | 450                  | Red LED      | PNP         | DC           | 10       | 30       | M12 connector plug | 43.9     |     |     |
| GLV18-8-450/73/120        | Energetic          | 450                  | Red LED      | PNP         | DC           | 10       | 30       | M12 connector plug | 43.9     |     | ■   |
| GLV18-8-600-IR/115/120    | Energetic          | 600                  | Infrared LED | PNP         | DC           | 10       | 30       | Fixed cable        | 39.8     |     |     |
| GLV18-8-600-IR/25/102/115 | Energetic          | 600                  | Infrared LED | NPN         | DC           | 10       | 30       | Fixed cable        | 39.8     |     |     |
| GLV18-8-600-IR/25/102/159 | Energetic          | 600                  | Infrared LED | NPN         | DC           | 10       | 30       | M12 connector plug | 43.9     |     |     |
| GLV18-8-600-IR/73/120     | Energetic          | 600                  | Infrared LED | PNP         | DC           | 10       | 30       | M12 connector plug | 43.9     |     |     |



| Accessories  |  |
|--------------|--|
| BF 18        | Mounting adapter, 18 mm  |
| BF 18-F      | Plastic mounting adapter, 18 mm  |
| BF 5-30      | Universal mounting bracket for cylindrical sensors with a diameter of 5 mm ... 30 mm |
| CPZ18B03     | Mounting aid with swivel nut   |
| V1-G-2M-PUR  | Single-ended female cordset, M12, 4-pin, PUR cable                                   |
| V1-W-2M-PUR  | Single-ended female cordset, M12, 4-pin, PUR cable                                   |
| V11-G-2M-PUR | Single-ended female cordset, M12, 3-pin, PUR cable                                   |

# 12GM Series

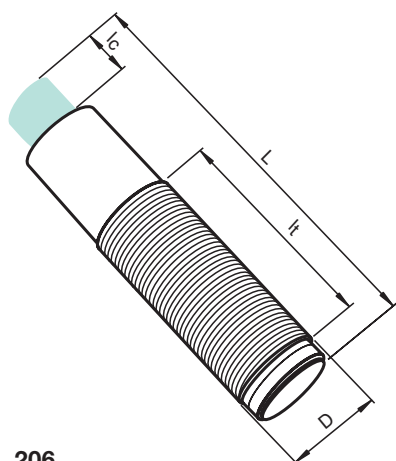


### Standard Technical Data

|                                |               |
|--------------------------------|---------------|
| <b>Light type</b>              | Red LED       |
| <b>Operating elements</b>      | Potentiometer |
| <b>Voltage type</b>            | DC            |
| <b>Operating voltage (min)</b> | 10 V          |
| <b>Operating voltage (max)</b> | 30 V          |
| <b>Housing diameter D</b>      | 12 mm         |
| <b>UL</b>                      | ■             |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number                 | Function principle                              | Detection range [mm] | Output type | Connection type    | Length L |
|------------------------------|---|----------------------|-------------|--------------------|----------|
| <b>OBD300-12GM40-E4</b>      | Diffuse mode sensor, energetic                  | 300                  | NPN         | Fixed cable        | 45       |
| <b>OBD300-12GM40-E4-V1</b>   | Diffuse mode sensor, energetic                  | 300                  | NPN         | M12 connector plug | 55       |
| <b>OBD300-12GM40-E5</b>      | Diffuse mode sensor, energetic                  | 300                  | PNP         | Fixed cable        | 45       |
| <b>OBD300-12GM40-E5-V1</b>   | Diffuse mode sensor, energetic                  | 300                  | PNP         | M12 connector plug | 55       |
| <b>OBR2500-12GM40-E5-V1</b>  | Retroreflective sensor with polarization filter | 2500                 | PNP         | M12 connector plug | 55       |
| <b>OBR2500-12GM40-E4</b>     | Retroreflective sensor with polarization filter | 2500                 | NPN         | Fixed cable        | 45       |
| <b>OBR2500-12GM40-E4-V1</b>  | Retroreflective sensor with polarization filter | 2500                 | NPN         | M12 connector plug | 55       |
| <b>OBR2500-12GM40-E5</b>     | Retroreflective sensor with polarization filter | 2500                 | PNP         | Fixed cable        | 45       |
| <b>OBE6000-12GM40-SE4</b>    | Thru-beam sensor                                | 6000                 | NPN         | Fixed cable        | 45       |
| <b>OBE6000-12GM40-SE4-V1</b> | Thru-beam sensor                                | 6000                 | NPN         | M12 connector plug | 55       |
| <b>OBE6000-12GM40-SE5</b>    | Thru-beam sensor                                | 6000                 | PNP         | Fixed cable        | 45       |
| <b>OBE6000-12GM40-SE5-V1</b> | Thru-beam sensor                                | 6000                 | PNP         | M12 connector plug | 55       |



### Accessories

|                    |  |
|--------------------|--|
| <b>BF 12</b>       | Mounting adapter, 12 mm  |
| <b>BF 12-F</b>     | Plastic mounting adapter, 12 mm  |
| <b>BF 5-30</b>     | Universal mounting bracket for cylindrical sensors with a diameter of 5 mm ... 30 mm |
| <b>REF-H50</b>     | Rectangular reflector, 51 mm x 61 mm, mounting holes, retaining tab                  |
| <b>REF-H85-2</b>   | Rectangular reflector, 84.5 mm x 84.5 mm, mounting holes                             |
| <b>REF-VR10</b>    | Rectangular reflector, 60 mm x 19 mm, mounting holes                                 |
| <b>V1-W-2M-PUR</b> | Single-ended female cordset, M12, 4-pin, PUR cable                                   |

# 18GM Series

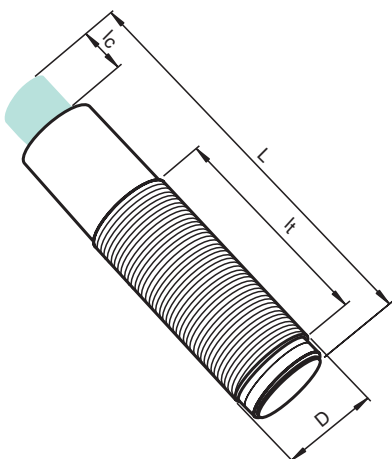


### Standard Technical Data

|                         |               |
|-------------------------|---------------|
| Operating elements      | Potentiometer |
| Voltage type            | DC            |
| Operating voltage (min) | 10 V          |
| Operating voltage (max) | 30 V          |
| Housing length L        | 60 mm         |
| Housing diameter D      | 18 mm         |
| UL                      | ■             |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number            | Function principle                              | Detection range [mm] | Light type   | Output type | Connection type    | EAC |
|-------------------------|---|----------------------|--------------|-------------|--------------------|-----|
| OBT200-18GM60-E4        | Diffuse mode sensor, energetic                  | 200                  | Infrared LED | NPN         | Fixed cable        |     |
| OBT200-18GM60-E4-V1     | Diffuse mode sensor, energetic                  | 200                  | Infrared LED | NPN         | M12 connector plug |     |
| OBT200-18GM60-E5        | Diffuse mode sensor, energetic                  | 200                  | Infrared LED | PNP         | Fixed cable        |     |
| OBT200-18GM60-E5-V1     | Diffuse mode sensor, energetic                  | 200                  | Infrared LED | PNP         | M12 connector plug |     |
| OBT500-18GM60-E4        | Diffuse mode sensor, energetic                  | 500                  | Infrared LED | NPN         | Fixed cable        |     |
| OBT500-18GM60-E4-V1     | Diffuse mode sensor, energetic                  | 500                  | Infrared LED | NPN         | M12 connector plug |     |
| OBT500-18GM60-E5        | Diffuse mode sensor, energetic                  | 500                  | Infrared LED | PNP         | Fixed cable        |     |
| OBT500-18GM60-E5-V1     | Diffuse mode sensor, energetic                  | 500                  | Infrared LED | PNP         | M12 connector plug | ■   |
| OBS4000-18GM60-E5-V1    | Retroreflective sensor with polarization filter | 4000                 | Red LED      | PNP         | M12 connector plug | ■   |
| OBS4000-18GM60-E4       | Retroreflective sensor with polarization filter | 4000                 | Red LED      | NPN         | Fixed cable        |     |
| OBS4000-18GM60-E4-V1    | Retroreflective sensor with polarization filter | 4000                 | Red LED      | NPN         | M12 connector plug |     |
| OBS4000-18GM60-E5       | Retroreflective sensor with polarization filter | 4000                 | Red LED      | PNP         | Fixed cable        |     |
| OBE10M-18GM60-RT-SE4    | Thru-beam sensor                                | 10000                | Red LED      | NPN         | Fixed cable        |     |
| OBE10M-18GM60-RT-SE4-V1 | Thru-beam sensor                                | 10000                | Red LED      | NPN         | M12 connector plug |     |
| OBE10M-18GM60-RT-SE5-V1 | Thru-beam sensor                                | 10000                | Red LED      | PNP         | M12 connector plug |     |
| OBE10M-18GM60-SE4       | Thru-beam sensor                                | 10000                | Infrared LED | NPN         | Fixed cable        |     |
| OBE10M-18GM60-SE4-V1    | Thru-beam sensor                                | 10000                | Infrared LED | NPN         | M12 connector plug |     |
| OBE10M-18GM60-SE5       | Thru-beam sensor                                | 10000                | Infrared LED | PNP         | Fixed cable        |     |
| OBE10M-18GM60-SE5-V1    | Thru-beam sensor                                | 10000                | Infrared LED | PNP         | M12 connector plug |     |



### Accessories

|             |  |
|-------------|--|
| BF 18       | Mounting adapter, 18 mm  |
| BF 18-F     | Plastic mounting adapter, 18 mm  |
| BF 5-30     | Universal mounting bracket for cylindrical sensors with a diameter of 5 mm ... 30 mm |
| CPZ18B03    | Mounting aid with swivel nut   |
| V1-G-2M-PUR | Single-ended female cordset, M12, 4-pin, PUR cable                                   |
| V1-W-2M-PUR | Single-ended female cordset, M12, 4-pin, PUR cable                                   |

# VL18 Series

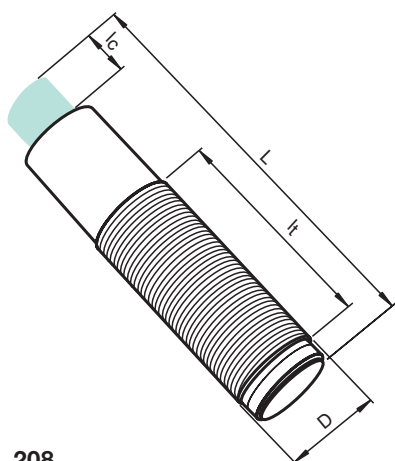


### Standard Technical Data

|                                |                    |
|--------------------------------|--------------------|
| <b>Voltage type</b>            | DC                 |
| <b>Operating voltage (min)</b> | 10 V               |
| <b>Operating voltage (max)</b> | 30 V               |
| <b>Connection type</b>         | M12 connector plug |
| <b>Housing diameter D</b>      | 18 mm              |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number                        | Function principle                               | Detection range [mm] | Light type      | Operating elements | Output type   | Length L | UL |
|-------------------------------------|--|----------------------|-----------------|--------------------|---------------|----------|----|
| VT18-8-H-120-M/40a/65b/118/128      | Triangulation sensor with background suppression | 120                  | Red LED         | Potentiometer      | 1 x push-pull | 65       | ■  |
| VT18-8-H-120-M/30/40a/65b/118       | Triangulation sensor with background suppression | 120                  | Red LED         | Potentiometer      | NPN           | 65       | ■  |
| VT18-8-H-120-M/32/40a/65b/118       | Triangulation sensor with background suppression | 120                  | Red LED         | Potentiometer      | PNP           | 65       | ■  |
| VT18-8-400-M/40a/118/128            | Diffuse mode sensor, energetic                   | 400                  | Red LED         | Potentiometer      | 1 x push-pull | 65       | ■  |
| VT18-8-400-M-LAS/30/40a/118         | Diffuse mode sensor, energetic                   | 400                  | Red laser diode | Potentiometer      | NPN           | 65       | ■  |
| VT18-8-400-M-LAS/32/40a/118         | Diffuse mode sensor, energetic                   | 400                  | Red laser diode | Potentiometer      | PNP           | 65       | ■  |
| VT18-8-400-M-LAS/40a/118/128        | Diffuse mode sensor, energetic                   | 400                  | Red laser diode | Potentiometer      | 1 x push-pull | 65       | ■  |
| VT18-8-400-M/30/40a/118             | Diffuse mode sensor, energetic                   | 400                  | Red LED         | Potentiometer      | NPN           | 65       | ■  |
| VT18-8-400-M/32/40a/118             | Diffuse mode sensor, energetic                   | 400                  | Red LED         | Potentiometer      | PNP           | 65       | ■  |
| VL18-54-MS/40a/118/128              | Retroreflective sensor with polarization filter  | 3500                 | Red LED         | Potentiometer      | 1 x push-pull | 65       | ■  |
| VL18-54-M/32/40a/82b/118            | Retroreflective sensor with polarization filter  | 3500                 | Red LED         | Potentiometer      | PNP           | 65       | ■  |
| VL18-54-M/40a/118/128               | Retroreflective sensor with polarization filter  | 3500                 | Red LED         | Potentiometer      | 1 x push-pull | 65       | ■  |
| VL18-54-MS/32/40a/82b/118           | Retroreflective sensor with polarization filter  | 3500                 | Red LED         | Potentiometer      | PNP           | 65       | ■  |
| E18-LAS/EV18-LAS/25/32/76a/92       | Thru-beam sensor                                 | 10000                | Red laser diode |                    | PNP           | 80       |    |
| E18/EV18-LAS/32/59/76a/92           | Thru-beam sensor                                 | 10000                | Red laser diode |                    | PNP           | 80       |    |
| VL18-54-M-LAS/30/40a/118/126b       | Retroreflective sensor with polarization filter  | 18000                | Red laser diode | Potentiometer      | NPN           | 65       | ■  |
| VL18-54-M-LAS/32/40a/82b/118        | Retroreflective sensor with polarization filter  | 18000                | Red laser diode | Potentiometer      | PNP           | 65       | ■  |
| VL18-54-M-LAS/40a/118/128           | Retroreflective sensor with polarization filter  | 18000                | Red laser diode | Potentiometer      | 1 x push-pull | 65       | ■  |
| VS18/VSE18-M-LAS/32/40a/76a/82b/118 | Thru-beam sensor                                 | 60000                | Red laser diode | Potentiometer      | PNP           | 65       | ■  |
| VS18/VSE18-M-LAS/40a/76a/118/128    | Thru-beam sensor                                 | 60000                | Red laser diode | Potentiometer      | 1 x push-pull | 65       | ■  |



### Accessories

|                    |  |
|--------------------|--|
| <b>BF 18</b>       | Mounting adapter, 18 mm  |
| <b>BF 18-F</b>     | Plastic mounting adapter, 18 mm  |
| <b>BF 5-30</b>     | Universal mounting bracket for cylindrical sensors with a diameter of 5 mm ... 30 mm |
| <b>OMH-VL18</b>    | Mounting aid with swivel nut   |
| <b>V1-G-2M-PUR</b> | Single-ended female cordset, M12, 4-pin, PUR cable                                   |
| <b>V1-W-2M-PUR</b> | Single-ended female cordset, M12, 4-pin, PUR cable                                   |





# Photoelectric Distance Sensors

## Intelligent Functionality for Incredible Precision

Extensive knowledge of engineering enables Pepperl+Fuchs to produce distance-based photoelectric sensors that use the innovative PRT (Pulse Ranging Technology) and MPT (Multi Pixel Technology) measuring principles. This integrated intelligence ensures the highest levels of precision and safety during object detection.



### 2-D LiDAR Sensors

The R2000 series 2-D laser scanners with 360° measuring angle achieve maximum power in the most compact housing design. The R2100 multi-ray LED scanner guarantees maximum robustness and cost efficiency. The optimized portfolio of 2-D LiDAR sensors from Pepperl+Fuchs thus offers solutions from basic to high-end applications.

#### Typical Applications

- Navigation of driverless transport systems
- Profile detection in robotics applications
- Collision avoidance in automated storage and retrieval systems or suspended conveyor systems
- Detection of overhangs, e.g., for pallets
- Highly precise monitoring of large areas

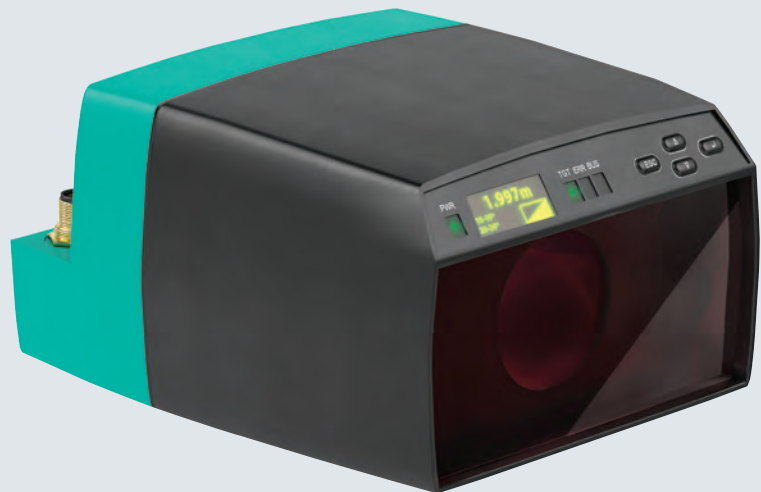
#### The Benefits of Selected 2-D LiDAR Sensors at a Glance

##### R2000 UHD 2-D laser scanner:

- Small light spot for detecting the smallest of objects and precise edge detection
- All-round visibility thanks to 360° measuring angle and up to 100 m detection range
- Optimized for quick measurement applications with a high scan rate of 100 Hz
- Highest angular resolution of 0.014° for highly precise navigation and positioning tasks

##### R2100 multi-ray LED scanner:

- LED measurement guarantees a long service life
- Ideal for mechanically demanding applications as there are no moving parts in the sensor
- 2-D measurement over 11 individual beams
- Large light spots tolerate different surface structures



### Pulse Ranging Technology (PRT) for Medium to Very Long Ranges

Equipped with the innovative Pulse ranging Technology (PRT), the distance sensors from Pepperl+Fuchs detect objects at distances from a few centimeters to several hundred meters with millimeter precision. Thanks to intelligent sensor electronics, PRT allows highly accurate, reliable, and clear measurements with high repeatability and fast response times, even with difficult environmental conditions and object properties. The VDM28 series offers stable production processes thanks to high immunity and resistance to environmental influences. It offers a wide range of applications thanks to the availability of switching and measuring sensors, including with IO-Link. The VDM100 distance measurement devices offer increased productivity with ultra-fast, continuous measurement and high reliability with a measuring range of up to 300 m and an accuracy of 0.5 mm.

#### Typical Applications

- Positioning of automated storage and retrieval systems, portal cranes, or moving carriages
- Level measurement
- Compartment occupied check in high-bay warehouses
- Stack height control
- Thickness measurement of coils

### Multi Pixel Technology (MPT) for Near-Range Applications

Multi Pixel Technology from Pepperl+Fuchs uses the proven triangulation principle for the precise measurement of distances to shorter distances. Target objects are clearly distinguished from the background, while adjustable operating modes allow interfering objects in the foreground or background to be reliably suppressed. No other technology provides greater reliability in object detection at short distances.

The R10x and R20x series offer an end-to-end solution of photoelectric functional principles and innovative technologies in an identical housing. Equipped with IO-Link, the series meet all the requirements of Sensorik4.0.

