



### Model Number

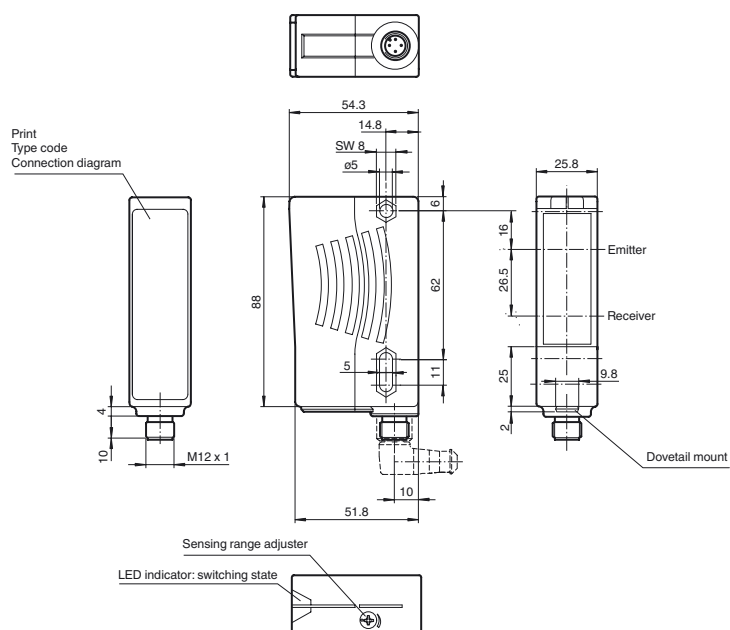
**RL29-8-H-1200-RT/73c/136**

Background suppression sensor  
with 4-pin, M12 x 1 plastic connector

### Features

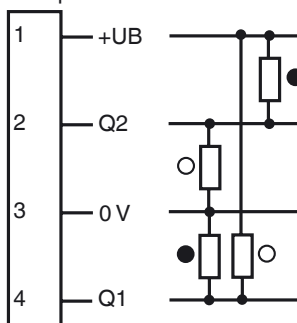
- Highly visible LED
- Good alignability due to red transmission LED
- Minimal black-white difference
- Powerful push-pull output
- Optimal price/power ratio
- Protection class II

### Dimensions



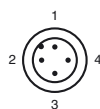
### Electrical connection

Option:



○ = Light on  
● = Dark on

### Pinout



Wire colors in accordance with EN 60947-5-2

|   |    |         |
|---|----|---------|
| 1 | BN | (brown) |
| 2 | WH | (white) |
| 3 | BU | (blue)  |
| 4 | BK | (black) |

## Technical data

### General specifications

|                                   |                                                       |
|-----------------------------------|-------------------------------------------------------|
| Detection range                   | 30 ... 1200 mm , adjustable                           |
| Detection range min.              | 20 ... 200 mm                                         |
| Detection range max.              | 30 ... 1200 mm                                        |
| Background suppression            | max. + 10 % of the upper limit of the detection range |
| Light source                      | LED 660 nm                                            |
| Light type                        | modulated visible red light                           |
| Black/White difference (6 %/90 %) | < 35 % at 1200 mm sensor range                        |
| Diameter of the light spot        | approx. 25 mm at a distance of 1200 mm                |
| Angle of divergence               | Emitter: 1.2 ° , Receiver: 2 °                        |
| Ambient light limit               | 50000 Lux                                             |

### Functional safety related parameters

|                                |       |
|--------------------------------|-------|
| MTTF <sub>d</sub>              | 720 a |
| Mission Time (T <sub>M</sub> ) | 20 a  |
| Diagnostic Coverage (DC)       | 0 %   |

### Indicators/operating means

|                    |                             |
|--------------------|-----------------------------|
| Function indicator | LED yellow: switching state |
| Control elements   | Sensing range adjuster      |

### Electrical specifications

|                        |                |                          |
|------------------------|----------------|--------------------------|
| Operating voltage      | U <sub>B</sub> | 10 ... 30 V DC , class 2 |
| Ripple                 |                | 10 %                     |
| No-load supply current | I <sub>0</sub> | ≤ 40 mA                  |

### Output

|                     |                                                                                   |
|---------------------|-----------------------------------------------------------------------------------|
| Switching type      | light on                                                                          |
| Signal output       | 2 push-pull (4 in 1) outputs, short-circuit protected, reverse polarity protected |
| Switching voltage   | max. 30 V DC                                                                      |
| Switching current   | max. 100 mA                                                                       |
| Switching frequency | f 125 Hz                                                                          |
| Response time       | 4 ms                                                                              |

### Conformity

|                  |              |
|------------------|--------------|
| Product standard | EN 60947-5-2 |
|------------------|--------------|

### Ambient conditions

|                     |                                |
|---------------------|--------------------------------|
| Ambient temperature | -25 ... 60 °C (-13 ... 140 °F) |
| Storage temperature | -40 ... 75 °C (-40 ... 167 °F) |

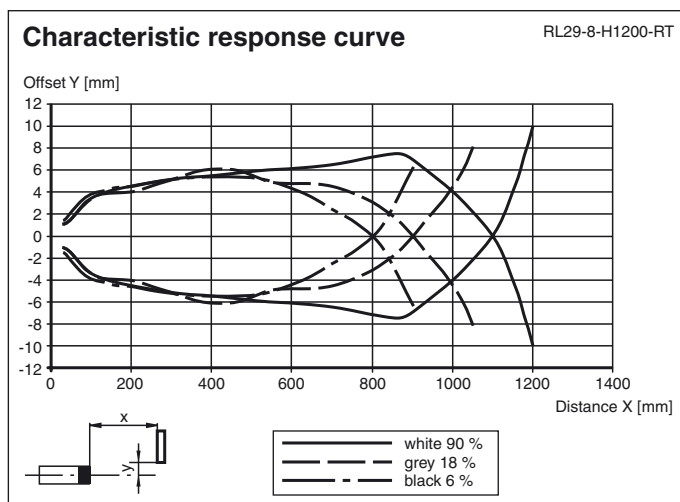
### Mechanical specifications

|                      |                                  |
|----------------------|----------------------------------|
| Housing width        | 25.8 mm                          |
| Housing height       | 88 mm                            |
| Housing depth        | 54.3 mm                          |
| Degree of protection | IP65                             |
| Connection           | Plastic connector M12 x 1, 4-pin |
| Material             |                                  |
| Housing              | Plastic ABS                      |
| Optical face         | plastic                          |
| Mass                 | 70 g                             |

### Approvals and certificates

|                  |                                                                                 |
|------------------|---------------------------------------------------------------------------------|
| Protection class | II, rated voltage ≤ 250 V AC with pollution degree 1-2 according to IEC 60664-1 |
| UL approval      | E87056 , cULus Listed , class 2 power supply , type rating 1                    |

## Curves/Diagrams



## Accessories

### OMH-05

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

### OMH-07

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

### OMH-21

Mounting bracket

### OMH-22

Mounting bracket

### OMH-MLV11-K

dove tail mounting clamp

### OMH-RLK29-HW

Mounting bracket for rear wall mounting

### OMH-RL28-C

Weld slag cover model

### V1-G-2M-PUR

Female cordset, M12, 4-pin, PUR cable

### V1-W-2M-PUR

Female cordset, M12, 4-pin, PUR cable

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

