



### Model Number

**ML300-55-6m-RT/25/115/120**

Retroreflective sensor  
with 2 m fixed cable

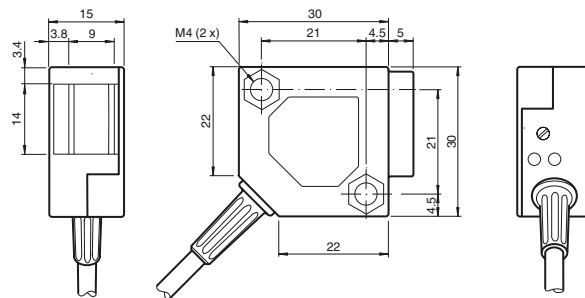
### Features

- Miniature design
- Easy to use
- Visible red light
- 45° cable connector

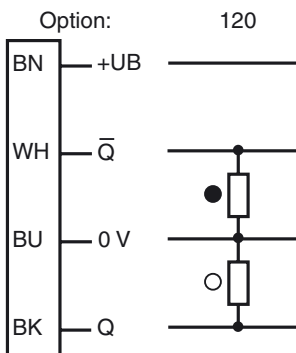
### Product information

The ML300 series has a robust miniature housing and all the standard functional principles. Of particular note are the sensors with analog output, which return a value proportional to the distance. The 45° plug/cable connection ensures flexible mounting. An LED indicates a weak signal, e.g. due to dirt.

### Dimensions

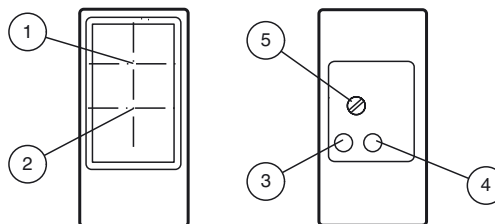


### Electrical connection



- = Light on  
● = Dark on

### Indicators/operating means



|   |                        |        |
|---|------------------------|--------|
| 1 | Receiver               |        |
| 2 | Emitter                |        |
| 3 | Switching state        | yellow |
| 4 | Stability control      | green  |
| 5 | Sensitivity adjustment |        |

**Technical data****General specifications**

|                            |                                              |
|----------------------------|----------------------------------------------|
| Effective detection range  | 0 ... 6 m                                    |
| Reflector distance         | 0.03 ... 6 m                                 |
| Threshold detection range  | 7 m                                          |
| Reference target           | H85-2 reflector                              |
| Light source               | LED                                          |
| Light type                 | modulated visible red light , 660 nm         |
| Diameter of the light spot | approx. 300 mm at 4 m                        |
| Angle of divergence        | approx. 3 °                                  |
| Ambient light limit        |                                              |
| Continuous light           | 10000 Lux                                    |
| Modulated light            | 5000 Lux                                     |
| Accessories provided       | Mounting bracket OMH-ML300-01<br>Screwdriver |

**Indicators/operating means**

|                  |                                                                                       |
|------------------|---------------------------------------------------------------------------------------|
| Function display | LED yellow: lights up when output is active<br>LEDgreen: Sufficient stability control |
| Controls         | sensitivity adjustment                                                                |

**Electrical specifications**

|                        |                |                |
|------------------------|----------------|----------------|
| Operating voltage      | U <sub>B</sub> | 10 ... 30 V DC |
| Ripple                 |                | max. 20 %      |
| No-load supply current | I <sub>0</sub> | max. 20 mA     |

**Output**

|                     |                                                                                                   |          |
|---------------------|---------------------------------------------------------------------------------------------------|----------|
| Switching type      | light on / dark on                                                                                |          |
| Signal output       | 2 PNP outputs, complementary, short-circuit protected, reverse polarity protected, open collector |          |
| Switching voltage   | max. 30 V DC                                                                                      |          |
| Switching current   | max. 0.1 A                                                                                        |          |
| Voltage drop        | U <sub>d</sub>                                                                                    | ≤ 2 V DC |
| Switching frequency | f                                                                                                 | 1000 Hz  |
| Response time       | 0.5 ms                                                                                            |          |

**Ambient conditions**

|                     |                                |
|---------------------|--------------------------------|
| Ambient temperature | -25 ... 55 °C (-13 ... 131 °F) |
|---------------------|--------------------------------|

**Mechanical specifications**

|                   |                 |
|-------------------|-----------------|
| Protection degree | IP67            |
| Connection        | 2 m fixed cable |
| Material          |                 |
| Housing           | PBT             |
| Optical face      | glass pane      |
| Cable             | PVC             |
| Mass              | 75 g            |

**Compliance with standards and directives**

|                             |                                                   |
|-----------------------------|---------------------------------------------------|
| Directive conformity        |                                                   |
| EMC Directive 2004/108/EC   | EN 60947-5-2:2007                                 |
| Standard conformity         |                                                   |
| Product standard            | EN 60947-5-2:2007<br>IEC 60947-5-2:2007           |
| Shock and impact resistance | EN 60947-5-7 30 g, 11 ms, all axes                |
| Vibration resistance        | EN 60947-5-7, 10–55 Hz/1.5 mm amplitude, all axes |

**Approvals and certificates**

|              |                                                                                                                    |
|--------------|--------------------------------------------------------------------------------------------------------------------|
| CCC approval | Products with a maximum operating voltage of ≤36 V do not bear a CCC marking because they do not require approval. |
|--------------|--------------------------------------------------------------------------------------------------------------------|

**Accessories****OMH-ML300-01**

Bracket for mounting ML300 series sensors

**OMH-ML300-02**

Bracket for mounting ML300 series sensors on a 35 mm DIN rail

**REF-H85-2**

Reflector, rectangular 84.5 mm x 84.5 mm, mounting holes

**REF-C110-2**

Reflector, round ø 84 mm, central mounting hole

**REF-H50**

Reflector, rectangular 51 mm x 51 mm, mounting holes, fixing strap

**REF-H60-2**

Reflector with mounting holes

**REF-VR10-2**

Reflector, rectangular 60 mm x 19 mm, mounting holes

**OFR-100/100**

Reflective tape 100 mm x 100 mm

Other suitable accessories can be found at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com)

## Curves/Diagrams