#### Typical Applications

- Well suited for simple and complex applications
- Detection of objects with changing object surface and structure
- Evaluation of multiple switching thresholds or switching windows
- Suitable for applications in highly fluctuating ambient conditions

# Distance Sensors

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# R100 Series



## Standard Technical Data

|                                |                            |
|--------------------------------|----------------------------|
| <b>Function principle</b>      | Distance sensor            |
| <b>Interface</b>               | IO-Link                    |
| <b>Operating elements</b>      | Potentiometer, push-button |
| <b>Voltage type</b>            | DC                         |
| <b>Operating voltage (min)</b> | 10 V                       |
| <b>Operating voltage (max)</b> | 30 V                       |
| <b>Housing length L</b>        | 21.5 mm                    |
| <b>Housing width W</b>         | 11 mm                      |
| <b>Housing height H</b>        | 44.5 mm                    |
| <b>UL</b>                      | ■                          |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number                  | Detection range [mm] | Light type      | Output type   | Connection type           |
|-------------------------------|----------------------|-----------------|---------------|---------------------------|
| OMT50-R100-2EP-IO             | 50                   | Red LED         | 2 x push-pull | Fixed cable               |
| OMT50-R100-2EP-IO-0,3M-V1     | 50                   | Red LED         | 2 x push-pull | Fixed cable with M12 plug |
| OMT50-R100-2EP-IO-0,3M-V1-L   | 50                   | Red laser diode | 2 x push-pull | Fixed cable with M12 plug |
| OMT50-R100-2EP-IO-0,3M-V31    | 50                   | Red LED         | 2 x push-pull | Fixed cable with M8 plug  |
| OMT50-R100-2EP-IO-0,3M-V31-L  | 50                   | Red laser diode | 2 x push-pull | Fixed cable with M8 plug  |
| OMT50-R100-2EP-IO-L           | 50                   | Red laser diode | 2 x push-pull | Fixed cable               |
| OMT50-R100-2EP-IO-V31         | 50                   | Red LED         | 2 x push-pull | M8 connector plug         |
| OMT50-R100-2EP-IO-V31-L       | 50                   | Red laser diode | 2 x push-pull | M8 connector plug         |
| OMT50-R100-EP-IO-0,3M-V3      | 50                   | Red LED         | 1 x push-pull | Fixed cable with M8 plug  |
| OMT50-R100-EP-IO-0,3M-V3-L    | 50                   | Red laser diode | 1 x push-pull | Fixed cable with M8 plug  |
| OMT50-R100-EP-IO-V3           | 50                   | Red LED         | 1 x push-pull | M8 connector plug         |
| OMT50-R100-EP-IO-V3-L         | 50                   | Red laser diode | 1 x push-pull | M8 connector plug         |
| OMT100-R100-2EP-IO            | 100                  | Red LED         | 2 x push-pull | Fixed cable               |
| OMT100-R100-2EP-IO-0,3M-V1    | 100                  | Red LED         | 2 x push-pull | Fixed cable with M12 plug |
| OMT100-R100-2EP-IO-0,3M-V1-L  | 100                  | Red laser diode | 2 x push-pull | Fixed cable with M12 plug |
| OMT100-R100-2EP-IO-0,3M-V31   | 100                  | Red LED         | 2 x push-pull | Fixed cable with M8 plug  |
| OMT100-R100-2EP-IO-0,3M-V31-L | 100                  | Red laser diode | 2 x push-pull | Fixed cable with M8 plug  |
| OMT100-R100-2EP-IO-L          | 100                  | Red laser diode | 2 x push-pull | Fixed cable               |
| OMT100-R100-2EP-IO-V31        | 100                  | Red LED         | 2 x push-pull | M8 connector plug         |
| OMT100-R100-2EP-IO-V31-L      | 100                  | Red laser diode | 2 x push-pull | M8 connector plug         |
| OMT100-R100-EP-IO-0,3M-V3     | 100                  | Red LED         | 1 x push-pull | Fixed cable with M8 plug  |
| OMT100-R100-EP-IO-0,3M-V3-L   | 100                  | Red laser diode | 1 x push-pull | Fixed cable with M8 plug  |
| OMT100-R100-EP-IO-V3          | 100                  | Red LED         | 1 x push-pull | M8 connector plug         |
| OMT100-R100-EP-IO-V3-L        | 100                  | Red laser diode | 1 x push-pull | M8 connector plug         |
| OMT150-R100-2EP-IO-0,3M-V1-L  | 150                  | Red laser diode | 2 x push-pull | Fixed cable with M12 plug |
| OMT150-R100-2EP-IO-0,3M-V31-L | 150                  | Red laser diode | 2 x push-pull | Fixed cable with M8 plug  |
| OMT150-R100-2EP-IO-L          | 150                  | Red laser diode | 2 x push-pull | Fixed cable               |
| OMT150-R100-2EP-IO-V31-L      | 150                  | Red laser diode | 2 x push-pull | M8 connector plug         |
| OMT150-R100-EP-IO-0,3M-V3-L   | 150                  | Red laser diode | 1 x push-pull | Fixed cable with M8 plug  |
| OMT150-R100-EP-IO-V3-L        | 150                  | Red laser diode | 1 x push-pull | M8 connector plug         |
| OMT200-R100-2EP-IO            | 200                  | Red LED         | 2 x push-pull | Fixed cable               |
| OMT200-R100-2EP-IO-0,3M-V1    | 200                  | Red LED         | 2 x push-pull | Fixed cable with M12 plug |
| OMT200-R100-2EP-IO-0,3M-V31   | 200                  | Red LED         | 2 x push-pull | Fixed cable with M8 plug  |
| OMT200-R100-2EP-IO-V31        | 200                  | Red LED         | 2 x push-pull | M8 connector plug         |
| OMT200-R100-EP-IO-0,3M-V3     | 200                  | Red LED         | 1 x push-pull | Fixed cable with M8 plug  |
| OMT200-R100-EP-IO-V3          | 200                  | Red LED         | 1 x push-pull | M8 connector plug         |

# R101 Series



## Standard Technical Data

|                                |                            |
|--------------------------------|----------------------------|
| <b>Function principle</b>      | Distance sensor            |
| <b>Interface</b>               | IO-Link                    |
| <b>Operating elements</b>      | Potentiometer, push-button |
| <b>Voltage type</b>            | DC                         |
| <b>Operating voltage (min)</b> | 10 V                       |
| <b>Operating voltage (max)</b> | 30 V                       |
| <b>Housing length L</b>        | 18.3 mm                    |
| <b>Housing width W</b>         | 13.9 mm                    |
| <b>Housing height H</b>        | 41.4 mm                    |
| <b>UL</b>                      | ■                          |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number                  | Detection range [mm] | Light type      | Output type   | Connection type           |
|-------------------------------|----------------------|-----------------|---------------|---------------------------|
| OMT50-R101-2EP-IO             | 50                   | Red LED         | 2 x push-pull | Fixed cable               |
| OMT50-R101-2EP-IO-0,3M-V1     | 50                   | Red LED         | 2 x push-pull | Fixed cable with M12 plug |
| OMT50-R101-2EP-IO-0,3M-V1-L   | 50                   | Red laser diode | 2 x push-pull | Fixed cable with M12 plug |
| OMT50-R101-2EP-IO-0,3M-V31    | 50                   | Red LED         | 2 x push-pull | Fixed cable with M8 plug  |
| OMT50-R101-2EP-IO-0,3M-V31-L  | 50                   | Red laser diode | 2 x push-pull | Fixed cable with M8 plug  |
| OMT50-R101-2EP-IO-L           | 50                   | Red laser diode | 2 x push-pull | Fixed cable               |
| OMT50-R101-2EP-IO-V31         | 50                   | Red LED         | 2 x push-pull | M8 connector plug         |
| OMT50-R101-2EP-IO-V31-L       | 50                   | Red laser diode | 2 x push-pull | M8 connector plug         |
| OMT50-R101-EP-IO-0,3M-V3      | 50                   | Red LED         | 1 x push-pull | Fixed cable with M8 plug  |
| OMT50-R101-EP-IO-0,3M-V3-L    | 50                   | Red laser diode | 1 x push-pull | Fixed cable with M8 plug  |
| OMT50-R101-EP-IO-V3           | 50                   | Red LED         | 1 x push-pull | M8 connector plug         |
| OMT50-R101-EP-IO-V3-L         | 50                   | Red laser diode | 1 x push-pull | M8 connector plug         |
| OMT100-R101-2EP-IO            | 100                  | Red LED         | 2 x push-pull | Fixed cable               |
| OMT100-R101-2EP-IO-0,3M-V1    | 100                  | Red LED         | 2 x push-pull | Fixed cable with M12 plug |
| OMT100-R101-2EP-IO-0,3M-V1-L  | 100                  | Red laser diode | 2 x push-pull | Fixed cable with M12 plug |
| OMT100-R101-2EP-IO-0,3M-V31   | 100                  | Red LED         | 2 x push-pull | Fixed cable with M8 plug  |
| OMT100-R101-2EP-IO-0,3M-V31-L | 100                  | Red laser diode | 2 x push-pull | Fixed cable with M8 plug  |
| OMT100-R101-2EP-IO-L          | 100                  | Red laser diode | 2 x push-pull | Fixed cable               |
| OMT100-R101-2EP-IO-V31        | 100                  | Red LED         | 2 x push-pull | M8 connector plug         |
| OMT100-R101-2EP-IO-V31-L      | 100                  | Red laser diode | 2 x push-pull | M8 connector plug         |
| OMT100-R101-EP-IO-0,3M-V3     | 100                  | Red LED         | 1 x push-pull | Fixed cable with M8 plug  |
| OMT100-R101-EP-IO-0,3M-V3-L   | 100                  | Red laser diode | 1 x push-pull | Fixed cable with M8 plug  |
| OMT100-R101-EP-IO-V3          | 100                  | Red LED         | 1 x push-pull | M8 connector plug         |
| OMT100-R101-EP-IO-V3-L        | 100                  | Red laser diode | 1 x push-pull | M8 connector plug         |
| OMT150-R101-2EP-IO-0,3M-V1-L  | 150                  | Red laser diode | 2 x push-pull | Fixed cable with M12 plug |
| OMT150-R101-2EP-IO-0,3M-V31-L | 150                  | Red laser diode | 2 x push-pull | Fixed cable with M8 plug  |
| OMT150-R101-2EP-IO-L          | 150                  | Red laser diode | 2 x push-pull | Fixed cable               |
| OMT150-R101-2EP-IO-V31-L      | 150                  | Red laser diode | 2 x push-pull | M8 connector plug         |
| OMT150-R101-EP-IO-0,3M-V3-L   | 150                  | Red laser diode | 1 x push-pull | Fixed cable with M8 plug  |
| OMT150-R101-EP-IO-V3-L        | 150                  | Red laser diode | 1 x push-pull | M8 connector plug         |
| OMT200-R101-2EP-IO            | 200                  | Red LED         | 2 x push-pull | Fixed cable               |
| OMT200-R101-2EP-IO-0,3M-V1    | 200                  | Red LED         | 2 x push-pull | Fixed cable with M12 plug |
| OMT200-R101-2EP-IO-0,3M-V31   | 200                  | Red LED         | 2 x push-pull | Fixed cable with M8 plug  |
| OMT200-R101-2EP-IO-V31        | 200                  | Red LED         | 2 x push-pull | M8 connector plug         |
| OMT200-R101-EP-IO-0,3M-V3     | 200                  | Red LED         | 1 x push-pull | Fixed cable with M8 plug  |
| OMT200-R101-EP-IO-V3          | 200                  | Red LED         | 1 x push-pull | M8 connector plug         |



# R103 Series

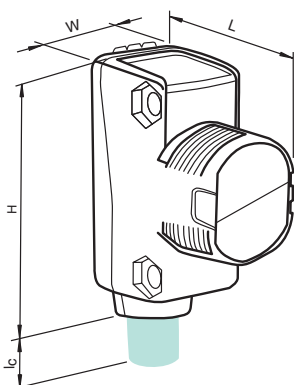


### Standard Technical Data

|                                |                            |
|--------------------------------|----------------------------|
| <b>Function principle</b>      | Distance sensor            |
| <b>Interface</b>               | IO-Link                    |
| <b>Operating elements</b>      | Potentiometer, push-button |
| <b>Voltage type</b>            | DC                         |
| <b>Operating voltage (min)</b> | 10 V                       |
| <b>Operating voltage (max)</b> | 30 V                       |
| <b>Housing length L</b>        | 26.7 mm                    |
| <b>Housing width W</b>         | 15 mm                      |
| <b>UL</b>                      | ■                          |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number                  | Detection range [mm] | Light type      | Output type   | Connection type           | Height H |
|-------------------------------|----------------------|-----------------|---------------|---------------------------|----------|
| OMT45-R103-EP-IO-V3-L         | 45                   | Red laser diode | 1 x push-pull | M8 connector plug         | 43.9     |
| OMT45-R103-2EP-IO             | 45                   | Red LED         | 2 x push-pull | Fixed cable               | 36.5     |
| OMT45-R103-2EP-IO-0,3M-V1     | 45                   | Red LED         | 2 x push-pull | Fixed cable with M12 plug | 36.5     |
| OMT45-R103-2EP-IO-0,3M-V1-L   | 45                   | Red laser diode | 2 x push-pull | Fixed cable with M12 plug | 36.5     |
| OMT45-R103-2EP-IO-0,3M-V31    | 45                   | Red LED         | 2 x push-pull | Fixed cable with M8 plug  | 36.5     |
| OMT45-R103-2EP-IO-0,3M-V31-L  | 45                   | Red laser diode | 2 x push-pull | Fixed cable with M8 plug  | 36.5     |
| OMT45-R103-2EP-IO-L           | 45                   | Red laser diode | 2 x push-pull | Fixed cable               | 36.5     |
| OMT45-R103-2EP-IO-V31         | 45                   | Red LED         | 2 x push-pull | M8 connector plug         | 43.9     |
| OMT45-R103-2EP-IO-V31-L       | 45                   | Red laser diode | 2 x push-pull | M8 connector plug         | 43.9     |
| OMT45-R103-EP-IO-0,3M-V3      | 45                   | Red LED         | 1 x push-pull | Fixed cable with M8 plug  | 36.5     |
| OMT45-R103-EP-IO-0,3M-V3-L    | 45                   | Red laser diode | 1 x push-pull | Fixed cable with M8 plug  | 36.5     |
| OMT45-R103-EP-IO-V3           | 45                   | Red LED         | 1 x push-pull | M8 connector plug         | 43.9     |
| OMT100-R103-2EP-IO            | 100                  | Red LED         | 2 x push-pull | Fixed cable               | 36.5     |
| OMT100-R103-2EP-IO-0,3M-V1    | 100                  | Red LED         | 2 x push-pull | Fixed cable with M12 plug | 36.5     |
| OMT100-R103-2EP-IO-0,3M-V31   | 100                  | Red LED         | 2 x push-pull | Fixed cable with M8 plug  | 36.5     |
| OMT100-R103-2EP-IO-V31        | 100                  | Red LED         | 2 x push-pull | M8 connector plug         | 43.9     |
| OMT100-R103-EP-IO-0,3M-V3     | 100                  | Red LED         | 1 x push-pull | Fixed cable with M8 plug  | 36.5     |
| OMT100-R103-EP-IO-V3          | 100                  | Red LED         | 1 x push-pull | M8 connector plug         | 43.9     |
| OMT120-R103-2EP-IO-0,3M-V1-L  | 120                  | Red laser diode | 2 x push-pull | Fixed cable with M12 plug | 36.5     |
| OMT120-R103-2EP-IO-0,3M-V31-L | 120                  | Red laser diode | 2 x push-pull | Fixed cable with M8 plug  | 36.5     |
| OMT120-R103-2EP-IO-L          | 120                  | Red laser diode | 2 x push-pull | Fixed cable               | 36.5     |
| OMT120-R103-2EP-IO-V31-L      | 120                  | Red laser diode | 2 x push-pull | M8 connector plug         | 43.9     |
| OMT120-R103-EP-IO-0,3M-V3-L   | 120                  | Red laser diode | 1 x push-pull | Fixed cable with M8 plug  | 36.5     |
| OMT120-R103-EP-IO-V3-L        | 120                  | Red laser diode | 1 x push-pull | M8 connector plug         | 43.9     |
| OMT150-R103-2EP-IO            | 150                  | Red LED         | 2 x push-pull | Fixed cable               | 36.5     |
| OMT150-R103-2EP-IO-0,3M-V1    | 150                  | Red LED         | 2 x push-pull | Fixed cable with M12 plug | 36.5     |
| OMT150-R103-2EP-IO-0,3M-V31   | 150                  | Red LED         | 2 x push-pull | Fixed cable with M8 plug  | 36.5     |
| OMT150-R103-2EP-IO-V31        | 150                  | Red LED         | 2 x push-pull | M8 connector plug         | 43.9     |
| OMT150-R103-EP-IO-0,3M-V3     | 150                  | Red LED         | 1 x push-pull | Fixed cable with M8 plug  | 36.5     |
| OMT150-R103-EP-IO-V3          | 150                  | Red LED         | 1 x push-pull | M8 connector plug         | 43.9     |



### Accessories

|                             |  |
|-----------------------------|--|
| <b>IO-Link-Master02-USB</b> | IO-Link master, power supply via USB port  |
| <b>OMH-ML100-031</b>        | Mounting aid for circular profiles, $\varnothing$ 10 mm ... 14 mm or flat profiles 1 mm ... 5 mm |
| <b>OMH-ML100-09</b>         | Mounting aid for circular profiles $\varnothing$ 12 mm or flat profiles 1.5 mm ... 3 mm          |
| <b>OMH-R10X-04</b>          | Mounting bracket   |
| <b>OMH-R10X-10</b>          | Mounting bracket   |
| <b>V3-WM-2M-PUR</b>         | Single-ended female cordset, M8, 3-pin, PUR cable  |
| <b>V31-GM-2M-PUR</b>        | Single-ended female cordset, M8, 4-pin, PUR cable  |

