



**Model Number**

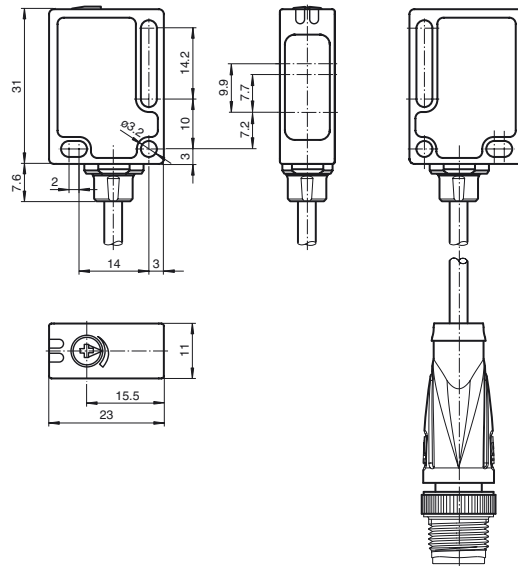
**ML8-8-H-350-IR/65a/102/115b**

Background suppression sensor with fixed cable and M12 connector, 4-pin

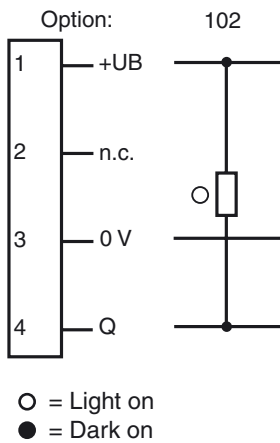
**Features**

- Miniature design
- Minimal black/white difference
- Flexible mounting possibilities due to slotted hole
- Not sensitive to ambient light, even with switched energy saving lamps
- Protection class II

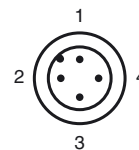
**Dimensions**



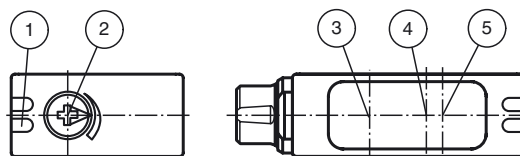
**Electrical connection**



**Pinout**



**Indicators/operating means**



|   |                            |        |
|---|----------------------------|--------|
| 1 | Functional display         | yellow |
| 2 | Detection range adjuster   |        |
| 3 | Optical axis Emitter       |        |
| 4 | Optical axis Receiver min. |        |
| 5 | Optical axis Receiver max. |        |

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Subject to modifications without notice

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

|                                 |   |
|---------------------------------|---|
| Detection range                 | 4 ... 350 mm                            |
| Detection range min.            | 4 ... 25 mm                             |
| Detection range max.            | 10 ... 350 mm                           |
| Adjustment range                | 25 ... 350 mm                           |
| Reference target                | standard white, 100 mm x 100 mm         |
| Light source                    | IREd                                    |
| Light type                      | modulated infrared light                |
| Black/White difference (6%/90%) | < 25 %                                  |
| Diameter of the light spot      | approx. 15 mm at detection range 350 mm |
| Ambient light limit             | 30000 Lux                               |

**Functional safety related parameters**

|                                |        |
|--------------------------------|--------|
| MTTF <sub>d</sub>              | 2090 a |
| Mission Time (T <sub>M</sub> ) | 20 a   |
| Diagnostic Coverage (DC)       | 0 %    |

**Indicators/operating means**

|                  |  |
|------------------|--|
| Function display | LED yellow: lights when object is detected |
| Controls         | Detection range adjuster                   |

**Electrical specifications**

|                        |                |                         |
|------------------------|----------------|-------------------------|
| Operating voltage      | U <sub>B</sub> | 10 ... 30 V DC, class 2 |
| Ripple                 |                | max. 10 %               |
| No-load supply current | I <sub>0</sub> | < 20 mA                 |

**Output**

|                     |   |        |
|---------------------|---|--------|
| Switching type      | light on  |        |
| Signal output       | 1 NPN output, short-circuit protected, reverse polarity protected, open collector |        |
| Switching voltage   | max. 30 V DC  |        |
| Switching current   | max. 100 mA   |        |
| Switching frequency | f   | 200 Hz |
| Response time       |   | 2.5 ms |

**Ambient conditions**

|                     |                                |
|---------------------|--------------------------------|
| Ambient temperature | -20 ... 60 °C (-4 ... 140 °F)  |
| Storage temperature | -40 ... 75 °C (-40 ... 167 °F) |

**Mechanical specifications**

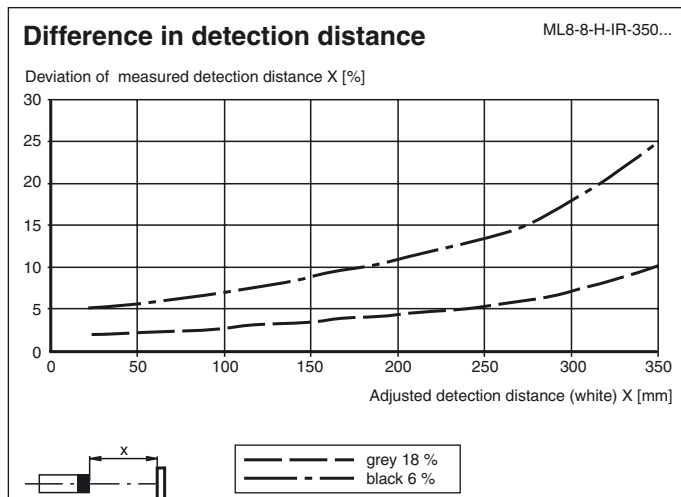
|                   |  |
|-------------------|--|
| Protection degree | IP65   |
| Connection        | fixed cable 300 mm with M12 connector, 4-pin |
| Material          |  |
| Housing           | PC (glass-fiber-reinforced Makrolon)         |
| Optical face      | PMMA   |
| Mass              | approx. 50 g                                 |

**Compliance with standards and directives**

|                      |                           |
|----------------------|---------------------------|
| Directive conformity | EMC Directive 2004/108/EC |
| Standard conformity  |                           |
| Product standard     | EN 60947-5-2:2007         |
| Protection degree    | EN 60529                  |
| Standards            | EN 50178, UL 508          |

**Approvals and certificates**

|                  |  |
|------------------|--|
| Protection class | II, rated voltage ≤ 50 V AC with pollution degree 1-2 according to IEC 60664-1                                     |
| UL approval      | cULus Listed, Class 2 Power Source, Type 1 enclosure   |
| CCC approval     | Products with a maximum operating voltage of ≤36 V do not bear a CCC marking because they do not require approval. |

**Accessories****Montagekit OMH-ML7-01**

Mounting set consisting of bracket OMH-ML-01 sheet ONH-ML7-03, and fastening material

**Montagekit OMH-ML7-02**

Mounting set consisting of bracket OMH-ML-02 sheet ONH-ML7-03, and fastening material

**OMH-ML7-01**

Mounting bracket

**OMH-ML7-02**

Mounting bracket

**OMH-ML7-03**

Fixing plate

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