Model Number
RL29-8-H-1200-RT/115/136
Background suppression sensor with 2.5 m fixed cable

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:
- BN +UB
- WH Ø
- BU 0 V
- BK 0

= Light on
= Dark on
## 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
- **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
- **MTTFd**: 720 a
- **Mission Time (T_M)**: 20 a
- **Diagnostic Coverage (DC)**: 0 %

### Indicators/operating means
- **Function indicator**: LED yellow: switching state
- **Control elements**: Detection range adjuster

### Electrical specifications
- **Operating voltage**: U_B (10 ... 30 V DC), class 2
- **Ripple**: 10 %
- **No-load supply current**: I_0 ≤ 40 mA
- **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

### Ambient conditions
- **Ambient temperature**: -25 ... 60 °C (-13 ... 140 °F)
- **Storage temperature**: -40 ... 75 °C (-40 ... 167 °F)

### Mechanical specifications
- **Degree of protection**: IP65
- **Connection**: 2500 mm fixed cable
- **Material**: Housing Plastic ABS
- **Optical face**: plastic
- **Mass**: 180 g

### Compliance with standards and directives

### Approvals and certificates
- **Protection class**: II, rated voltage ≤ 250 V AC with pollution degree 1-2 according to IEC 60664-1
- **UL approval**: E47056 , cULus Listed , class 2 power supply , type rating 1

## 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

Other suitable accessories can be found at www.pepperl-fuchs.com
Background suppression sensor

**Curves/Diagrams**

### Characteristic response curve

**RL29-8-H1200-RT**

**Offset Y [mm]**

- White 90%
- Grey 18%
- Black 6%

**Distance X [mm]**

- 0
- 200
- 400
- 600
- 800
- 1000
- 1200
- 1400

### Difference in detection distance

**RL29-8-H-1200-RT**

**Measured detection distance X [mm]**

- 0
- 200
- 400
- 600
- 800
- 1000
- 1200
- 1400

**Adjusted detection distance X [mm]**

- 0
- 200
- 400
- 600
- 800
- 1000
- 1200
- 1400

- White 90%
- Grey 18%
- Black 6%