## R200 Series



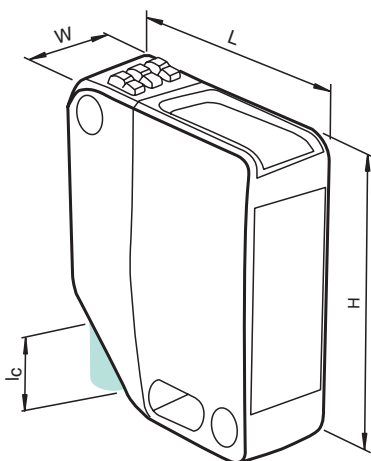
### Standard Technical Data

|                                |                            |
|--------------------------------|----------------------------|
| <b>Function principle</b>      | Distance sensor            |
| <b>Interface</b>               | IO-Link                    |
| <b>Operating elements</b>      | Potentiometer, push-button |
| <b>Voltage type</b>            | DC                         |
| <b>Operating voltage (max)</b> | 30 V                       |
| <b>Housing length L</b>        | 41.7 mm                    |
| <b>Housing width W</b>         | 15 mm                      |
| <b>Housing height H</b>        | 50.6 mm                    |
| <b>UL</b>                      |                            |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number                  | Detection range [mm] | Light type      | Output type               | UB (min) | Connection type           |
|-------------------------------|----------------------|-----------------|---------------------------|----------|---------------------------|
| OMT300-R200-2EP-IO            | 300                  | Red LED         | 2 x push-pull             | 10       | Fixed cable               |
| OMT300-R200-2EP-IO-0,3M-V1    | 300                  | Red LED         | 2 x push-pull             | 10       | Fixed cable with M12 plug |
| OMT300-R200-2EP-IO-0,3M-V1-L  | 300                  | Red laser diode | 2 x push-pull             | 10       | Fixed cable with M12 plug |
| OMT300-R200-2EP-IO-0,3M-V31   | 300                  | Red LED         | 2 x push-pull             | 10       | Fixed cable with M8 plug  |
| OMT300-R200-2EP-IO-0,3M-V31-L | 300                  | Red laser diode | 2 x push-pull             | 10       | Fixed cable with M8 plug  |
| OMT300-R200-2EP-IO-L          | 300                  | Red laser diode | 2 x push-pull             | 10       | Fixed cable               |
| OMT300-R200-2EP-IO-V1         | 300                  | Red LED         | 2 x push-pull             | 10       | M12 connector plug        |
| OMT300-R200-2EP-IO-V1-L       | 300                  | Red laser diode | 2 x push-pull             | 10       | M12 connector plug        |
| OMT300-R200-2EP-IO-V31        | 300                  | Red LED         | 2 x push-pull             | 10       | M8 connector plug         |
| OMT300-R200-2EP-IO-V31-L      | 300                  | Red laser diode | 2 x push-pull             | 10       | M8 connector plug         |
| OMT300-R200-EP-IO-0,3M-V3     | 300                  | Red LED         | 1 x push-pull             | 10       | Fixed cable with M8 plug  |
| OMT300-R200-EP-IO-0,3M-V3-L   | 300                  | Red laser diode | 1 x push-pull             | 10       | Fixed cable with M8 plug  |
| OMT300-R200-EP-IO-V3          | 300                  | Red LED         | 1 x push-pull             | 10       | M8 connector plug         |
| OMT300-R200-EP-IO-V3-L        | 300                  | Red laser diode | 1 x push-pull             | 10       | M8 connector plug         |
| OMT300-R200-IEP-IO-0,3M-V1    | 300                  | Red LED         | 1 x push-pull, 1 x analog | 18       | Fixed cable with M12 plug |
| OMT300-R200-IEP-IO-0,3M-V1-L  | 300                  | Red laser diode | 1 x push-pull, 1 x analog | 18       | Fixed cable with M12 plug |
| OMT300-R200-IEP-IO-0,3M-V31   | 300                  | Red LED         | 1 x push-pull, 1 x analog | 18       | Fixed cable with M8 plug  |
| OMT300-R200-IEP-IO-0,3M-V31-L | 300                  | Red laser diode | 1 x push-pull, 1 x analog | 18       | Fixed cable with M8 plug  |
| OMT300-R200-IEP-IO-V1         | 300                  | Red LED         | 1 x push-pull, 1 x analog | 18       | M12 connector plug        |
| OMT300-R200-IEP-IO-V1-L       | 300                  | Red laser diode | 1 x push-pull, 1 x analog | 18       | M12 connector plug        |
| OMT300-R200-IEP-IO-V31        | 300                  | Red LED         | 1 x push-pull, 1 x analog | 18       | M8 connector plug         |
| OMT300-R200-IEP-IO-V31-L      | 300                  | Red laser diode | 1 x push-pull, 1 x analog | 18       | M8 connector plug         |
| OMT300-R200-UEP-IO-0,3M-V1    | 300                  | Red LED         | 1 x push-pull, 1 x analog | 18       | Fixed cable with M12 plug |
| OMT300-R200-UEP-IO-0,3M-V1-L  | 300                  | Red laser diode | 1 x push-pull, 1 x analog | 18       | Fixed cable with M12 plug |
| OMT300-R200-UEP-IO-0,3M-V31   | 300                  | Red LED         | 1 x push-pull, 1 x analog | 18       | Fixed cable with M8 plug  |
| OMT300-R200-UEP-IO-0,3M-V31-L | 300                  | Red laser diode | 1 x push-pull, 1 x analog | 18       | Fixed cable with M8 plug  |
| OMT300-R200-UEP-IO-V1         | 300                  | Red LED         | 1 x push-pull, 1 x analog | 18       | M12 connector plug        |
| OMT300-R200-UEP-IO-V1-L       | 300                  | Red laser diode | 1 x push-pull, 1 x analog | 18       | M12 connector plug        |
| OMT300-R200-UEP-IO-V31        | 300                  | Red LED         | 1 x push-pull, 1 x analog | 18       | M8 connector plug         |
| OMT300-R200-UEP-IO-V31-L      | 300                  | Red laser diode | 1 x push-pull, 1 x analog | 18       | M8 connector plug         |
| OMT550-R200-2EP-IO            | 550                  | Red LED         | 2 x push-pull             | 10       | Fixed cable               |
| OMT550-R200-2EP-IO-0,3M-V1    | 550                  | Red LED         | 2 x push-pull             | 10       | Fixed cable with M12 plug |
| OMT550-R200-2EP-IO-0,3M-V31   | 550                  | Red LED         | 2 x push-pull             | 10       | Fixed cable with M8 plug  |
| OMT550-R200-2EP-IO-V1         | 550                  | Red LED         | 2 x push-pull             | 10       | M12 connector plug        |
| OMT550-R200-2EP-IO-V31        | 550                  | Red LED         | 2 x push-pull             | 10       | M8 connector plug         |
| OMT550-R200-EP-IO-0,3M-V3     | 550                  | Red LED         | 1 x push-pull             | 10       | Fixed cable with M8 plug  |
| OMT550-R200-EP-IO-V3          | 550                  | Red LED         | 1 x push-pull             | 10       | M8 connector plug         |
| OMT550-R200-IEP-IO-0,3M-V1    | 550                  | Red LED         | 1 x push-pull, 1 x analog | 18       | Fixed cable with M12 plug |
| OMT550-R200-IEP-IO-0,3M-V31   | 550                  | Red LED         | 1 x push-pull, 1 x analog | 18       | Fixed cable with M8 plug  |
| OMT550-R200-IEP-IO-V1         | 550                  | Red LED         | 1 x push-pull, 1 x analog | 18       | M12 connector plug        |

| Model number                  | Detection range [mm] | Light type      | Output type               | UB (min) | Connection type           |
|-------------------------------|----------------------|-----------------|---------------------------|----------|---------------------------|
| OMT550-R200-IEP-IO-V31        | 550                  | Red LED         | 1 x push-pull, 1 x analog | 18       | M8 connector plug         |
| OMT550-R200-UEP-IO-0,3M-V1    | 550                  | Red LED         | 1 x push-pull, 1 x analog | 18       | Fixed cable with M12 plug |
| OMT550-R200-UEP-IO-0,3M-V31   | 550                  | Red LED         | 1 x push-pull, 1 x analog | 18       | Fixed cable with M8 plug  |
| OMT550-R200-UEP-IO-V1         | 550                  | Red LED         | 1 x push-pull, 1 x analog | 18       | M12 connector plug        |
| OMT550-R200-UEP-IO-V31        | 550                  | Red LED         | 1 x push-pull, 1 x analog | 18       | M8 connector plug         |
| OMT600-R200-2EP-IO-0,3M-V1-L  | 600                  | Red laser diode | 2 x push-pull             | 10       | Fixed cable with M12 plug |
| OMT600-R200-2EP-IO-0,3M-V31-L | 600                  | Red laser diode | 2 x push-pull             | 10       | Fixed cable with M8 plug  |
| OMT600-R200-2EP-IO-L          | 600                  | Red laser diode | 2 x push-pull             | 10       | Fixed cable               |
| OMT600-R200-2EP-IO-V1-L       | 600                  | Red laser diode | 2 x push-pull             | 10       | M12 connector plug        |
| OMT600-R200-2EP-IO-V31-L      | 600                  | Red laser diode | 2 x push-pull             | 10       | M8 connector plug         |
| OMT600-R200-EP-IO-0,3M-V3-L   | 600                  | Red laser diode | 1 x push-pull             | 10       | Fixed cable with M8 plug  |
| OMT600-R200-EP-IO-V3-L        | 600                  | Red laser diode | 1 x push-pull             | 10       | M8 connector plug         |
| OMT600-R200-IEP-IO-0,3M-V1-L  | 600                  | Red laser diode | 1 x push-pull, 1 x analog | 18       | Fixed cable with M12 plug |
| OMT600-R200-IEP-IO-0,3M-V31-L | 600                  | Red laser diode | 1 x push-pull, 1 x analog | 18       | Fixed cable with M8 plug  |
| OMT600-R200-IEP-IO-V1-L       | 600                  | Red laser diode | 1 x push-pull, 1 x analog | 18       | M12 connector plug        |
| OMT600-R200-IEP-IO-V31-L      | 600                  | Red laser diode | 1 x push-pull, 1 x analog | 18       | M8 connector plug         |
| OMT600-R200-UEP-IO-0,3M-V1-L  | 600                  | Red laser diode | 1 x push-pull, 1 x analog | 18       | Fixed cable with M12 plug |
| OMT600-R200-UEP-IO-0,3M-V31-L | 600                  | Red laser diode | 1 x push-pull, 1 x analog | 18       | Fixed cable with M8 plug  |
| OMT600-R200-UEP-IO-V1-L       | 600                  | Red laser diode | 1 x push-pull, 1 x analog | 18       | M12 connector plug        |
| OMT600-R200-UEP-IO-V31-L      | 600                  | Red laser diode | 1 x push-pull, 1 x analog | 18       | M8 connector plug         |



#### Accessories

|                             |   |
|-----------------------------|---|
| <b>IO-Link-Master02-USB</b> | IO-Link master, power supply via USB port   |
| <b>OMH-MLV12-HWG</b>        | Mounting bracket for MLV12 series sensors   |
| <b>OMH-MLV12-HWK</b>        | Mounting bracket for MLV12 series sensors   |
| <b>OMH-R200-01</b>          | Mounting aid for circular profiles $\varnothing$ 12 mm or flat profiles 1.5 mm ... 3 mm |
| <b>OMH-R20x-Quick-Mount</b> | Quick-mounting aid  |
| <b>V1-W-2M-PUR</b>          | Single-ended female cordset, M12, 4-pin, PUR cable                                      |
| <b>V3-GM-2M-PUR</b>         | Single-ended female cordset, M8, 3-pin, PUR cable                                       |
| <b>V3-WM-2M-PUR</b>         | Single-ended female cordset, M8, 3-pin, PUR cable                                       |
| <b>V31-GM-2M-PUR</b>        | Single-ended female cordset, M8, 4-pin, PUR cable                                       |
| <b>V31-WM-2M-PUR</b>        | Single-ended female cordset, M8, 4-pin, PUR cable                                       |

## R201 Series



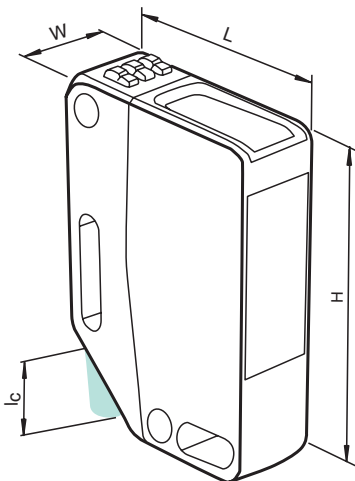
### Standard Technical Data

|                                |                            |
|--------------------------------|----------------------------|
| <b>Function principle</b>      | Distance sensor            |
| <b>Interface</b>               | IO-Link                    |
| <b>Operating elements</b>      | Potentiometer, push-button |
| <b>Voltage type</b>            | DC                         |
| <b>Operating voltage (max)</b> | 30 V                       |
| <b>Housing length L</b>        | 41.7 mm                    |
| <b>Housing width W</b>         | 15 mm                      |
| <b>Housing height H</b>        | 61.7 mm                    |
| <b>UL</b>                      |                            |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number                  | Detection range [mm] | Light type      | Output type               | UB (min) | Connection type           |
|-------------------------------|----------------------|-----------------|---------------------------|----------|---------------------------|
| OMT300-R201-2EP-IO            | 300                  | Red LED         | 2 x push-pull             | 10       | Fixed cable               |
| OMT300-R201-2EP-IO-L          | 300                  | Red laser diode | 2 x push-pull             | 10       | Fixed cable               |
| OMT300-R201-2EP-IO-V1         | 300                  | Red LED         | 2 x push-pull             | 10       | M12 connector plug        |
| OMT300-R201-2EP-IO-0,3M-V1    | 300                  | Red LED         | 2 x push-pull             | 10       | Fixed cable with M12 plug |
| OMT300-R201-2EP-IO-V31        | 300                  | Red LED         | 2 x push-pull             | 10       | M8 connector plug         |
| OMT300-R201-2EP-IO-0,3M-V31   | 300                  | Red LED         | 2 x push-pull             | 10       | Fixed cable with M8 plug  |
| OMT300-R201-EP-IO-V3          | 300                  | Red LED         | 1 x push-pull             | 10       | M8 connector plug         |
| OMT300-R201-EP-IO-0,3M-V3     | 300                  | Red LED         | 1 x push-pull             | 10       | Fixed cable with M8 plug  |
| OMT300-R201-IEP-IO-V1         | 300                  | Red LED         | 1 x push-pull, 1 x analog | 18       | M12 connector plug        |
| OMT300-R201-IEP-IO-0,3M-V1    | 300                  | Red LED         | 1 x push-pull, 1 x analog | 18       | Fixed cable with M12 plug |
| OMT300-R201-IEP-IO-V31        | 300                  | Red LED         | 1 x push-pull, 1 x analog | 18       | M8 connector plug         |
| OMT300-R201-IEP-IO-0,3M-V31   | 300                  | Red LED         | 1 x push-pull, 1 x analog | 18       | Fixed cable with M8 plug  |
| OMT300-R201-UEP-IO-V1         | 300                  | Red LED         | 1 x push-pull, 1 x analog | 18       | M12 connector plug        |
| OMT300-R201-UEP-IO-0,3M-V1    | 300                  | Red LED         | 1 x push-pull, 1 x analog | 18       | Fixed cable with M12 plug |
| OMT300-R201-UEP-IO-V31        | 300                  | Red LED         | 1 x push-pull, 1 x analog | 18       | M8 connector plug         |
| OMT300-R201-UEP-IO-0,3M-V31   | 300                  | Red LED         | 1 x push-pull, 1 x analog | 18       | Fixed cable with M8 plug  |
| OMT300-R201-2EP-IO-V1-L       | 300                  | Red laser diode | 2 x push-pull             | 10       | M12 connector plug        |
| OMT300-R201-2EP-IO-0,3M-V1-L  | 300                  | Red laser diode | 2 x push-pull             | 10       | Fixed cable with M12 plug |
| OMT300-R201-2EP-IO-0,3M-V31-L | 300                  | Red laser diode | 2 x push-pull             | 10       | Fixed cable with M8 plug  |
| OMT300-R201-2EP-IO-V31-L      | 300                  | Red laser diode | 2 x push-pull             | 10       | M8 connector plug         |
| OMT300-R201-EP-IO-0,3M-V3-L   | 300                  | Red laser diode | 1 x push-pull             | 10       | Fixed cable with M8 plug  |
| OMT300-R201-EP-IO-V3-L        | 300                  | Red laser diode | 1 x push-pull             | 10       | M8 connector plug         |
| OMT300-R201-IEP-IO-0,3M-V1-L  | 300                  | Red laser diode | 1 x push-pull, 1 x analog | 18       | Fixed cable with M12 plug |
| OMT300-R201-IEP-IO-0,3M-V31-L | 300                  | Red laser diode | 1 x push-pull, 1 x analog | 18       | Fixed cable with M8 plug  |
| OMT300-R201-IEP-IO-V1-L       | 300                  | Red laser diode | 1 x push-pull, 1 x analog | 18       | M12 connector plug        |
| OMT300-R201-IEP-IO-V31-L      | 300                  | Red laser diode | 1 x push-pull, 1 x analog | 18       | M8 connector plug         |
| OMT300-R201-UEP-IO-0,3M-V1-L  | 300                  | Red laser diode | 1 x push-pull, 1 x analog | 18       | Fixed cable with M12 plug |
| OMT300-R201-UEP-IO-0,3M-V31-L | 300                  | Red laser diode | 1 x push-pull, 1 x analog | 18       | Fixed cable with M8 plug  |
| OMT300-R201-UEP-IO-V1-L       | 300                  | Red laser diode | 1 x push-pull, 1 x analog | 18       | M12 connector plug        |
| OMT300-R201-UEP-IO-V31-L      | 300                  | Red laser diode | 1 x push-pull, 1 x analog | 18       | M8 connector plug         |
| OMT550-R201-2EP-IO            | 550                  | Red LED         | 2 x push-pull             | 10       | Fixed cable               |
| OMT550-R201-2EP-IO-V1         | 550                  | Red LED         | 2 x push-pull             | 10       | M12 connector plug        |
| OMT550-R201-2EP-IO-0,3M-V1    | 550                  | Red LED         | 2 x push-pull             | 10       | Fixed cable with M12 plug |
| OMT550-R201-2EP-IO-V31        | 550                  | Red LED         | 2 x push-pull             | 10       | M8 connector plug         |
| OMT550-R201-2EP-IO-0,3M-V31   | 550                  | Red LED         | 2 x push-pull             | 10       | Fixed cable with M8 plug  |
| OMT550-R201-EP-IO-V3          | 550                  | Red LED         | 1 x push-pull             | 10       | M8 connector plug         |
| OMT550-R201-EP-IO-0,3M-V3     | 550                  | Red LED         | 1 x push-pull             | 10       | Fixed cable with M8 plug  |
| OMT550-R201-IEP-IO-V1         | 550                  | Red LED         | 1 x push-pull, 1 x analog | 18       | M12 connector plug        |
| OMT550-R201-IEP-IO-0,3M-V1    | 550                  | Red LED         | 1 x push-pull, 1 x analog | 18       | Fixed cable with M12 plug |
| OMT550-R201-IEP-IO-V31        | 550                  | Red LED         | 1 x push-pull, 1 x analog | 18       | M8 connector plug         |

| Model number                  | Detection range [mm] | Light type      | Output type               | UB (min) | Connection type           |
|-------------------------------|----------------------|-----------------|---------------------------|----------|---------------------------|
| OMT550-R201-IEP-IO-0,3M-V31   | 550                  | Red LED         | 1 x push-pull, 1 x analog | 18       | Fixed cable with M8 plug  |
| OMT550-R201-UEP-IO-V1         | 550                  | Red LED         | 1 x push-pull, 1 x analog | 18       | M12 connector plug        |
| OMT550-R201-UEP-IO-0,3M-V1    | 550                  | Red LED         | 1 x push-pull, 1 x analog | 18       | Fixed cable with M12 plug |
| OMT550-R201-UEP-IO-V31        | 550                  | Red LED         | 1 x push-pull, 1 x analog | 18       | M8 connector plug         |
| OMT550-R201-UEP-IO-0,3M-V31   | 550                  | Red LED         | 1 x push-pull, 1 x analog | 18       | Fixed cable with M8 plug  |
| OMT600-R201-2EP-IO-0,3M-V1-L  | 600                  | Red laser diode | 2 x push-pull             | 10       | Fixed cable with M12 plug |
| OMT600-R201-2EP-IO-0,3M-V31-L | 600                  | Red laser diode | 2 x push-pull             | 10       | Fixed cable with M8 plug  |
| OMT600-R201-2EP-IO-L          | 600                  | Red laser diode | 2 x push-pull             | 10       | Fixed cable               |
| OMT600-R201-2EP-IO-V1-L       | 600                  | Red laser diode | 2 x push-pull             | 10       | M12 connector plug        |
| OMT600-R201-2EP-IO-V31-L      | 600                  | Red laser diode | 2 x push-pull             | 10       | M8 connector plug         |
| OMT600-R201-EP-IO-0,3M-V3-L   | 600                  | Red laser diode | 1 x push-pull             | 10       | Fixed cable with M8 plug  |
| OMT600-R201-EP-IO-V3-L        | 600                  | Red laser diode | 1 x push-pull             | 10       | M8 connector plug         |
| OMT600-R201-IEP-IO-0,3M-V1-L  | 600                  | Red laser diode | 1 x push-pull, 1 x analog | 18       | Fixed cable with M12 plug |
| OMT600-R201-IEP-IO-0,3M-V31-L | 600                  | Red laser diode | 1 x push-pull, 1 x analog | 18       | Fixed cable with M8 plug  |
| OMT600-R201-IEP-IO-V1-L       | 600                  | Red laser diode | 1 x push-pull, 1 x analog | 18       | M12 connector plug        |
| OMT600-R201-IEP-IO-V31-L      | 600                  | Red laser diode | 1 x push-pull, 1 x analog | 18       | M8 connector plug         |
| OMT600-R201-UEP-IO-0,3M-V1-L  | 600                  | Red laser diode | 1 x push-pull, 1 x analog | 18       | Fixed cable with M12 plug |
| OMT600-R201-UEP-IO-0,3M-V31-L | 600                  | Red laser diode | 1 x push-pull, 1 x analog | 18       | Fixed cable with M8 plug  |
| OMT600-R201-UEP-IO-V1-L       | 600                  | Red laser diode | 1 x push-pull, 1 x analog | 18       | M12 connector plug        |
| OMT600-R201-UEP-IO-V31-L      | 600                  | Red laser diode | 1 x push-pull, 1 x analog | 18       | M8 connector plug         |



### Accessories

|                             |  |
|-----------------------------|--|
| <b>IO-Link-Master02-USB</b> | IO-Link master, supply via USB port or separate power supply, LED indicators, M12 plug for sensor connection |
| <b>OMH-R20x-Quick-Mount</b> | Quick-mounting aid   |
| <b>OMH-RL31-02</b>          | Narrow mounting bracket  |
| <b>OMH-RL31-03</b>          | Narrow mounting bracket  |
| <b>OMH-RL31-04</b>          | Mounting aid for circular profiles $\varnothing$ 12 mm or flat profiles 1.5 mm ... 3 mm                      |
| <b>OMH-RL31-07</b>          | Mounting bracket complete with adjustment component  |
| <b>V1-G-2M-PUR</b>          | Single-ended female cordset, M12, 4-pin, PUR cable   |
| <b>V1-W-2M-PUR</b>          | Single-ended female cordset, M12, 4-pin, PUR cable   |
| <b>V3-GM-2M-PUR</b>         | Single-ended female cordset, M8, 3-pin, PUR cable  |
| <b>V31-GM-2M-PUR</b>        | Single-ended female cordset, M8, 4-pin, PUR cable  |

