



### Model Number

**ML300-8-100-RT/79a/95/122**

Diffuse mode sensor  
with 4-pin, M8 x 1 connector

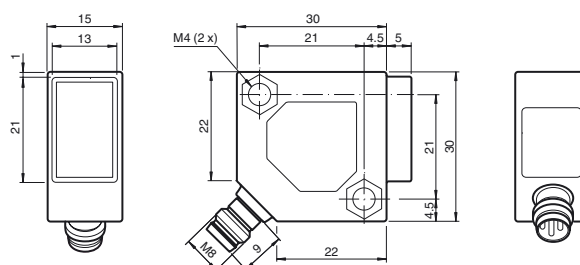
### Features

- Distance measurement using object
- Miniature design
- Easy to use
- Visible red light
- Analog output 0 V ... 10 V/4 mA ... 20 mA
- 45° connector

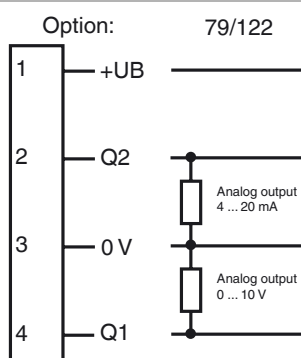
### Product information

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



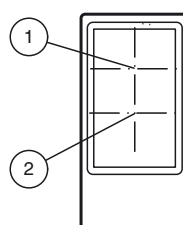
### Electrical connection



### Pinout



### Indicators/operating means



|   |          |
|---|----------|
| 1 | Receiver |
| 2 | Emitter  |

## Technical data

### General specifications

|                            |                                      |
|----------------------------|--------------------------------------|
| Detection range            | 10 ... 100 mm                        |
| Reference target           | standard white, 100 mm x 100 mm      |
| Light source               | LED                                  |
| Light type                 | modulated visible red light , 660 nm |
| Diameter of the light spot | approx. 6 mm at a distance of 100 mm |
| Angle of divergence        | approx. 3.5 °                        |
| Ambient light limit        |                                      |
| Continuous light           | 10000 Lux                            |
| Modulated light            | 5000 Lux                             |
| Accessories provided       | Mounting bracket OMH-ML300-01        |

### Electrical specifications

|                        |       |                |
|------------------------|-------|----------------|
| Operating voltage      | $U_B$ | 15 ... 30 V DC |
| Ripple                 |       | max. 20 %      |
| No-load supply current | $I_0$ | max. 25 mA     |

### Output

|                    |                                                                                                                          |
|--------------------|--------------------------------------------------------------------------------------------------------------------------|
| Measurement output | Analog output: 0 ... 10 V , 10 mA<br>Analog output: 4 ... 20 mA , max. load: 0.5 kOhm (+UB=15 V),<br>1.2 kOhm (+UB=30 V) |
|--------------------|--------------------------------------------------------------------------------------------------------------------------|

### Ambient conditions

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

### Mechanical specifications

|                      |                               |
|----------------------|-------------------------------|
| Degree of protection | IP67                          |
| Connection           | M8 x 1 connector, 4-pin       |
| Material             |                               |
| Housing              | PBT                           |
| Optical face         | glass pane                    |
| Connector            | metal                         |
| Mass                 | 18 g                          |
| Mounting             | Mounting accessories included |

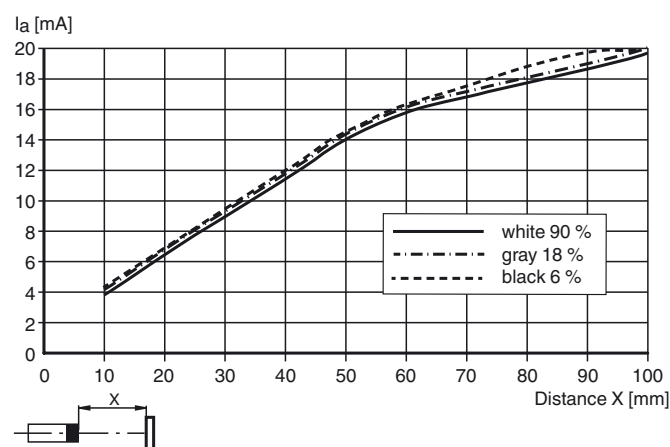
### Compliance with standards and directives

|                             |                                                   |
|-----------------------------|---------------------------------------------------|
| 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 | CCC approval / marking not required for products rated ≤36 V |
|--------------|--------------------------------------------------------------|

**Difference in detection distance**



## 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

### V31-GM-2M-PVC

Female cordset, M8, 4-pin, PVC cable

### V31-WM-2M-PVC

Female cordset, M8, 4-pin, PVC cable

### V31-WM-2M-PUR

Female cordset, M8, 4-pin, PUR cable

### V31-GM-2M-PUR

Female cordset, M8, 4-pin, PUR cable

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