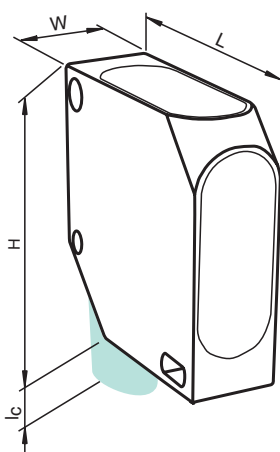
# VDM18 Series



| Standard Technical Data |                    |
|-------------------------|--------------------|
| Function principle      | Distance sensor    |
| Light type              | Red laser diode    |
| Operating elements      | Potentiometer      |
| Voltage type            | DC                 |
| Operating voltage (min) | 18 V               |
| Operating voltage (max) | 30 V               |
| Connection type         | M12 connector plug |
| Housing length L        | 50 mm              |
| Housing width W         | 17 mm              |
| Housing height H        | 50 mm              |
| UL                      | ■                  |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number            | Detection range [mm] | Output type |
|-------------------------|----------------------|-------------|
| VDM18-100/20/122/151    | 100                  | PNP         |
| VDM18-100/20/88/122/151 | 100                  | PNP         |
| VDM18-100/32/105/122    | 100                  | PNP         |
| VDM18-300/20/122/151    | 300                  | PNP         |
| VDM18-300/20/88/122/151 | 300                  | PNP         |
| VDM18-300/21/122/151    | 300                  | NPN         |
| VDM18-300/32/105/122    | 300                  | PNP         |



| Accessories  |  |
|--------------|--|
| OMH-VDM18-01 | Mounting aid for series VDM18 distance measurement devices |
| OMH-VDM18-02 | Mounting aid for series VDM18 distance measurement devices |



# VDM28 Series

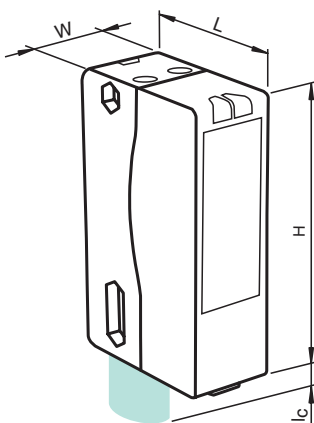


### Standard Technical Data

|                                |                            |
|--------------------------------|----------------------------|
| <b>Function principle</b>      | Distance sensor            |
| <b>Operating elements</b>      | Potentiometer, push-button |
| <b>Voltage type</b>            | DC                         |
| <b>Operating voltage (min)</b> | 10 V                       |
| <b>Operating voltage (max)</b> | 30 V                       |
| <b>Housing width W</b>         | 25.8 mm                    |
| <b>Housing height H</b>        | 88 mm                      |
| <b>UL</b>                      | ■                          |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number                  | Detection range [mm] | Light type           | Interface | Output type   | Connection type           | Length L | EAC |
|-------------------------------|----------------------|----------------------|-----------|---------------|---------------------------|----------|-----|
| VDM28-8-L1-IO/110/115b/122    | 8000                 | Red laser diode      | IO-Link   | 1 x push-pull | Fixed cable with M12 plug | 54.6     |     |
| VDM28-8-L1-IO/115b/136        | 8000                 | Red laser diode      | IO-Link   | 2 x push-pull | Fixed cable with M12 plug | 54.6     |     |
| VDM28-8-L1-IO/33/110/115b/122 | 8000                 | Red laser diode      | IO-Link   | 1 x push-pull | Fixed cable with M12 plug | 54.6     |     |
| VDM28-8-L1-IO/73c/110/122     | 8000                 | Red laser diode      | IO-Link   | 1 x push-pull | M12 connector plug        | 54.6     |     |
| VDM28-8-L1-IO/73c/136         | 8000                 | Red laser diode      | IO-Link   | 2 x push-pull | M12 connector plug        | 54.6     |     |
| VDM28-8-L1-IR-IO/73C/110/122  | 8000                 | Infrared laser diode | IO-Link   | 1 x push-pull | M12 connector plug        | 54.6     |     |
| VDM28-8-L1/73c/136            | 8000                 | Red laser diode      |           | 2 x push-pull | M12 connector plug        | 54.3     |     |
| VDM28-15-L1-IO/110/115b/122   | 15000                | Red laser diode      | IO-Link   | 1 x push-pull | Fixed cable with M12 plug | 54.6     |     |
| VDM28-15-L1-IO/73c/110/122    | 15000                | Red laser diode      | IO-Link   | 1 x push-pull | M12 connector plug        | 54.6     | ■   |
| VDM28-15-L1/73c/136           | 15000                | Red laser diode      |           | 2 x push-pull | M12 connector plug        | 54.3     |     |
| VDM28-50-R1-IO/73c/110/122    | 50000                | Red laser diode      | IO-Link   | 1 x push-pull | M12 connector plug        | 54.6     |     |
| VDM28-50-R1-IO/73c/136        | 50000                | Red laser diode      |           | 2 x push-pull | M12 connector plug        | 54.6     |     |
| VDM28-50-R1-IR-IO/73c/110/122 | 50000                | Infrared laser diode | IO-Link   | 1 x push-pull | M12 connector plug        | 54.6     |     |
| VDM28-50-R1/73c/136           | 50000                | Red laser diode      |           | 2 x push-pull | M12 connector plug        | 54.6     |     |



### Accessories

|                             |  |
|-----------------------------|--|
| <b>IO-Link-Master02-USB</b> | IO-Link master, supply via USB port or separate power supply, LED indicators, M12 plug for sensor connection |
| <b>OFR-100/100</b>          | Optical reflective film, 100 mm x 100 mm   |
| <b>OMH-05</b>               | Mounting aid for circular profiles $\varnothing$ 12 mm or flat profiles 1.5 mm ... 3 mm                      |
| <b>OMH-07-01</b>            | Mounting aid for circular profiles $\varnothing$ 12 mm or flat profiles 1.5 mm ... 3 mm                      |
| <b>OMH-21</b>               | Mounting bracket   |
| <b>OMH-22</b>               | Mounting bracket   |
| <b>OMH-K01</b>              | Mounting clamp for sensors with dovetail groove  |
| <b>OMH-K03</b>              | Mounting clamp for sensors with dovetail groove  |
| <b>OMH-RL28-C</b>           | Protective cover for protection against welding beads  |
| <b>OMH-RLK29-HW</b>         | Mounting bracket for rear wall mounting  |

# VDM100 Series

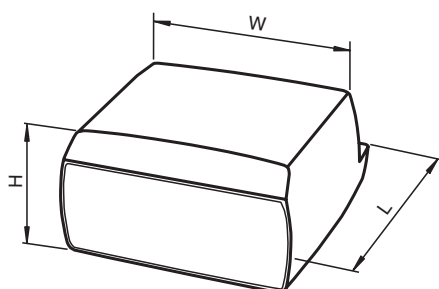


### Standard Technical Data

|                                |                                       |
|--------------------------------|---------------------------------------|
| <b>Function principle</b>      | Distance sensor                       |
| <b>Light type</b>              | Infrared laser diode, red laser diode |
| <b>Operating elements</b>      | Push-button                           |
| <b>Voltage type</b>            | DC                                    |
| <b>Operating voltage (min)</b> | 18 V                                  |
| <b>Operating voltage (max)</b> | 30 V                                  |
| <b>Connection type</b>         | M12 connector plug                    |
| <b>Housing length L</b>        | 170 mm                                |
| <b>Housing width W</b>         | 140 mm                                |
| <b>Housing height H</b>        | 100 mm                                |
| <b>UL</b>                      | ■                                     |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number          | Detection range [mm] | Interface   | EAC |
|-----------------------|----------------------|-------------|-----|
| VDM100-50-EIP/G2      | 50000                | Ethernet    |     |
| VDM100-50-IBS/G2      | 50000                | INTERBUS    |     |
| VDM100-50-P/G2        | 50000                | PROFIBUS    |     |
| VDM100-50-P/G2/146    | 50000                | PROFIBUS    |     |
| VDM100-50-SSI/G2      | 50000                | RS-422, SSI | ■   |
| VDM100-50-SSI/G2/146  | 50000                | RS-422, SSI |     |
| VDM100-150-EIP/G2     | 150000               | Ethernet    |     |
| VDM100-150-IBS/G2     | 150000               | INTERBUS    |     |
| VDM100-150-P/G2       | 150000               | PROFIBUS    |     |
| VDM100-150-P/G2/146   | 150000               | PROFIBUS    |     |
| VDM100-150-SSI/G2     | 150000               | RS-422, SSI |     |
| VDM100-150-SSI/G2/146 | 150000               | RS-422, SSI |     |
| VDM100-300-EIP/G2     | 300000               | Ethernet    |     |
| VDM100-300-IBS/G2     | 300000               | INTERBUS    |     |
| VDM100-300-P/G2       | 300000               | PROFIBUS    |     |
| VDM100-300-SSI/G2     | 300000               | RS-422, SSI |     |



### Accessories

|                        |   |
|------------------------|---|
| <b>Funktionserdung</b> | Functional grounding for LS610/LS611/VDM100 series                      |
| <b>ICZ-TR-V15B</b>     | Terminator for PROFIBUS   |
| <b>OFR-500/500</b>     | Optical reflective film   |
| <b>OMH-LS610-01</b>    | Mounting bracket for optical data couplers                              |
| <b>OMH-LS610-02</b>    | Direct mounting set consisting of four M4 threaded inserts              |
| <b>OMH-LS610-03</b>    | Mounting bracket with deviation mirror for optical data couplers        |
| <b>OMH-VDM100-01</b>   | Mounting bracket with deviation mirror for distance measurement devices |
| <b>REF-VDM02</b>       | Reflector for distance measurement devices                              |
| <b>Schutzkappe</b>     | M12 protective cap set (plug + socket) for LS610/LS611 series           |
| <b>V15-G-PG9</b>       | Single-ended female cordset, M12, 5-pin, field-attachable               |

# R2100 Series



## Standard Technical Data

|                         |                    |
|-------------------------|--------------------|
| Function principle      | 2-D LIDAR sensor   |
| Detection range         | 8000 mm            |
| Light type              | Infrared LED       |
| Voltage type            | DC                 |
| Operating voltage (min) | 10 V               |
| Operating voltage (max) | 30 V               |
| Connection type         | M12 connector plug |
| Housing length L        | 157 mm             |
| Housing width W         | 81 mm              |
| Housing height H        | 45 mm              |
| UL                      | ■                  |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

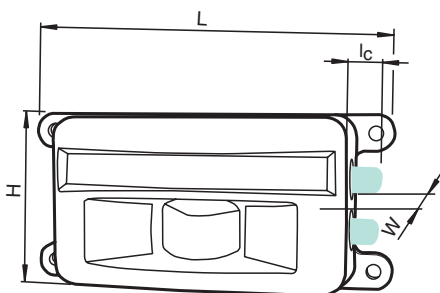
| Model number           | Interface |
|------------------------|-----------|
| OMD8000-R2100-B16-2V15 | CAN       |
| OMD8000-R2100-R2-2V15  |           |

## Highlights

- Development of the PRT ensures reliable and clear measurement
- Long service life due to measurement using LEDs
- Ideal for mechanically demanding applications as there are no moving parts in the sensor
- 2D measurement using 11 individual rays
- Large light spots tolerate different surface textures
- Reduced energy consumption for greater cost efficiency
- High speed of response for faster processes

## Brief Description

The unique development of PRT offers the user unprecedented flexibility. Impressive sensor performance and durability make the R2100 a cost-effective solution with an outstanding performance.



## Accessories

|                 |  |
|-----------------|--|
| V1-G-BK5M-PUR-U | Single-ended female cordset, M12, 4-pin, PUR cable |
| V1-W-2M-PUR     | Single-ended female cordset, M12, 4-pin, PUR cable |

## R2000 Series



### Standard Technical Data

|                                |                    |
|--------------------------------|--------------------|
| <b>Function principle</b>      | 2-D LIDAR sensor   |
| <b>Operating elements</b>      | Push-button        |
| <b>Voltage type</b>            | DC                 |
| <b>Operating voltage (min)</b> | 10 V               |
| <b>Operating voltage (max)</b> | 30 V               |
| <b>Connection type</b>         | M12 connector plug |
| <b>Housing length L</b>        | 106 mm             |
| <b>Housing width W</b>         | 106 mm             |
| <b>Housing height H</b>        | 116.5 mm           |
| <b>UL</b>                      | ■                  |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

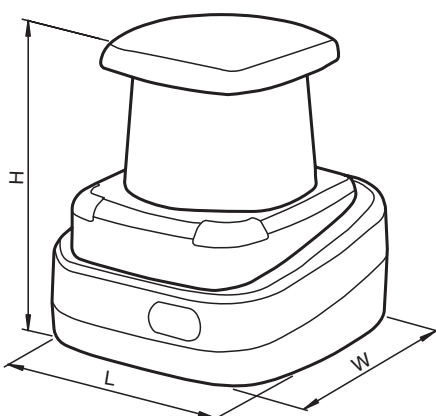
| Model number                 | Detection range [mm] | Light type           | Repeat rate [kHz] | Resolution |
|------------------------------|----------------------|----------------------|-------------------|------------|
| OBD10M-R2000-4EP-V1V17       | 10000                | Red laser diode      | 54                |            |
| OMD10M-R2000-B23-V1V1D       | 10000                | Red laser diode      | 250               | 1 mm       |
| OMD12M-R2000-B23-V1V1D-HD-1L | 12000                | Infrared laser diode | 84                | 1 mm       |
| OBD30M-R2000-4EP-V1V17-1L    | 30000                | Infrared laser diode | 54                |            |
| OBD30M-R2000-4EP-V1V17-T-1L  | 30000                | Infrared laser diode | 54                |            |
| OMD30M-R2000-B23-V1V1D-1L    | 30000                | Infrared laser diode | 250               | 1 mm       |
| OMD30M-R2000-B23-V1V1D-HD-1L | 30000                | Infrared laser diode | 84                | 1 mm       |
| OMD30M-R2000-B23-V1V1D-T-1L  | 30000                | Infrared laser diode | 250               | 1 mm       |
| OMD60M-R2000-B23-V1V1D-1L    | 60000                | Infrared laser diode | 250               | 1 mm       |
| OMD60M-R2000-B23-V1V1D-T-1L  | 60000                | Infrared laser diode | 250               | 1 mm       |

### Highlights

- Innovative Pulse Ranging Technology (PRT) ensures reliable and clear measurements
- Sharp light spot for small-object detection and precise edge detection
- All-round visibility with 360° measuring angle
- Compact design for simple mechanical integration
- Interactive wrap-around display facilitates commissioning

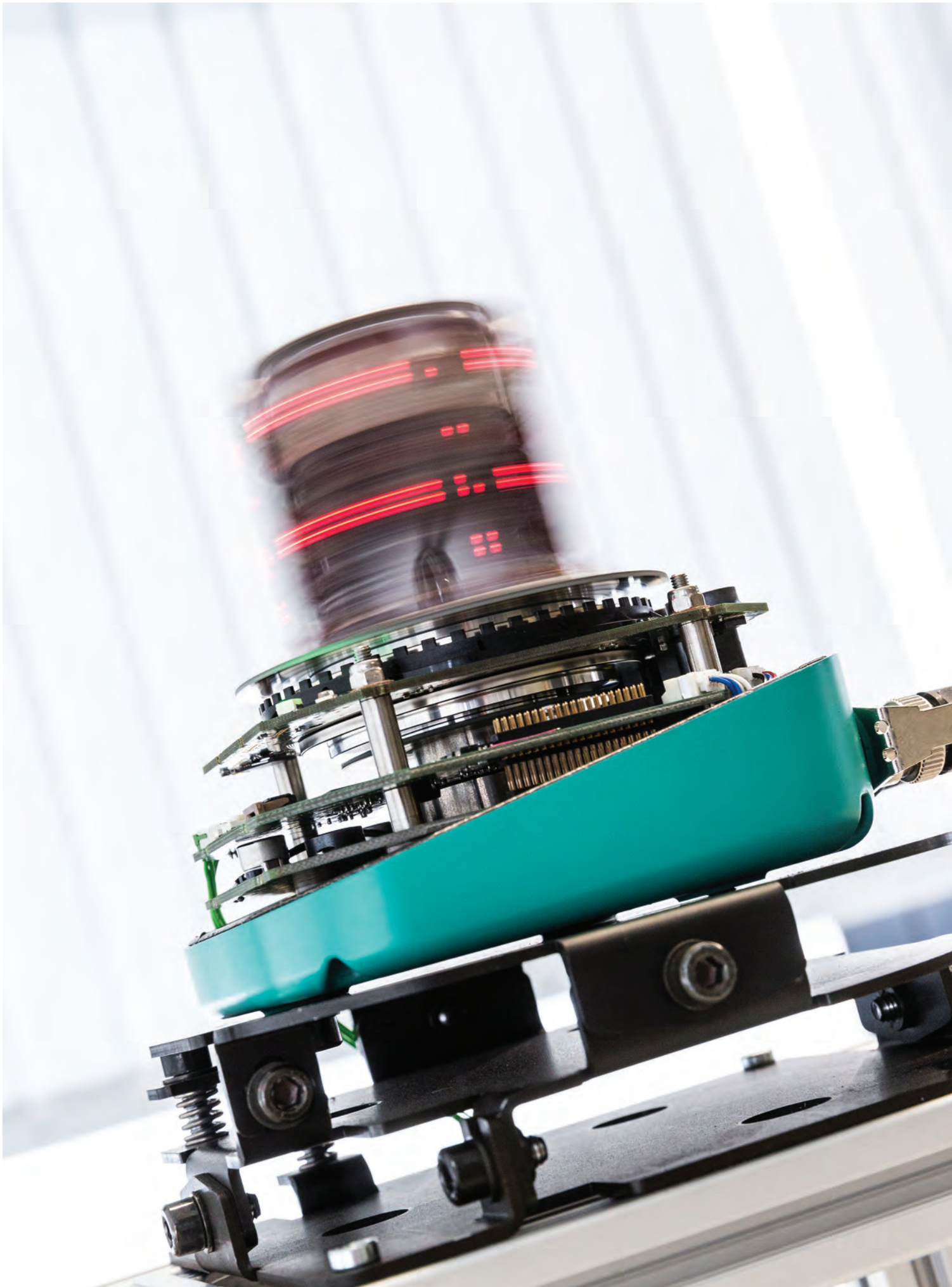
### Brief Description

The R2000 series offers a wide range of unique functionalities that make object detection safer than ever before, even under the most challenging of conditions. A small light spot combined with a high angular resolution makes it possible to detect even the smallest of objects. The all-round visibility and measuring angle of 360° eliminate the need for multiple sensors. The R2000 series is very compact, for straightforward and space-saving integration into the application. The interactive display makes it possible to show text and graphic messages. Basic settings can be configured directly on the device.



### Accessories

|                                |  |
|--------------------------------|--|
| <b>Funktionserdung</b>         | Functional grounding for LS610/LS611/VDM100 series                         |
| <b>MH-R2000</b>                | Mounting aid for R2000 series sensors, quick-lock and adjustment device    |
| <b>Schutzkappe</b>             | M12 protective cap set (plug + socket) for LS610/LS611 series              |
| <b>V1-G-5M-PUR</b>             | Single-ended female cordset, M12, 4-pin, PUR cable                         |
| <b>V1-G-BK5M-PUR-U</b>         | Single-ended female cordset, M12, 4-pin, PUR cable                         |
| <b>V1SD-G-2M-PUR-ABG-V45-G</b> | Cordset, M12 to RJ-45, PUR cable, 4-pin, CAT5e                             |
| <b>V1SD-G-5M-PUR-ABG-V45-G</b> | Cordset, M12 to RJ-45, PUR cable, 4-pin, CAT5e                             |
| <b>V1SD-G-ABG-PG9</b>          | Single-ended male cordset, M12, 4-pin, D-coded, shielded, field-attachable |

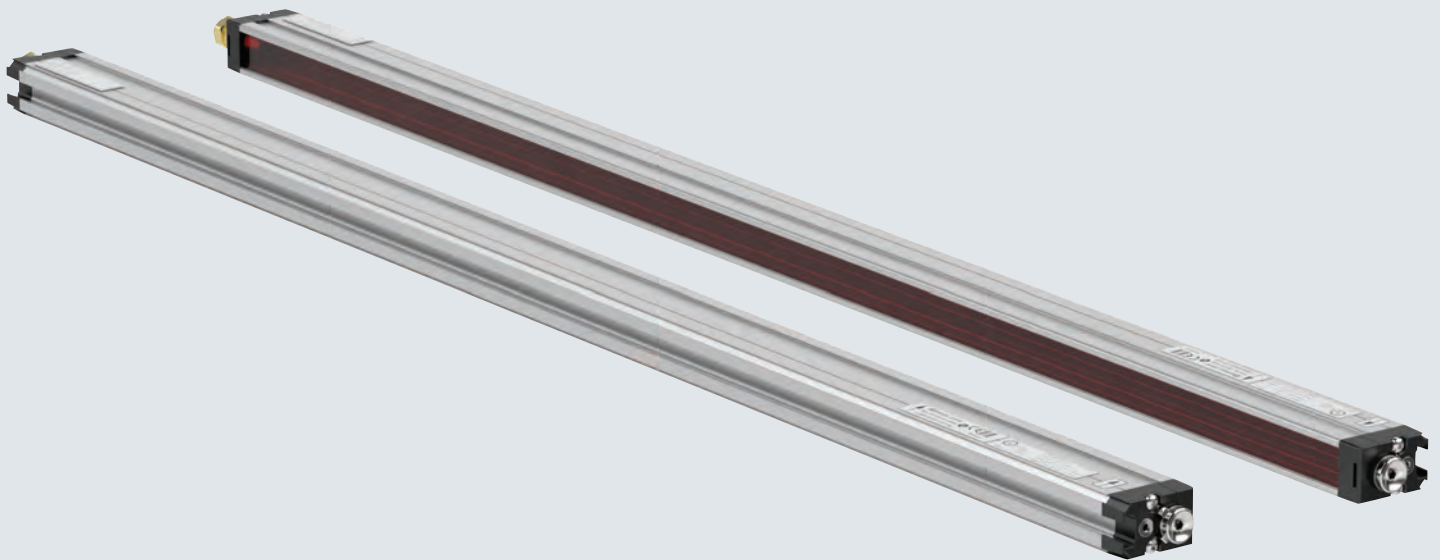




# Light Grid

## Easy Integration of Object Detection

Light grids from Pepperl+Fuchs are supremely user-friendly thanks to simple plug-and-play installation and commissioning. The software-free parameterization via touch field and the free choice of 16 integrated measuring functions (LGM) make integration simpler than ever before.



### Typical Applications

- Height and object detection in the packaging industry and in warehousing and material handling
- Detecting and counting irregular objects
- Positioning and object measurement
- Detects any shape of object
- Object identification

### The Benefits of Selected Products at a Glance

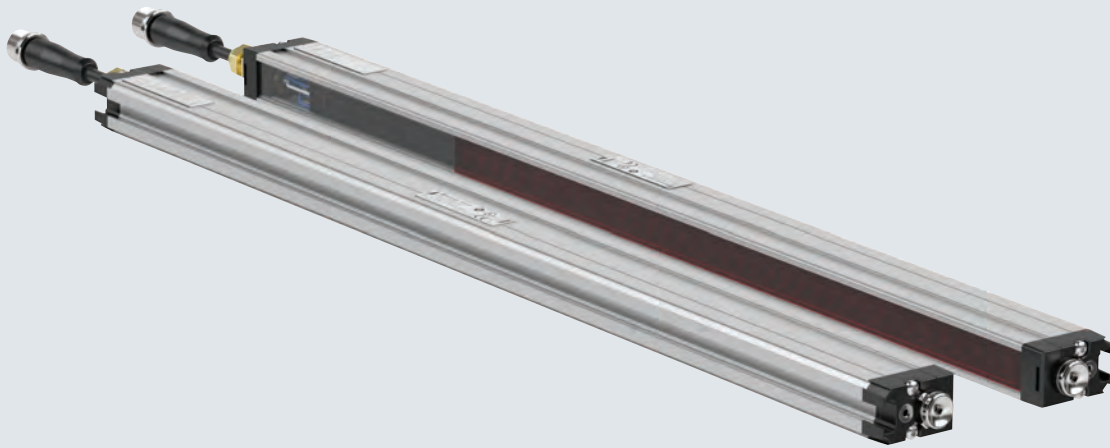
#### LGS light grid:

- Simple, software-free parameterization via touchpad or external input
- Extremely fast object detection—even with three-way crossover
- IO-Link interface for servicing and process data
- Object identification through integrated object detection

#### LGM measuring light grid:

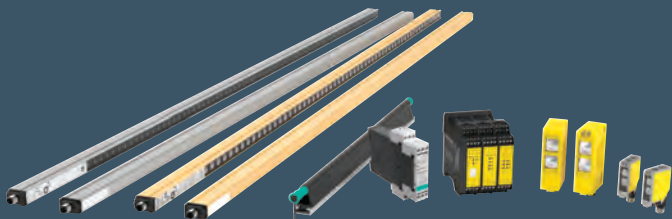
- Very user-friendly thanks to 16 integrated, freely selectable measuring functions
- Convenient integration by direct measured value output in millimeters—without complex single-beam evaluation
- Simple adjustment and evaluation via IO-Link standard interface
- Especially robust due to IP67 degree of protection





### Sensors for Safety Applications

Safety-certified Pepperl+Fuchs sensors offer the highest quality standards and reliability for protecting people and machines. The portfolio, which has been specifically tailored to functional safety requirements, also offers excellent investment security and outstanding plant availability.



More information is available at  
[www.pepperl-fuchs.com/fa-safety](http://www.pepperl-fuchs.com/fa-safety)



# Light Grids

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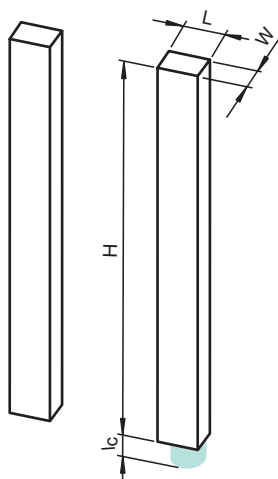
# LGM Series



| Standard Technical Data |                           |
|-------------------------|---------------------------|
| Function principle      | Thru-beam sensor          |
| Detection range         | 6000 mm                   |
| Light type              | Infrared LED              |
| Interface               | IO-Link                   |
| Output type             | 1 x push-pull             |
| Operating elements      | Push-button               |
| Voltage type            | DC                        |
| Operating voltage (min) | 18 V                      |
| Operating voltage (max) | 30 V                      |
| Connection type         | Fixed cable with M12 plug |
| Housing length L        | 30,5 mm                   |
| Housing width W         | 20 mm                     |
| UL                      | ■                         |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number | Beam spacing |
|--------------|--------------|
| LGM8         | 8 mm         |
| LGM17        | 17 mm        |
| LGM25        | 25 mm        |
| LGM50        | 50 mm        |



| Accessories                |  |
|----------------------------|--|
| AA SLCT-01                 | Profile alignment aid; simplified alignment of the SLCS and SLCT safety light curtains                       |
| IO-Link-Master02-USB       | IO-Link master, supply via USB port or separate power supply, LED indicators, M12 plug for sensor connection |
| OMH-SLCT-01                | Quick-release and adjustment device  |
| OMH-SLCT-03                | Mounting bracket complete with adjustment component  |
| OMH-SLCT-05                | Mounting bracket complete with adjustment component  |
| V1-G-BK10M-PUR-U           | Single-ended female cordset, M12, 4-pin, PUR cable   |
| V19-G-EMV-BK0,3M-PVC-V19-G | Cordset, M12 to M12, with EMC filter, 8-pin, PVC cable   |

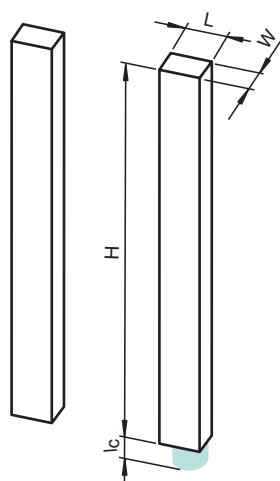
# LGS Series



| Standard Technical Data |                           |
|-------------------------|---------------------------|
| Function principle      | Thru-beam sensor          |
| Detection range         | 6000 mm                   |
| Light type              | Infrared LED              |
| Interface               | IO-Link                   |
| Output type             | 1 x push-pull             |
| Operating elements      | Push-button               |
| Voltage type            | DC                        |
| Operating voltage (min) | 18 V                      |
| Operating voltage (max) | 30 V                      |
| Connection type         | Fixed cable with M12 plug |
| Housing length L        | 30.5 mm                   |
| Housing width W         | 20 mm                     |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number | Beam spacing |
|--------------|--------------|
| LGS8         | 8 mm         |
| LGS17        | 17 mm        |
| LGS25        | 25 mm        |
| LGS50        | 50 mm        |
| LGS100       | 100 mm       |



| Accessories                   |  |
|-------------------------------|--|
| AA SLCT-01                    | Profile alignment aid; simplified alignment of the SLCS and SLCT safety light curtains |
| OMH-LGS-01                    | Mounting aid for LGS/LGM series light grids  |
| OMH-SLCT-03                   | Mounting bracket complete with adjustment component                                    |
| V1-G-BK0,6M-PUR-U-V1-G-LGS25T | Cordset, LGS25 light grids to ICE modules/WIS 2, M12 to M12, PUR cable, 4-pin          |
| V1-G-BK10M-PUR-U              | Single-ended female cordset, M12, 4-pin, PUR cable                                     |
| V1-G-BK5M-PUR-U               | Single-ended female cordset, M12, 4-pin, PUR cable                                     |
| V19-G-BK2M-PUR-U-V1-G         | Cordset, M12 to M12, 8/4-pin, PUR cable  |
| V19-G-BK5M-PUR-IEC            | Single-ended female cordset, M12, 8-pin, PUR cable                                     |
| V19-G-EMV-BK0,3M-PVC-V19-G    | Cordset, M12 to M12, with EMC filter, 8-pin, PVC cable                                 |

# RLG28 Series

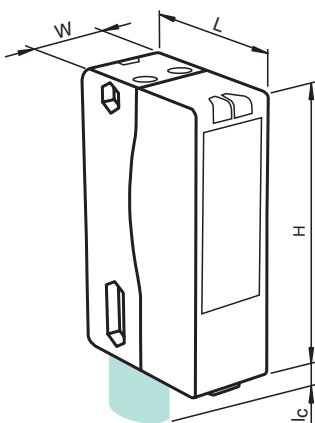


## Standard Technical Data

|                                |   |
|--------------------------------|---|
| <b>Function principle</b>      | Retroreflective sensor with polarization filter |
| <b>Light type</b>              | Red LED   |
| <b>Voltage type</b>            | DC  |
| <b>Operating voltage (min)</b> | 12 V  |
| <b>Operating voltage (max)</b> | 30 V  |
| <b>Housing length L</b>        | 54.3 mm   |
| <b>Housing width W</b>         | 25.8 mm   |
| <b>Housing height H</b>        | 88 mm   |
| <b>UL</b>                      | ■   |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number          | Detection range [mm] | Operating elements         | Output type   | Connection type           |
|-----------------------|----------------------|----------------------------|---------------|---------------------------|
| RLG28-55-7226         | 600                  | Push-button                | 2 x push-pull | Fixed cable with M12 plug |
| RLG28-55-7462         | 4000                 | Potentiometer, push-button | 1 x push-pull | M12 connector plug        |
| RLG28-55/115b/136     | 4000                 | Push-button                | 2 x push-pull | Fixed cable with M12 plug |
| RLG28-55/40a/115b/136 | 4000                 | Potentiometer, push-button | 2 x push-pull | Fixed cable with M12 plug |
| RLG28-55/40a/73c/136  | 4000                 | Potentiometer, push-button | 2 x push-pull | M12 connector plug        |



## Accessories

|                     |   |
|---------------------|---|
| <b>OMH-21</b>       | Mounting bracket                                    |
| <b>OMH-RLK29-HW</b> | Mounting bracket for rear wall mounting             |
| <b>REF-A80</b>      | Rectangular reflector, 80 mm x 50 mm, self-adhesive |
| <b>V1-G-2M-PUR</b>  | Single-ended female cordset, M12, 4-pin, PUR cable  |
| <b>V1-G-2M-PVC</b>  | Single-ended female cordset, M12, 4-pin, PVC cable  |
| <b>V1-W-2M-PUR</b>  | Single-ended female cordset, M12, 4-pin, PUR cable  |

# Special Photoelectric Sensors

## Optimized for Specific Applications

In addition to standard applications, the Pepperl+Fuchs portfolio also offers highly specialized sensors. These are designed for specific applications, so you can benefit from an optimal solution in the usual high quality.



### Fiber Optic Sensors

#### Typical Applications

- Detection of objects in very harsh ambient conditions, such as high temperatures, mechanical vibrations or contact with highly corrosive cleaning agents
- Object detection in particularly cramped mounting conditions

#### Your Benefits at a Glance

- Reliable operation under all ambient conditions
- Simple commissioning: choice of teach-in or potentiometer
- IO-Link interface available for user-friendly parameterization (MLV41)
- Fiber optic sensors with particularly high power (High Power versions)

#### Technical Features

- Degree of protection of up to IP67
- Suitable for plastic and glass fiber optics
- Narrow designs available for DIN rail mounting

### Print Mark Contrast Sensor

#### Typical Applications

- Detection of contrast marks for controlling printing, labeling, or packaging plants
- Applications in the printing, packaging, and food industries

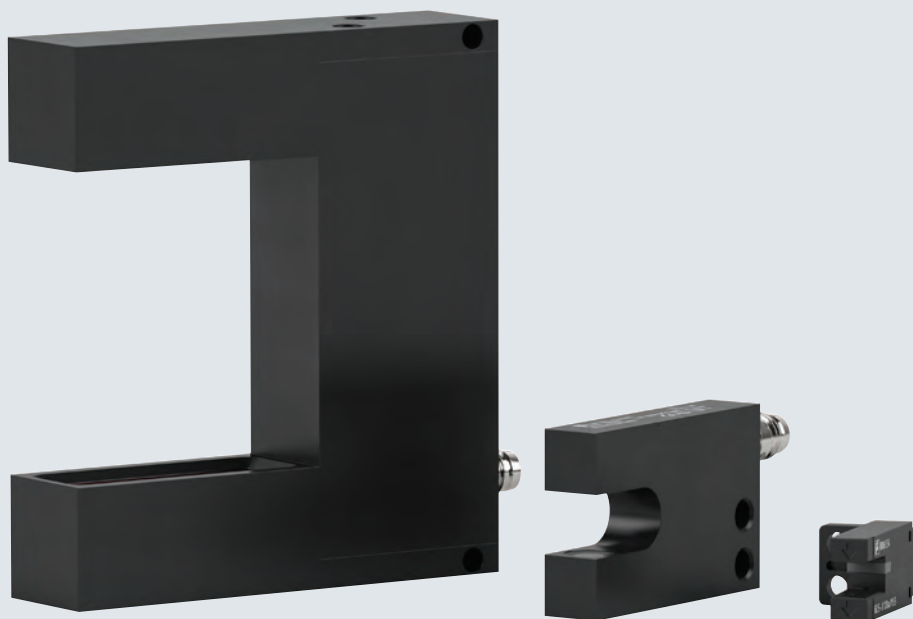
#### Your Benefits at a Glance

- Reliable detection of even weak contrast marks by active three-range method with three emitters (R, G, B) or separate teach-in for mark and background
- High switching point accuracy thanks to light spot that is aligned to contrast marks
- Suitable for extremely fast scanning processes due to short response time

#### Technical Features

- IO-Link interface available for service and process data
- Contrast sensors available in standard industrial housings
- Static or dynamic teach-in





## Slot and Slot Grid Sensors

### Typical Applications

- Presence monitoring on feed devices
- Ejection control of small parts
- Counting of bulk material on vibration conveyors
- Small part detection

### Your Benefits at a Glance

- Fast mounting through adjustment of the optical axes at the factory
- Easier mounting with a single connection
- Flexible product choice thanks to a variety of designs
- High switch point accuracy for the most precise positioning tasks

### Technical Features

- Miniature designs available—optimized for small part detection to 0.8 mm
- Slot widths up to 220 mm
- Rugged metal versions available
- Degree of protection of up to IP67

# Special Photoelectric Sensors

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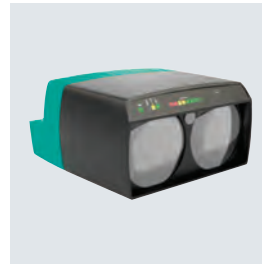
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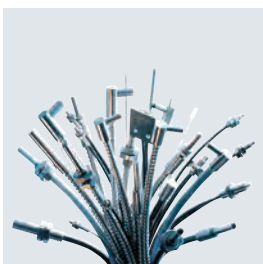
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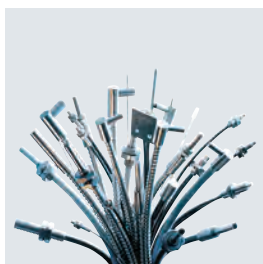
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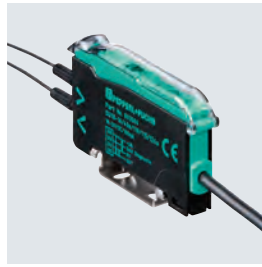
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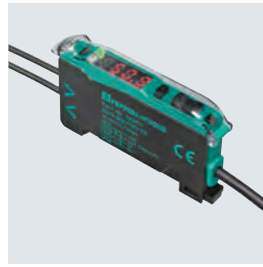
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# DAD15 Series



### Standard Technical Data

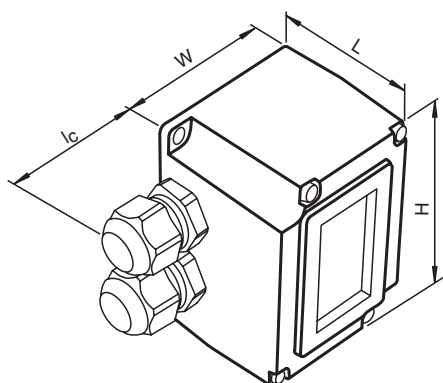
|                                |                      |
|--------------------------------|----------------------|
| <b>Function principle</b>      | Thru-beam sensor     |
| <b>Light type</b>              | Infrared LED         |
| <b>Interface</b>               | 8-bit parallel       |
| <b>Operating elements</b>      | Potentiometer        |
| <b>Voltage type</b>            | DC                   |
| <b>Operating voltage (min)</b> | 10 V                 |
| <b>Connection type</b>         | Terminal compartment |
| <b>Housing length L</b>        | 76 mm                |
| <b>Housing width W</b>         | 53 mm                |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number    | Detection range [mm] | UB (max) |
|-----------------|----------------------|----------|
| DAD15-8P        | 1500                 | 60       |
| DAD15-8P-R-2388 | 1500                 | 60       |
| DAD15-8P-NPN    | 1500                 | 30       |
| DAD15-8P/35     | 2500                 | 60       |
| DAD15-8P-NPN/35 | 2500                 | 30       |

### Accessories

|           |                  |
|-----------|------------------|
| OMH-DAD10 | Mounting bracket |
|-----------|------------------|



# LS610 Series

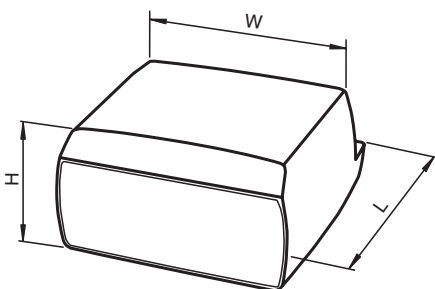


### Standard Technical Data

|                                |                    |
|--------------------------------|--------------------|
| <b>Function principle</b>      | Thru-beam sensor   |
| <b>Light type</b>              | Infrared LED       |
| <b>Voltage type</b>            | DC                 |
| <b>Operating voltage (min)</b> | 18 V               |
| <b>Operating voltage (max)</b> | 30 V               |
| <b>Connection type</b>         | M12 connector plug |
| <b>UL</b>                      | ■                  |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number           | Detection range [mm] | Interface | Operating elements |
|------------------------|----------------------|-----------|--------------------|
| LS610-DA-P/F1          | 120000               | PROFIBUS  | Push-button        |
| LS610-DA-P/F2          | 120000               | PROFIBUS  | Push-button        |
| LS610-DA-P/F1/35       | 240000               | PROFIBUS  | Push-button        |
| LS610-DA-P/F2/35       | 240000               | PROFIBUS  | Push-button        |
| LS610-DA-P/F1/146      | 120000               | PROFIBUS  | Push-button        |
| LS610-DA-P/F2/146      | 120000               | PROFIBUS  | Push-button        |
| LS610-DA-IBS/F1        | 120000               | RS-422    |                    |
| LS610-DA-IBS/F2        | 120000               | RS-422    |                    |
| LS610-DA-IBS/F1/35     | 240000               | RS-422    |                    |
| LS610-DA-IBS/F2/35     | 240000               | RS-422    |                    |
| LS610-DA-IBS/F1/146    | 120000               | RS-422    |                    |
| LS610-DA-IBS/F2/146    | 120000               | RS-422    |                    |
| LS610-DA-IBS/F1/35/146 | 240000               | RS-422    |                    |
| LS610-DA-IBS/F2/35/146 | 240000               | RS-422    |                    |



### Accessories

|                     |   |
|---------------------|---|
| <b>ICZ-TR-V15B</b>  | Terminator for PROFIBUS   |
| <b>OMH-LS610-01</b> | Mounting bracket for optical data couplers                                  |
| <b>OMH-LS610-02</b> | Direct mounting set consisting of four M4 threaded inserts                  |
| <b>OMH-LS610-03</b> | Mounting bracket with deviation mirror for optical data couplers            |
| <b>OMH-LS610-32</b> | Mounting bracket for optical data couplers and distance measurement devices |
| <b>V15-G-PG9</b>    | Single-ended female cordset, M12, 5-pin, field-attachable                   |

# LS682 Series

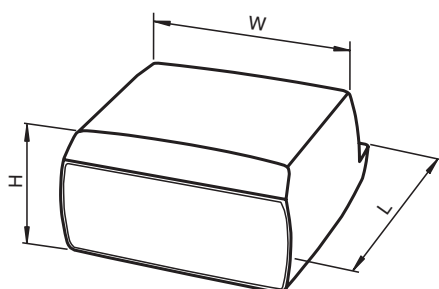


### Standard Technical Data

|                                |                  |
|--------------------------------|------------------|
| <b>Function principle</b>      | Thru-beam sensor |
| <b>Interface</b>               | Ethernet         |
| <b>Voltage type</b>            | DC               |
| <b>Operating voltage (min)</b> | 18 V             |
| <b>Operating voltage (max)</b> | 30 V             |
| <b>UL</b>                      | ■                |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number          | Detection range [mm] | Light type           |
|-----------------------|----------------------|----------------------|
| LS682-DA-EN/F1        | 150000               | Infrared laser diode |
| LS682-DA-EN/F2        | 150000               | Red laser diode      |
| LS682-DA-EN/F1/146    | 150000               | Infrared laser diode |
| LS682-DA-EN/F2/146    | 150000               | Red laser diode      |
| LS682-DA-EN/F1/35     | 300000               | Infrared laser diode |
| LS682-DA-EN/F2/35     | 300000               | Red laser diode      |
| LS682-DA-EN/F1/35/146 | 300000               | Infrared laser diode |
| LS682-DA-EN/F2/35/146 | 300000               | Red laser diode      |



### Accessories

|                     |  |
|---------------------|--|
| <b>OMH-LS610-01</b> | Mounting bracket for optical data couplers                       |
| <b>OMH-LS610-02</b> | Direct mounting set consisting of four M4 threaded inserts       |
| <b>OMH-LS610-03</b> | Mounting bracket with deviation mirror for optical data couplers |



# LS684 Series

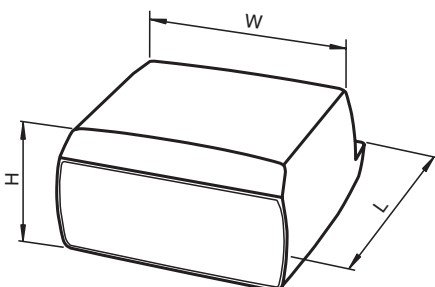


### Standard Technical Data

|                                |                  |
|--------------------------------|------------------|
| <b>Function principle</b>      | Thru-beam sensor |
| <b>Interface</b>               | Ethernet         |
| <b>Voltage type</b>            | DC               |
| <b>Operating voltage (min)</b> | 18 V             |
| <b>Operating voltage (max)</b> | 30 V             |
| <b>UL</b>                      | ■                |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number          | Detection range [mm] | Light type           |
|-----------------------|----------------------|----------------------|
| LS684-DA-EN/F1        | 150000               | Infrared laser diode |
| LS684-DA-EN/F2        | 150000               | Red laser diode      |
| LS684-DA-EN/F2/146    | 150000               | Red laser diode      |
| LS684-DA-EN/F1/146    | 150000               | Infrared laser diode |
| LS684-DA-EN/F1/35     | 300000               | Infrared laser diode |
| LS684-DA-EN/F2/35     | 300000               | Red laser diode      |
| LS684-DA-EN/F1/35/146 | 300000               | Infrared laser diode |
| LS684-DA-EN/F2/35/146 | 300000               | Red laser diode      |



### Accessories

|                     |  |
|---------------------|--|
| <b>OMH-LS610-01</b> | Mounting bracket for optical data couplers                       |
| <b>OMH-LS610-02</b> | Direct mounting set consisting of four M4 threaded inserts       |
| <b>OMH-LS610-03</b> | Mounting bracket with deviation mirror for optical data couplers |

## GL2/GL3/GL5 Series



### Standard Technical Data

|                                |                  |
|--------------------------------|------------------|
| <b>Function principle</b>      | Thru-beam sensor |
| <b>Light type</b>              | Infrared LED     |
| <b>Voltage type</b>            | DC               |
| <b>Operating voltage (min)</b> | 5 V              |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number      | Detection range [mm] | Output type | UB (max) | Connection type           | Length L | Width W | Height H | EAC | UL |
|-------------------|----------------------|-------------|----------|---------------------------|----------|---------|----------|-----|----|
| GL2-P/153         | 1.8                  | NPN         | 30       | Fixed cable               | 9.1      | 6.3     | 15.2     |     |    |
| GL3-L/153         | 3.1                  | NPN         | 30       | Fixed cable               | 18.4     | 6.3     | 15.9     |     |    |
| GL3-P/153         | 3.1                  | NPN         | 30       | Fixed cable               | 15.9     | 6.3     | 18.4     |     |    |
| GL3-T/153         | 3.1                  | NPN         | 30       | Fixed cable               | 15.9     | 23.6    | 12.9     |     |    |
| GL3-U/153         | 3.1                  | NPN         | 30       | Fixed cable               | 24.7     | 6.3     | 15.9     |     |    |
| GL5-F/28a/115     | 5                    | NPN         | 24       | Fixed cable               | 26.2     | 13.2    | 13.4     |     | ■  |
| GL5-F/43a/115     | 5                    | PNP         | 24       | Fixed cable               | 26.2     | 13.2    | 13.4     |     | ■  |
| GL5-F/43a/155     | 5                    | PNP         | 24       | Plug connector            | 27.2     | 13.2    | 13.4     |     | ■  |
| GL5-J/28a/155     | 5                    | NPN         | 24       | Plug connector            | 27.2     | 13.2    | 13.4     |     | ■  |
| GL5-J/43a/115     | 5                    | PNP         | 24       | Fixed cable               | 26.2     | 13.2    | 13.4     |     | ■  |
| GL5-J/43a/155     | 5                    | PNP         | 24       | Plug connector            | 27.2     | 13.2    | 13.4     |     | ■  |
| GL5-L/28a/115     | 5                    | NPN         | 24       | Fixed cable               | 15.5     | 18.5    | 26       |     | ■  |
| GL5-L/28a/155     | 5                    | NPN         | 24       | Plug connector            | 15.5     | 19.5    | 26       |     | ■  |
| GL5-L/43a/115     | 5                    | PNP         | 24       | Fixed cable               | 15.5     | 18.5    | 26       |     | ■  |
| GL5-L/43a/115-5M  | 5                    | PNP         | 24       | Fixed cable               | 15.5     | 18.5    | 26       |     | ■  |
| GL5-L/43a/115a    | 5                    | PNP         | 24       | Fixed cable with M8 plug  | 15.5     | 18.5    | 26       |     | ■  |
| GL5-L/43a/155     | 5                    | PNP         | 24       | Plug connector            | 15.5     | 19.5    | 26       | ■   | ■  |
| GL5-R/28a/115     | 5                    | NPN         | 24       | Fixed cable               | 26.2     | 13.2    | 13.4     |     | ■  |
| GL5-R/43a/115     | 5                    | PNP         | 24       | Fixed cable               | 26.2     | 13.2    | 13.4     |     | ■  |
| GL5-R/43a/115-5M  | 5                    | PNP         | 24       | Fixed cable               | 26.2     | 13.2    | 13.4     |     | ■  |
| GL5-R/43a/155     | 5                    | PNP         | 24       | Plug connector            | 27.2     | 13.2    | 13.4     |     | ■  |
| GL5-T/28a/115     | 5                    | NPN         | 24       | Fixed cable               | 26.2     | 26      | 13.4     |     | ■  |
| GL5-T/28a/155     | 5                    | NPN         | 24       | Plug connector            | 27.2     | 26      | 13.4     |     | ■  |
| GL5-T/43a/115     | 5                    | PNP         | 24       | Fixed cable               | 26.2     | 26      | 13.4     |     | ■  |
| GL5-T/43a/155     | 5                    | PNP         | 24       | Plug connector            | 27.2     | 26      | 13.4     |     | ■  |
| GL5-U/28a/115     | 5                    | NPN         | 24       | Fixed cable               | 26.2     | 7       | 25.4     |     | ■  |
| GL5-U/28a/155     | 5                    | NPN         | 24       | Plug connector            | 27.2     | 7       | 25.4     |     | ■  |
| GL5-U/43a/115     | 5                    | PNP         | 24       | Fixed cable               | 26.2     | 7       | 25.4     |     | ■  |
| GL5-U/43a/155     | 5                    | PNP         | 24       | Plug connector            | 27.2     | 7       | 25.4     |     | ■  |
| GL5-Y/25/46a/115e | 5                    | PNP         | 24       | Fixed cable with JST plug | 15.5     | 25.5    | 13.4     |     | ■  |
| GL5-Y/28a/115     | 5                    | NPN         | 24       | Fixed cable               | 15.5     | 25.5    | 13.4     |     | ■  |
| GL5-Y/28a/155     | 5                    | NPN         | 24       | Plug connector            | 15.5     | 26.6    | 13.4     |     | ■  |
| GL5-Y/43a/115     | 5                    | PNP         | 24       | Fixed cable               | 15.5     | 25.5    | 13.4     |     | ■  |
| GL5-Y/43a/115-5M  | 5                    | PNP         | 24       | Fixed cable               | 15.5     | 25.5    | 13.4     |     | ■  |
| GL5-Y/43a/155     | 5                    | PNP         | 24       | Plug connector            | 15.5     | 26.6    | 13.4     |     | ■  |

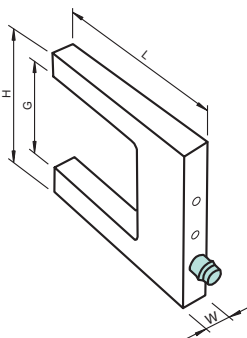
# GL Series



| Standard Technical Data |                   |
|-------------------------|-------------------|
| Function principle      | Thru-beam sensor  |
| Operating elements      | Potentiometer     |
| Voltage type            | DC                |
| Operating voltage (min) | 10 V              |
| Operating voltage (max) | 30 V              |
| Connection type         | M8 connector plug |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number         | Detection range [mm] | Light type      | Output type | UL |
|----------------------|----------------------|-----------------|-------------|----|
| GL10-IR/32/40a/98a   | 10                   | Infrared LED    | PNP         | ■  |
| GL10-RT/30/40a/98a   | 10                   | Red LED         | NPN         | ■  |
| GL10-RT/32/40a/98a   | 10                   | Red LED         | PNP         | ■  |
| GL20-IR/32/40a/98a   | 20                   | Infrared LED    | PNP         | ■  |
| GL20-LAS/32/40a/98a  | 20                   | Red laser diode | PNP         |    |
| GL20-RT/30/40a/98a   | 20                   | Red LED         | NPN         | ■  |
| GL20-RT/32/40a/98a   | 20                   | Red LED         | PNP         | ■  |
| GL30-IR/32/40a/98a   | 30                   | Infrared LED    | PNP         | ■  |
| GL30-LAS/32/40a/98a  | 30                   | Red laser diode | PNP         |    |
| GL30-RT/30/40a/98a   | 30                   | Red LED         | NPN         | ■  |
| GL30-RT/32/40a/95    | 30                   | Red LED         | PNP         | ■  |
| GL30-RT/32/40a/98a   | 30                   | Red LED         | PNP         | ■  |
| GL40-IR/32/40a/98a   | 40                   | Infrared LED    | PNP         | ■  |
| GL40-RT/32/40a/98a   | 40                   | Red LED         | PNP         | ■  |
| GL50-IR/32/40a/98a   | 50                   | Infrared LED    | PNP         | ■  |
| GL50-LAS/32/40a/98a  | 50                   | Red laser diode | PNP         |    |
| GL50-RT/30/40a/98a   | 50                   | Red LED         | NPN         | ■  |
| GL50-RT/32/40a/98a   | 50                   | Red LED         | PNP         | ■  |
| GL80-IR/32/40a/98a   | 80                   | Infrared LED    | PNP         | ■  |
| GL80-LAS/32/40a/98a  | 80                   | Red laser diode | PNP         |    |
| GL80-RT/30/40a/98a   | 80                   | Red LED         | NPN         | ■  |
| GL80-RT/32/40a/98a   | 80                   | Red LED         | PNP         | ■  |
| GL120-LAS/32/40a/98a | 120                  | Red laser diode | PNP         |    |
| GL121-IR/32/40a/98a  | 121                  | Infrared LED    | PNP         | ■  |
| GL121-RT/30/40a/98a  | 121                  | Red LED         | NPN         | ■  |
| GL121-RT/32/40a/98a  | 121                  | Red LED         | PNP         | ■  |
| GL220-IR/32/40a/98a  | 220                  | Infrared LED    | PNP         | ■  |
| GL220-LAS/32/40a/98a | 220                  | Red laser diode | PNP         |    |
| GL220-RT/30/40a/98a  | 220                  | Red LED         | NPN         | ■  |
| GL220-RT/32/40a/98a  | 220                  | Red LED         | PNP         | ■  |



# GLP Series

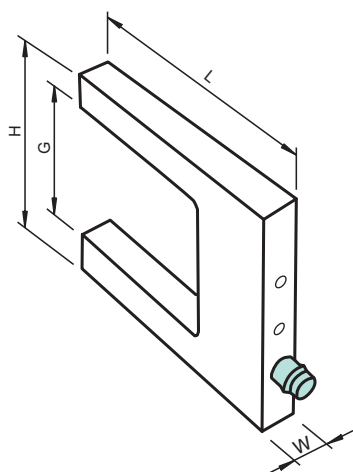


### Standard Technical Data

|                                |                   |
|--------------------------------|-------------------|
| <b>Function principle</b>      | Thru-beam sensor  |
| <b>Light type</b>              | Red LED           |
| <b>Operating elements</b>      | Push-button       |
| <b>Voltage type</b>            | DC                |
| <b>Operating voltage (min)</b> | 10 V              |
| <b>Operating voltage (max)</b> | 30 V              |
| <b>Connection type</b>         | M8 connector plug |
| <b>UL</b>                      | ■                 |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number              | Detection range [mm] | Output type |
|---------------------------|----------------------|-------------|
| GLP30-RT/40b/102/123/143  | 30                   | NPN         |
| GLP30-RT/40b/102/156      | 30                   | NPN         |
| GLP30-RT/40b/103/123/143  | 30                   | PNP         |
| GLP30-RT/40b/103/156      | 30                   | PNP         |
| GLP50-RT/40b/102/123/143  | 50                   | NPN         |
| GLP50-RT/40b/102/156      | 50                   | NPN         |
| GLP50-RT/40b/103/123/143  | 50                   | PNP         |
| GLP50-RT/40b/103/156      | 50                   | PNP         |
| GLP80-RT/40b/102/123/143  | 80                   | NPN         |
| GLP80-RT/40b/102/156      | 80                   | NPN         |
| GLP80-RT/40b/103/123/143  | 80                   | PNP         |
| GLP80-RT/40b/103/156      | 80                   | PNP         |
| GLP120-RT/40b/102/123/143 | 120                  | NPN         |
| GLP120-RT/40b/102/156     | 120                  | NPN         |
| GLP120-RT/40b/103/123/143 | 120                  | PNP         |
| GLP120-RT/40b/103/156     | 120                  | PNP         |



### Accessories

|                          |   |
|--------------------------|---|
| <b>OMH-K03</b>           | Mounting clamp for sensors with dovetail groove   |
| <b>V3-GM-BK2M-PUR-U</b>  | Single-ended female cordset, M8, 3-pin, PUR cable |
| <b>V3-WM-2M-PUR</b>      | Single-ended female cordset, M8, 3-pin, PUR cable |
| <b>V3-WM-BK2M-PUR-U</b>  | Single-ended female cordset, M8, 3-pin, PUR cable |
| <b>V31-GM-2M-PUR</b>     | Single-ended female cordset, M8, 4-pin, PUR cable |
| <b>V31-GM-BK2M-PUR-U</b> | Single-ended female cordset, M8, 4-pin, PUR cable |
| <b>V31-WM-2M-PUR</b>     | Single-ended female cordset, M8, 4-pin, PUR cable |
| <b>V31-WM-BK2M-PUR-U</b> | Single-ended female cordset, M8, 4-pin, PUR cable |

## GL-ES Series



### Standard Technical Data

|                                |                  |
|--------------------------------|------------------|
| <b>Function principle</b>      | Thru-beam sensor |
| <b>Detection range</b>         | 24 mm            |
| <b>Light type</b>              | Infrared LED     |
| <b>Output type</b>             | PNP              |
| <b>Voltage type</b>            | DC               |
| <b>Operating voltage (min)</b> | 10 V             |
| <b>Operating voltage (max)</b> | 30 V             |
| <b>Connection type</b>         | Fixed cable      |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

### Model number

GL-ES-IR/115/120

## RAL Series

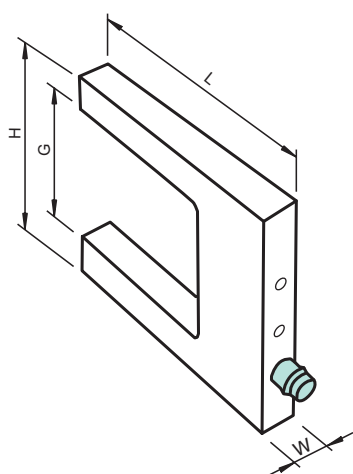


### Standard Technical Data

|                                |                   |
|--------------------------------|-------------------|
| <b>Function principle</b>      | Thru-beam sensor  |
| <b>Light type</b>              | Infrared LED      |
| <b>Output type</b>             | PNP               |
| <b>Operating elements</b>      | Potentiometer     |
| <b>Voltage type</b>            | DC                |
| <b>Operating voltage (min)</b> | 19.2 V            |
| <b>Operating voltage (max)</b> | 28.8 V            |
| <b>Connection type</b>         | M8 connector plug |
| <b>Housing width W</b>         | 20 mm             |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number    | Detection range [mm] | Length L | Height H |
|-----------------|----------------------|----------|----------|
| RAL50-IR/32/98  | 50                   | 81       | 90       |
| RAL70-IR/32/98  | 70                   | 105      | 110      |
| RAL100-IR/32/98 | 100                  | 135      | 140      |
| RAL150-IR/32/98 | 150                  | 185      | 190      |



### Accessories

|                     |   |
|---------------------|---|
| <b>V3-WM-2M-PUR</b> | Single-ended female cordset, M8, 3-pin, PUR cable |
|---------------------|---|



# DK10 Series

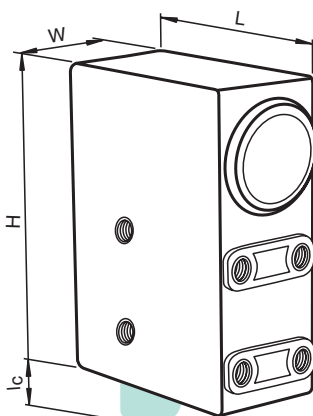


### Standard Technical Data

|                                |                    |
|--------------------------------|--------------------|
| <b>Light type</b>              | Red laser diode    |
| <b>Operating elements</b>      | Potentiometer      |
| <b>Voltage type</b>            | DC                 |
| <b>Operating voltage (min)</b> | 10 V               |
| <b>Operating voltage (max)</b> | 30 V               |
| <b>Connection type</b>         | M12 connector plug |
| <b>Housing length L</b>        | 60.8 mm            |
| <b>Housing width W</b>         | 33 mm              |
| <b>Housing height H</b>        | 85.6 mm            |
| <b>UL</b>                      | ■                  |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number              | Detection range [mm] | Output type   |
|---------------------------|----------------------|---------------|
| DK10-LAS/9S50/76a/110/124 | 300                  | 1 x push-pull |
| DK10-LAS/49               | 300                  | PNP/NPN       |
| DK10-LAS/76a/110/124      | 300                  | 1 x push-pull |
| DK10-LAS/76a/79b/110/124  | 300                  | 1 x push-pull |
| DK10-LAS/9S20             | 300                  | 1 x push-pull |
| DK10-LAS/35/79b           | 800                  | 1 x push-pull |
| DK10-LAS/35/49            | 800                  | PNP/NPN       |
| DK10-LAS-54/76/110/124    | 10000                | 1 x push-pull |



### Accessories

|                     |  |
|---------------------|--|
| <b>OMH-DK</b>       | Right-angled mounting bracket                      |
| <b>OMH-DK-1</b>     | Flat mounting bracket                              |
| <b>V15-G-5M-PVC</b> | Single-ended female cordset, M12, 5-pin, PVC cable |
| <b>V15-W-5M-PVC</b> | Single-ended female cordset, M12, 5-pin, PVC cable |

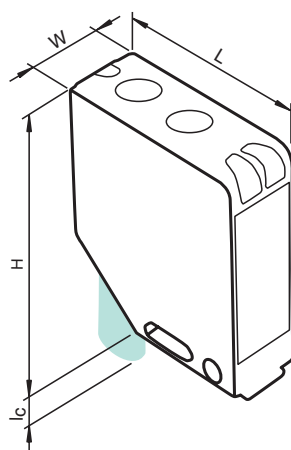
# DK12 Series



| Standard Technical Data |                    |
|-------------------------|--------------------|
| Detection range         | 11 mm              |
| Light type              | Green/red/blue LED |
| Output type             | 2 x push-pull      |
| Operating elements      | Potentiometer      |
| Voltage type            | DC                 |
| Operating voltage (min) | 10 V               |
| Operating voltage (max) | 30 V               |
| Connection type         | M12 connector plug |
| Housing length L        | 15 mm              |
| Housing width W         | 41.5 mm            |
| Housing height H        | 49 mm              |
| UL                      | ■                  |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number        | Interface |
|---------------------|-----------|
| DK12-11-IO/92/136   | IO-Link   |
| DK12-11-IO/A/92/136 | IO-Link   |
| DK12-11/124/136     |           |
| DK12-11/A/124/136   |           |



| Accessories          |  |
|----------------------|--|
| IO-Link-Master02-USB | IO-Link master, supply via USB port or separate power supply, LED indicators, M12 plug for sensor connection |

# DK20 Series

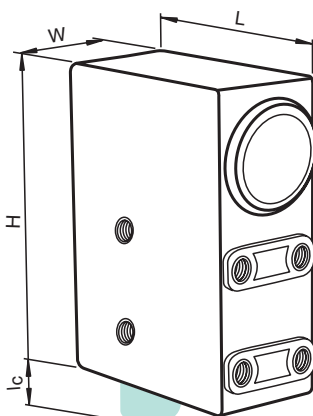


### Standard Technical Data

|                                |                    |
|--------------------------------|--------------------|
| <b>Operating elements</b>      | Push-button        |
| <b>Voltage type</b>            | DC                 |
| <b>Operating voltage (min)</b> | 10 V               |
| <b>Operating voltage (max)</b> | 30 V               |
| <b>Connection type</b>         | M12 connector plug |
| <b>Housing length L</b>        | 60.8 mm            |
| <b>Housing width W</b>         | 33 mm              |
| <b>Housing height H</b>        | 85.6 mm            |
| <b>UL</b>                      | ■                  |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number          | Detection range [mm] | Light type         | Output type   |
|-----------------------|----------------------|--------------------|---------------|
| DK20/9S50             | 9.5                  | Green/red/blue LED | 1 x push-pull |
| DK20/49               | 9.5                  | Green/red/blue LED | PNP/NPN       |
| DK20-9,5/B/110/124    | 9.5                  | Green/red/blue LED | 1 x push-pull |
| DK20-9,5/A/110/124    | 9.5                  | Green/red/blue LED | 1 x push-pull |
| DK20-9,5/9S20/110/124 | 9.5                  | Green/red/blue LED | 1 x push-pull |
| DK20-9,5/79B/110/124  | 9.5                  | Green/red/blue LED | 1 x push-pull |
| DK20-9,5/110/124      | 9.5                  | Green/red/blue LED | 1 x push-pull |
| DK20-25/110/124       | 25                   | Green/red/blue LED | 1 x push-pull |
| DK20-25/A/110/124     | 25                   | Green/red/blue LED | 1 x push-pull |
| DK20/35A/9S20         | 25                   | Green/red/blue LED | 1 x push-pull |
| DK20/35B              | 50                   | Red LED            | 1 x push-pull |
| DK20/35B/79B          | 50                   | Red LED            | 1 x push-pull |



### Accessories

|                     |  |
|---------------------|--|
| <b>OMH-DK</b>       | Right-angled mounting bracket                      |
| <b>OMH-DK-1</b>     | Flat mounting bracket                              |
| <b>V15-G-5M-PVC</b> | Single-ended female cordset, M12, 5-pin, PVC cable |
| <b>V15-W-5M-PVC</b> | Single-ended female cordset, M12, 5-pin, PVC cable |

## DK21 Series

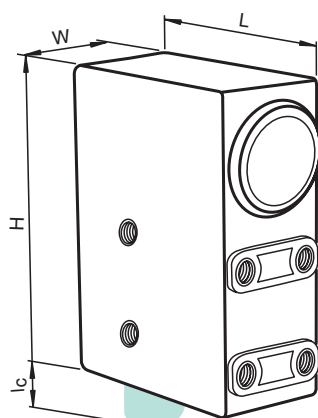


### Standard Technical Data

|                                |                    |
|--------------------------------|--------------------|
| <b>Light type</b>              | Green/red/blue LED |
| <b>Output type</b>             | 1 x push-pull      |
| <b>Operating elements</b>      | Push-button        |
| <b>Voltage type</b>            | DC                 |
| <b>Operating voltage (min)</b> | 10 V               |
| <b>Operating voltage (max)</b> | 30 V               |
| <b>Connection type</b>         | M12 connector plug |
| <b>Housing length L</b>        | 60.8 mm            |
| <b>Housing width W</b>         | 33 mm              |
| <b>Housing height H</b>        | 85.6 mm            |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number          | Detection range [mm] |
|-----------------------|----------------------|
| DK21-9,5/A/110/124    | 9.5                  |
| DK21-9,5/110/124      | 9.5                  |
| DK21-9,5/9S50/110/124 | 9.5                  |
| DK21-25/110/124       | 25                   |



### Accessories

|                     |  |
|---------------------|--|
| <b>OMH-DK</b>       | Right-angled mounting bracket                      |
| <b>OMH-DK-1</b>     | Flat mounting bracket                              |
| <b>V15-W-5M-PVC</b> | Single-ended female cordset, M12, 5-pin, PVC cable |

## DK34 Series



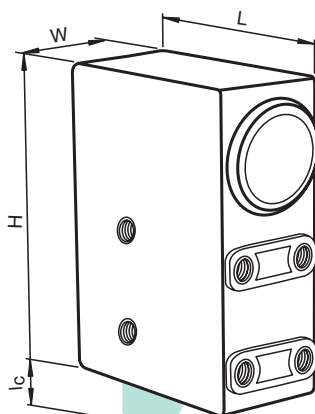
### Standard Technical Data

|                                |                    |
|--------------------------------|--------------------|
| <b>Detection range</b>         | 9.5 mm             |
| <b>Light type</b>              | Green/red/blue LED |
| <b>Output type</b>             | 1 x push-pull      |
| <b>Operating elements</b>      | Push-button        |
| <b>Voltage type</b>            | DC                 |
| <b>Operating voltage (min)</b> | 10 V               |
| <b>Operating voltage (max)</b> | 30 V               |
| <b>Connection type</b>         | M12 connector plug |
| <b>Housing length L</b>        | 60.8 mm            |
| <b>Housing width W</b>         | 33 mm              |
| <b>Housing height H</b>        | 85.6 mm            |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

### Model number

DK34-9,5/110/124



### Accessories

|                     |  |
|---------------------|--|
| <b>V15-W-5M-PVC</b> | Single-ended female cordset, M12, 5-pin, PVC cable |
|---------------------|--|

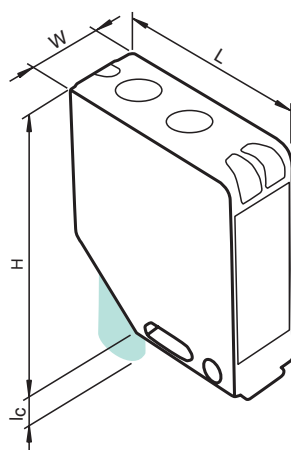
# DF12 Series



| Standard Technical Data |                    |
|-------------------------|--------------------|
| Detection range         | 11 mm              |
| Light type              | Green/red/blue LED |
| Output type             | 3 x push-pull      |
| Operating elements      | Potentiometer      |
| Voltage type            | DC                 |
| Operating voltage (min) | 10 V               |
| Operating voltage (max) | 30 V               |
| Connection type         | M12 connector plug |
| Housing length L        | 15 mm              |
| Housing width W         | 41.5 mm            |
| Housing height H        | 49 mm              |
| UL                      | ■                  |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number            | Timer function                                  |
|-------------------------|---|
| DF12-11-3K/145/151      |   |
| DF12-11-3K/9s20/145/151 | Impulse-type switch-off delay time relay, 20 ms |



| Accessories      |  |
|------------------|--|
| V19-G-2M-PUR-ABG | Single-ended female cordset, M12, 8-pin, shielded, PUR cable |



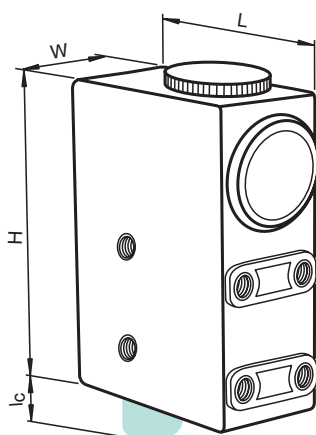
## DF20 Series



| Standard Technical Data |                    |
|-------------------------|--------------------|
| Light type              | Green/red/blue LED |
| Output type             | PNP/NPN            |
| Operating elements      | Push-button        |
| Voltage type            | DC                 |
| Operating voltage (min) | 10 V               |
| Operating voltage (max) | 30 V               |
| Connection type         | M12 connector plug |
| Housing length L        | 60.8 mm            |
| Housing width W         | 33 mm              |
| Housing height H        | 85.5 mm            |

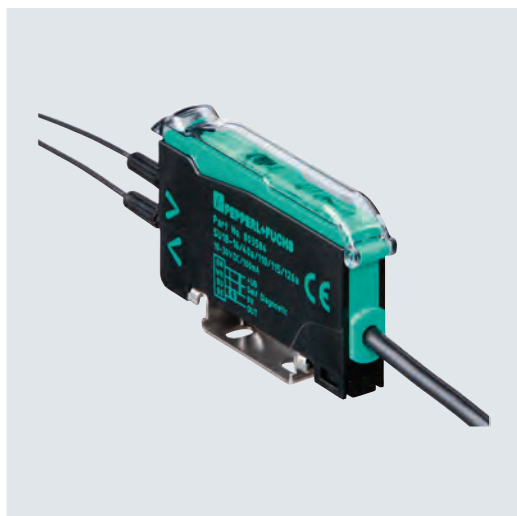
For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number     | Detection range [mm] |
|------------------|----------------------|
| DF20/B/49/124    | 9.5                  |
| DF20/49/124      | 9.5                  |
| DF20/9S20/49/124 | 9.5                  |
| DF20/35A/49/124  | 25                   |



| Accessories  |  |
|--------------|--|
| V15-G-2M-PUR | Single-ended female cordset, M12, 5-pin, PUR cable |

# SU18 Series

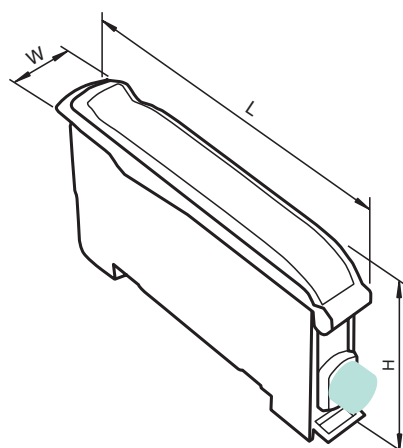


### Standard Technical Data

|                                |         |
|--------------------------------|---------|
| <b>Light type</b>              | Red LED |
| <b>Voltage type</b>            | DC      |
| <b>Operating voltage (min)</b> | 10 V    |
| <b>Operating voltage (max)</b> | 30 V    |
| <b>Housing length L</b>        | 62.3 mm |
| <b>Housing width W</b>         | 9 mm    |
| <b>Housing height H</b>        | 34.5 mm |
| <b>UL</b>                      | ■       |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

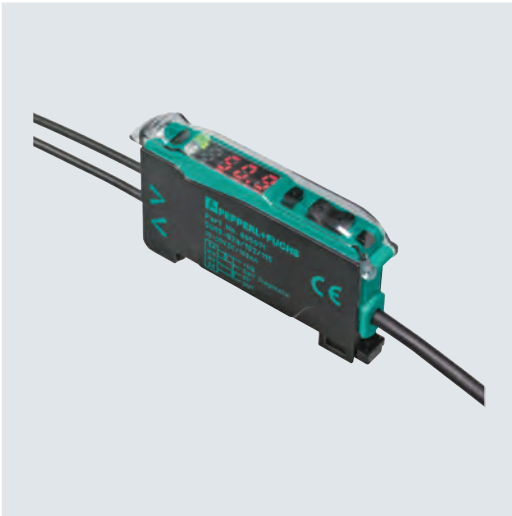
| Model number                 | Detection range [mm] | Operating elements | Output type   | Connection type          |
|------------------------------|----------------------|--------------------|---------------|--------------------------|
| SU18-16/40a/102/115/126a     | 150                  | Potentiometer      | NPN           | Fixed cable              |
| SU18-16/40a/102/115a/126a    | 150                  | Potentiometer      | NPN           | Fixed cable with M8 plug |
| SU18-16/40a/110/115/126a     | 150                  | Potentiometer      | 1 x push-pull | Fixed cable              |
| SU18-16/40a/110/115a         | 150                  | Potentiometer      | 1 x push-pull | Fixed cable with M8 plug |
| SU18-16/40a/110/115a/126a    | 150                  | Potentiometer      | 1 x push-pull | Fixed cable with M8 plug |
| SU18-16/40a/115a/120         | 150                  | Potentiometer      | PNP           | Fixed cable with M8 plug |
| SU18-40a/102/115/123         | 150                  | Push-button        | NPN           | Fixed cable              |
| SU18-40a/102/115/126a        | 150                  | Push-button        | NPN           | Fixed cable              |
| SU18-40a/102/115a/123        | 150                  | Push-button        | NPN           | Fixed cable with M8 plug |
| SU18-40a/110/115/123         | 150                  | Push-button        | 1 x push-pull | Fixed cable              |
| SU18-40a/110/115/126a        | 150                  | Push-button        | 1 x push-pull | Fixed cable              |
| SU18-40a/110/115a            | 150                  | Push-button        | 1 x push-pull | Fixed cable with M8 plug |
| SU18-40a/110/115a/123        | 150                  | Push-button        | 1 x push-pull | Fixed cable with M8 plug |
| SU18-40a/110/115a/126a       | 150                  | Push-button        | 1 x push-pull | Fixed cable with M8 plug |
| SU18-16/35/40a/102/115/126a  | 460                  | Potentiometer      | NPN           | Fixed cable              |
| SU18-16/35/40a/110/115/126a  | 460                  | Potentiometer      | 1 x push-pull | Fixed cable              |
| SU18-16/35/40a/110/115a      | 460                  | Potentiometer      | 1 x push-pull | Fixed cable with M8 plug |
| SU18-16/35/40a/110/115a/126a | 460                  | Potentiometer      | 1 x push-pull | Fixed cable with M8 plug |
| SU18-35/40a/102/115/123      | 460                  | Push-button        | NPN           | Fixed cable              |
| SU18-35/40a/102/115/126a     | 460                  | Push-button        | NPN           | Fixed cable              |
| SU18-35/40a/110/115/123      | 460                  | Push-button        | 1 x push-pull | Fixed cable              |
| SU18-35/40a/110/115/126a     | 460                  | Push-button        | 1 x push-pull | Fixed cable              |
| SU18-35/40a/110/115a/126a    | 460                  | Push-button        | 1 x push-pull | Fixed cable with M8 plug |



### Accessories

Suitable optical fibers can be found in the relevant product datasheet

# SU19 Series

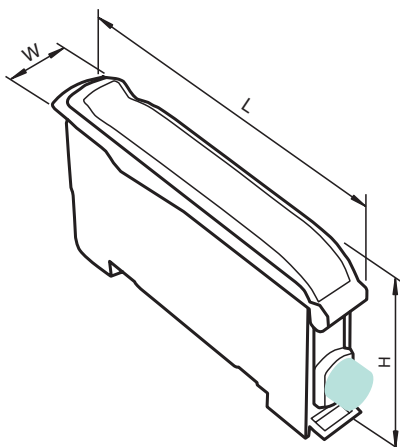


### Standard Technical Data

|                         |               |
|-------------------------|---------------|
| Detection range         | 150 mm        |
| Light type              | Red LED       |
| Output type             | 1 x push-pull |
| Operating elements      | Push-button   |
| Voltage type            | DC            |
| Operating voltage (min) | 10 V          |
| Operating voltage (max) | 30 V          |
| Housing length L        | 62.3 mm       |
| Housing width W         | 9 mm          |
| Housing height H        | 34.5 mm       |
| UL                      | ■             |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number       | Connection type          |
|--------------------|--------------------------|
| SU19.1/110/115     | Fixed cable              |
| SU19.1/110/115a    | Fixed cable with M8 plug |
| SU19/110/115/123   | Fixed cable              |
| SU19/110/115a/126a | Fixed cable with M8 plug |



### Accessories

Suitable optical fibers can be found in the relevant product datasheet

# MLV41-LL Series

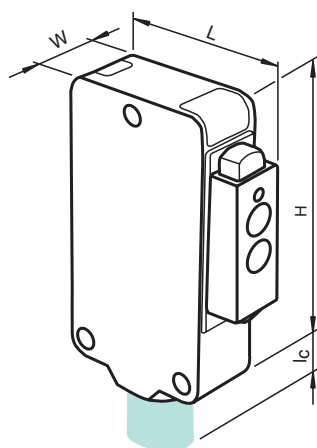


### Standard Technical Data

|                                |               |
|--------------------------------|---------------|
| <b>Output type</b>             | 2 x push-pull |
| <b>Operating elements</b>      | Potentiometer |
| <b>Voltage type</b>            | DC            |
| <b>Operating voltage (min)</b> | 10 V          |
| <b>Operating voltage (max)</b> | 30 V          |
| <b>Housing length L</b>        | 13.6 mm       |
| <b>Housing width W</b>         | 31 mm         |
| <b>Housing height H</b>        | 56.5 mm       |
| <b>UL</b>                      | ■             |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number           | Detection range [mm] | Light type   | Interface | Connection type    |
|------------------------|----------------------|--------------|-----------|--------------------|
| MLV41-LL-RT/95/136     | 36                   | Red LED      |           | M8 connector plug  |
| MLV41-LL-RT-IO/115/136 | 36                   | Red LED      | IO-Link   | Fixed cable        |
| MLV41-LL-RT-IO/92/136  | 36                   | Red LED      | IO-Link   | M12 connector plug |
| MLV41-LL-RT-IO/95/136  | 36                   | Red LED      | IO-Link   | M8 connector plug  |
| MLV41-LL-RT/115/136    | 36                   | Red LED      |           | Fixed cable        |
| MLV41-LL-RT/92/136     | 36                   | Red LED      |           | M12 connector plug |
| MLV41-LL-IR-IO/115/136 | 55                   | Infrared LED | IO-Link   | Fixed cable        |
| MLV41-LL-IR-IO/92/136  | 55                   | Infrared LED | IO-Link   | M12 connector plug |
| MLV41-LL-IR-IO/95/136  | 55                   | Infrared LED | IO-Link   | M8 connector plug  |
| MLV41-LL-IR/115/136    | 55                   | Infrared LED |           | Fixed cable        |
| MLV41-LL-IR/92/136     | 55                   | Infrared LED |           | M12 connector plug |
| MLV41-LL-IR/95/136     | 55                   | Infrared LED |           | M8 connector plug  |
| MLV41-LL-IR/70/136     | 55                   | Infrared LED |           | M9 connector plug  |



### Accessories

Suitable optical fibers can be found in the relevant product datasheet

|             |                             |
|-------------|-----------------------------|
| V1-G-2M-PUR | Single-ended female cordset |
| V1-W-2M-PUR | Single-ended female cordset |

# VL18-LL Series

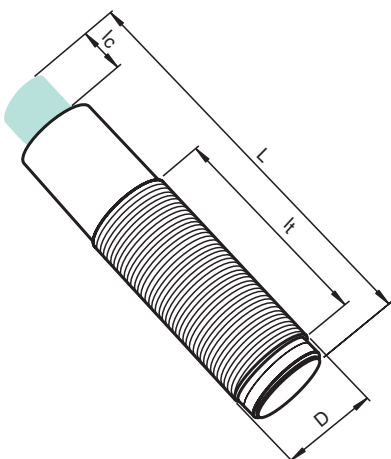


### Standard Technical Data

|                         |                    |
|-------------------------|--------------------|
| Detection range         | 70 mm              |
| Light type              | Red LED            |
| Operating elements      | Potentiometer      |
| Voltage type            | DC                 |
| Operating voltage (min) | 10 V               |
| Operating voltage (max) | 30 V               |
| Connection type         | M12 connector plug |
| Housing length L        | 65 mm              |
| Housing diameter D      | 18 mm              |
| UL                      | ■                  |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number         | Output type   |
|----------------------|---------------|
| VL18LL-M/30/40a/118  | NPN           |
| VL18LL-M/32/40a/118  | PNP           |
| VL18LL-M/40a/118/128 | 1 x push-pull |

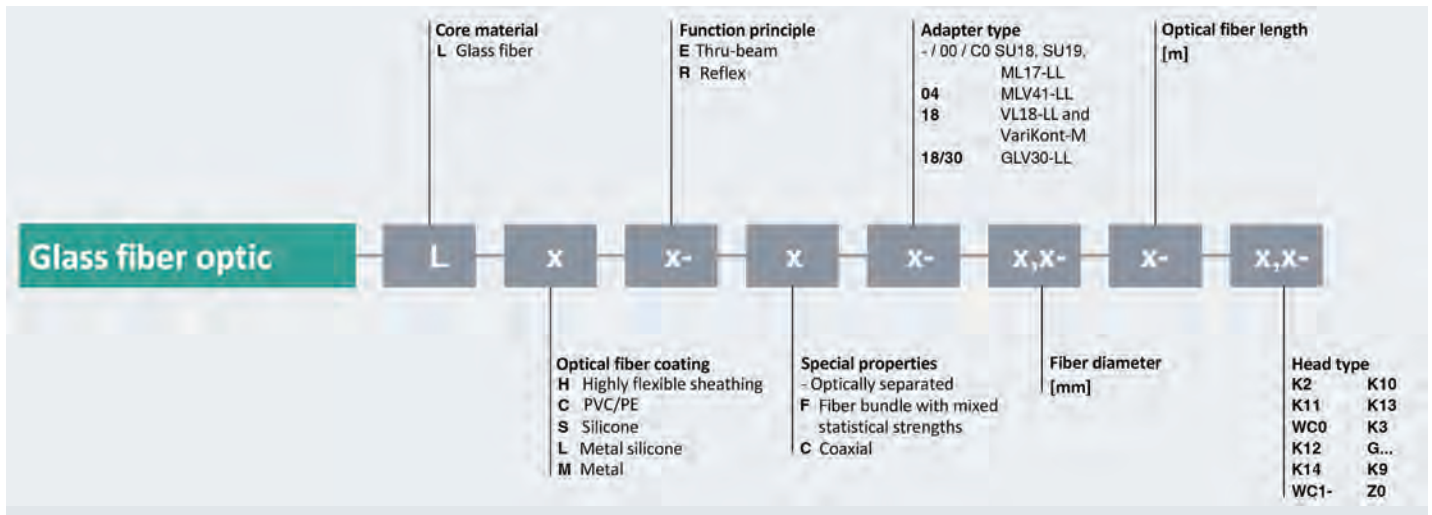


### Accessories

Suitable optical fibers can be found in the relevant product datasheet

|             |                             |
|-------------|-----------------------------|
| V1-G-2M-PUR | Single-ended female cordset |
|-------------|-----------------------------|

# Glass Fiber Optic



For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

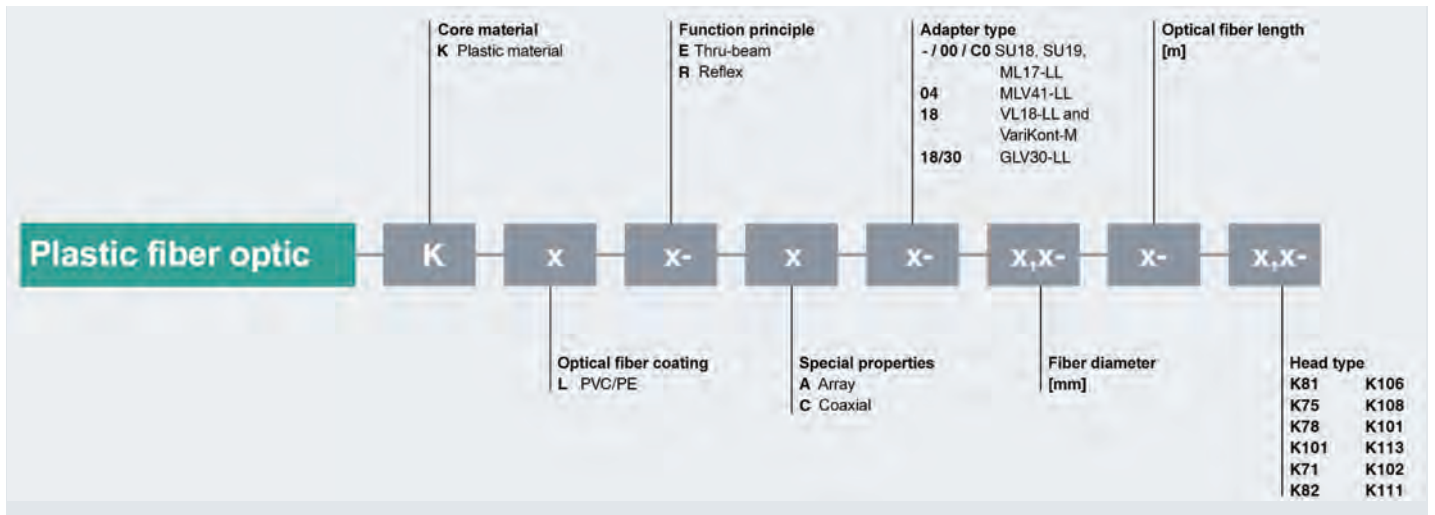
## Brief Description

Glass fiber optics are made up of multiple individual fibers with a diameter of approximately 50 µm each. Stainless steel, PVC, metal and silicone, or silicone sheathing can be selected depending on the application. The low optical attenuation of glass fibers compared to plastic fibers enables greater sensing and detection ranges. The rugged mechanical design of the stainless steel sheathing means the cables can be used at temperatures of up to 200 °C.

| Accessories      |  |
|------------------|--|
| <b>K-LA01</b>    | Collimating lens, up to four times higher detection range, M2.6 thread |
| <b>K-LA02</b>    | Collimating lens, side optical face, M2.6 thread                       |
| <b>OMH-LL-M6</b> | Mounting bracket for optical fiber, M6 thread                          |



# Plastic Fiber Optic



For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

## Brief Description

Plastic fiber optics are made up of PVC-sheathed fibers. The fiber optic material is lightweight and very flexible, so it can be used on machines with fast-moving parts. One great advantage is that the fibers can be cut to length individually.

| Accessories      |   |
|------------------|---|
| <b>K-LA02</b>    | Collimating lens, side optical face, M2.6 thread                      |
| <b>K-LA03</b>    | Focusing lens, light spot size approx. 0.5 mm at 8 mm, M3 thread      |
| <b>K-LA06</b>    | Collimating lens, up to eight times higher detection range, M4 thread |
| <b>KM4-0,5</b>   | Metal protection for plastic fiber optic M4 x 0.5 m.                  |
| <b>KM4-1,0</b>   | Metal protection for plastic fiber optic M4 x 1.0 m.                  |
| <b>KM6-0,5</b>   | Metal protection for plastic fiber optic M6 x 0.5 m.                  |
| <b>KM6-1,0</b>   | Metal protection for plastic fiber optic M6 x 1.0 m.                  |
| <b>OMH-LL-M6</b> | Mounting bracket for optical fiber, M6 thread                         |

# Sensors for Safety Applications

## Application-Oriented with Uncompromising Safety

Safety-certified Pepperl+Fuchs sensors offer the highest quality standards and reliability for protecting people and machines. The portfolio, which has been specifically tailored to functional safety requirements, also offers excellent investment security and outstanding plant availability.

### Optimal Protection for over 30 Years

Our optimized product portfolio—which is application oriented and focused on the essentials—is based on more than three decades of experience, a high level of application expertise, and continuous dialog with our customers.

Perfectly coordinated to meet the requirements of automated processes, Pepperl+Fuchs safety sensors always combine safety and productivity. Fast and easy commissioning across the entire portfolio allows for particularly cost-efficient solutions. At the same time, the high reliability of the sensors not only ensures that the operator is optimally protected, but also ensures that processes continue uninterrupted and therefore leads to increased plant availability.

### Traditional Connection Technology for Outstanding Investment Security

In the field of safety engineering, Pepperl+Fuchs has consistently focused on solutions with traditional connection technology. This reduces not only potential sources of fault, but also provides for a future-proof supply of spare parts and thus a high level of investment and future security.

Furthermore, Pepperl+Fuchs safety sensors meet the highest safety requirements, up to and including PL e, Cat. 4 and SIL 3. With approvals such as cULus, they are also certified for international use.

### Safety Sensors from Pepperl+Fuchs



Single-beam safety light barriers



Multi-beam safety light barriers



Safety control units

# Sensors for Safety Applications

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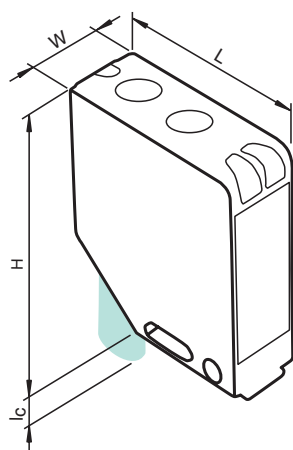
# SLA12 Series



| Standard Technical Data |                    |
|-------------------------|--------------------|
| Function principle      | Thru-beam sensor   |
| Light type              | Red laser diode    |
| SIL                     | 3                  |
| Connection type         | M12 connector plug |
| Housing length L        | 41.5 mm            |
| Housing width W         | 15 mm              |
| Housing height H        | 49 mm              |
| TÜV                     | ■                  |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number       | Detection range [mm] |
|--------------------|----------------------|
| SLA12-LAS-T/124    | 12000                |
| SLA12-LAS-T/35/124 | 30000                |



| Accessories   |   |
|---------------|---|
| OMH-K01       | Mounting clamp for sensors with dovetail groove |
| OMH-MLV12-HWK | Mounting bracket for MLV12 series sensors       |
| SB4-OR-4CP    | Safety control unit                             |
| SB4-OR-4CP-4C | Safety control unit                             |
| SB4-OR-4CP-4M | Safety control unit                             |

# SLA29 Series

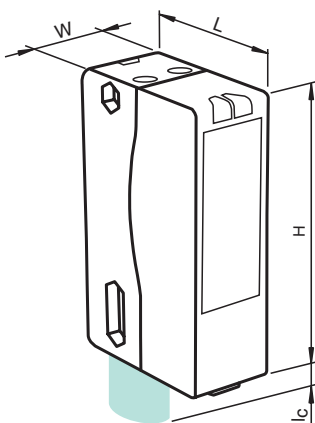


### Standard Technical Data

|                           |                  |
|---------------------------|------------------|
| <b>Function principle</b> | Thru-beam sensor |
| <b>Light type</b>         | Red LED          |
| <b>SIL</b>                | 3                |
| <b>Housing width W</b>    | 25.8 mm          |
| <b>Housing height H</b>   | 88 mm            |
| <b>TÜV</b>                | ■                |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number       | Detection range [mm] | Connection type      | Length L | UL |
|--------------------|----------------------|----------------------|----------|----|
| SLA29/105/106      | 30000                | M12 connector plug   | 54.3     | ■  |
| SLA29/116          | 30000                | Terminal compartment | 65.5     |    |
| SLA29/73c          | 30000                | M12 connector plug   | 54.3     |    |
| SLA29/35/105/106   | 65000                | M12 connector plug   | 54.3     | ■  |
| SLA29/35/116 R=65m | 65000                | Terminal compartment | 65.5     |    |
| SLA29/35/73c R=65m | 65000                | M12 connector plug   | 54.3     |    |



### Accessories

|                      |   |
|----------------------|---|
| <b>OMH-05</b>        | Mounting aid for circular profiles $\varnothing$ 12 mm or flat profiles 1.5 mm ... 3 mm |
| <b>OMH-22</b>        | Mounting bracket  |
| <b>SB4-OR-4CP</b>    | Safety control unit   |
| <b>SB4-OR-4CP-4C</b> | Safety control unit   |
| <b>SB4-OR-4CP-4M</b> | Safety control unit   |



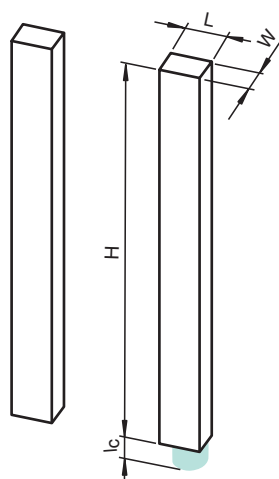
# SLCS Series



| Standard Technical Data |                    |
|-------------------------|--------------------|
| Function principle      | Thru-beam sensor   |
| Detection range         | 8000 mm            |
| Light type              | Infrared LED       |
| Voltage type            | DC                 |
| Operating voltage (min) | 19.2 V             |
| Operating voltage (max) | 31.2 V             |
| SIL                     | 3                  |
| Connection type         | M12 connector plug |
| Housing length L        | 30 mm              |
| Housing width W         | 20 mm              |
| TÜV                     | ■                  |
| UL                      | ■                  |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number | Optical resolution | UL |
|--------------|--------------------|----|
| SLCS14       | 14 mm              | ■  |
| SLCS30       | 30 mm              | ■  |
| SLCS60       | 60 mm              | ■  |
| SLCS90       | 90 mm              | ■  |



| Accessories       |                     |
|-------------------|---------------------|
| AA SLCT-01        | Alignment aid       |
| OMH-SLCT-03       | Mounting aid        |
| OMH-SLCT-05       | Mounting aid        |
| OMH-SLCT-10       | Mounting aid        |
| OMH-SLCT-11       | Mounting aid        |
| OMH-SLCT-120-2100 | Safety accessories  |
| SB4-OR-4XP        | Safety control unit |
| SB4-OR-4XP-4M     | Safety control unit |



# SLCT Series

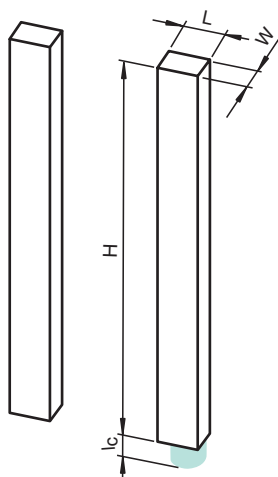


### Standard Technical Data

|                                |                    |
|--------------------------------|--------------------|
| <b>Function principle</b>      | Thru-beam sensor   |
| <b>Detection range</b>         | 8000 mm            |
| <b>Light type</b>              | Infrared LED       |
| <b>Voltage type</b>            | DC                 |
| <b>Operating voltage (min)</b> | 19.2 V             |
| <b>Operating voltage (max)</b> | 31.2 V             |
| <b>SIL</b>                     | 1                  |
| <b>Connection type</b>         | M12 connector plug |
| <b>Housing length L</b>        | 30 mm              |
| <b>Housing width W</b>         | 20 mm              |
| <b>TÜV</b>                     | ■                  |
| <b>UL</b>                      | ■                  |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number | Optical resolution |
|--------------|--------------------|
| SLCT14       | 14 mm              |
| SLCT30       | 30 mm              |
| SLCT60       | 60 mm              |
| SLCT90       | 90 mm              |



### Accessories

|                          |                     |
|--------------------------|---------------------|
| <b>OMH-SLCT-03</b>       | Mounting aid        |
| <b>OMH-SLCT-06</b>       | Mounting aid        |
| <b>OMH-SLCT-10</b>       | Mounting aid        |
| <b>OMH-SLCT-100-2100</b> | Safety accessories  |
| <b>OMH-SLCT-120-2100</b> | Safety accessories  |
| <b>OMH-SLCT-120-2500</b> | Safety accessories  |
| <b>OMH-SLCT-200</b>      | Safety accessories  |
| <b>SB4-OR-4XP</b>        | Safety control unit |

# SB4 Series



### Standard Technical Data

|                         |                      |
|-------------------------|----------------------|
| Voltage type            | DC                   |
| Operating voltage (min) | 19.2 V               |
| Operating voltage (max) | 28.8 V               |
| SIL                     | 3                    |
| Connection type         | Terminal compartment |
| Housing height H        | 99 mm                |
| TÜV                     | ■                    |
| UL                      | ■                    |

For detailed data and description, see the datasheet. Further products can be found online at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

| Model number       | Output type | Length L | Width W |
|--------------------|-------------|----------|---------|
| SB4 Module 2E      | Relay       | 100.5    | 22.6    |
| SB4 Module 2E/165  | Relay       | 100.5    | 22.6    |
| SB4 Module 4C      |             | 100.5    | 22.6    |
| SB4 Module 4C/165  |             | 100.5    | 22.6    |
| SB4 Module 4CO     |             | 100.5    | 22.6    |
| SB4 Module 4COP    |             | 100.5    | 22.6    |
| SB4 Module 4CP     |             | 100.5    | 22.6    |
| SB4 Module 4CP/165 |             | 100.5    | 22.6    |
| SB4 Module 4M      |             | 100.5    | 22.6    |
| SB4 Module 4M/165  |             | 100.5    | 22.6    |
| SB4 Module 4MD     |             | 100.5    | 22.6    |
| SB4 Module 4MD/165 |             | 100.5    | 22.6    |
| SB4 Module 4X      |             | 100.5    | 22.6    |
| SB4 Module 4X/165  |             | 100.5    | 22.6    |
| SB4 Module 4XP     |             | 100.5    | 22.6    |
| SB4 Module 4XP/165 |             | 100.5    | 22.6    |
| SB4 Module 6C      |             | 100.5    | 22.6    |
| SB4 Module OR      | Relay       | 100.5    | 22.6    |
| SB4 Module OR/165  | Relay       | 100.5    | 22.6    |
| SB4-OR-4CP         | Relay       | 112.7    | 45      |
| SB4-OR-4CP-4C      | Relay       | 112.7    | 45      |
| SB4-OR-4CP-4M      | PNP         | 112.7    | 45      |
| SB4-OR-4XP         | Relay       | 112.7    | 45      |
| SB4-OR-4XP-4M      | PNP         | 112.7    | 45      |
| SB4-OR-4XP-4X      | Relay       | 112.7    | 45      |

### Accessories

|                    |                                       |
|--------------------|---------------------------------------|
| SB4 Cape           | Cover                                 |
| SB4 Housing 2      | Empty housing for SB4 control unit    |
| SB4 Housing 3      | Empty housing for SB4 control unit    |
| SB4 Housing 6      | Empty housing for SB4 control unit    |
| SB4 Housing 8      | Empty housing for SB4 control unit    |
| SLA12-LAS-T/124    | Safety light barrier with laser light |
| SLA12-LAS-T/35/124 | Safety light barrier with laser light |
| SLA12/115          | Safety light barrier with laser light |
| SLA12/124          | Safety light barrier with laser light |
| SLA29/105/106      | Safety light barrier with laser light |

