A very effective operating principle

A retro-reflective area sensor contains several transmitters and receivers in one enclosure with a reflector positioned opposite forming a continuous wide or high detection area over the relevant sensing range. When the light beams in the detection area are interrupted by an object, the switching function is triggered.

Technical data

- **Operating range**: 0 m … 4 m
- **Detection field**: 60 mm across the entire sensing range
- **Resolution**: 12 mm
- **Reference object**: Reflector H60, reflector H85-2
- **Light source**: Modulated visible red light
- **Number of beams**: 6
- **Light spot diameter**: Approx. 220 mm at sensing range of 4 m
- **Light beam angle**: ±2,5°
- **Ambient light limit**: 5000 Lux
- **LED indicators**: Operating indicator/Undervoltage indicator, Short-circuit/Function display/Teach-In
- **Supply voltage**: 12 V DC … 30 V DC
- **Operating mode**: Light on/dark on modes, switchable
- **Response time**: 1 ms
- **Ambient temperature**: -30 °C ... 60 °C (-22 °F …140 °F)
- **Degree of protection**: IP67
- **Connection**: M12 connector, 4-pin or fixed cable, 300 mm, with M12 connector, 4-pin (pigtail)
- **Dimensions (WxHxL)**: 25.8 mm x 88 mm x 54.3 mm

For more information on our Series RLG28, visit: [www.pepperl-fuchs.com/rlg28](http://www.pepperl-fuchs.com/rlg28)
The use of normal photoelectric sensors to detect objects whose appearance occasionally differs due to certain characteristics often causes problems. More specifically, objects with varying front edges regularly overload devices with single-point detection characteristics.

The RLG28 is a 100% problem-solver with a 60 mm wide detection field for the reliable detection of objects whose front edges can vary, e.g., different types of pallets, bags, packaged objects or other items without a clearly defined shape.

APPLICATION EXAMPLES
■ Reliable front edge detection for a wide range of objects, such as pallets with different heights, varying reflectivity, as well as dirt and damage
■ Object detection irrespective of object shape, e.g., bags or other objects without a clearly defined shape
■ Detection of the object irrespective of the object texture, e.g., reflective, foil-wrapped objects
■ Reliable, consistent detection of falling objects, e.g., in ejection control
■ Overhang control
■ As a muting sensor

The use of normal photoelectric sensors to detect objects whose appearance occasionally differs due to certain characteristics often causes problems. More specifically, objects with varying front edges regularly overload devices with single-point detection characteristics.

APPLICATION EXAMPLES
■ Reliable front edge detection for a wide range of objects, such as pallets with different heights, varying reflectivity, as well as dirt and damage
■ Object detection irrespective of object shape, e.g., bags or other objects without a clearly defined shape
■ Detection of the object irrespective of the object texture, e.g., reflective, foil-wrapped objects
■ Reliable, consistent detection of falling objects, e.g., in ejection control
■ Overhang control
■ As a muting sensor

EVERY TASK IS CONSIDERED A LITTLE EASIER IN THE RIGHT LIGHT:

High specification with a trouble free guarantee for detection, installation and operation

RLG28 FEATURES
■ Retro-reflective area sensor with 4 m sensing range
■ Standard series 28 housing
■ Uses 6 beams to generate a 60 mm wide detection area
■ Consistently detects object sizes as small as 12 mm
■ Switches at a min. 10% contrast difference
■ Suitable for extremely low-temperature applications (to -30°C/-22 °F)
■ Bright, highly visible transmitter beams guarantee easy alignment
■ Simple teach-in
■ Protection against mutual interference
■ Resistant to reflection objects and foil, shock and vibration resistant
■ Immune to extraneous light
■ Mechanically and electrically compatible with the single beam photoelectric sensors commonly used in the market

Connection compatibility makes it easy to replace single-beam photoelectric sensors

Retro-reflective area sensor with 6 light beams in a standard photoelectric sensor housing

With 6 beams, it generates a 60 mm wide detection area throughout the entire sensing range, without blind spots

60 mm

Constant detection of objects as small as 12 mm within the entire detection area

Reliable front edge detection of the object irrespective of its shape, position and surface finish

Use in low temperature range to -30°C

Reflection and foil resistant, shock and vibration resistant

Connection compatibility makes it easy to replace single-beam photoelectric sensors
INTRODUCING A SENSOR INNOVATION

With 6 beams, it generates a 60 mm wide detection area throughout the entire sensing range, without blind spots.

Retro-reflective area sensor with 4 light beams in a standard photoelectric sensor housing.

Connection compatibility makes it easy to replace single-beam photoelectric sensor.

Constant detection of objects as small as 12 mm within the entire detection area.

Reflection and foil resistant, shock and vibration resistant.

Use in low temperature range to -30 °C.

HIGH SPECIFICATION WITH A TROUBLE FREE GUARANTEE FOR DETECTION, INSTALLATION AND OPERATION

RLG28 FEATURES

- Retro-reflective area sensor with 4 m sensing range
- Standard series 28 housing
- Uses 6 beams to generate a 60 mm wide detection area
- Consistently detects object sizes as small as 12 mm
- Switches at a min. 10% contrast difference
- Compensation for external influences (sens contamination, misalignment and temperature)
- Suitable for extremely low-temperature applications (to -30°C/-22 °F)
- Bright, highly visible transmitter beams guarantee easy alignment
- Simple teach-in
- Protection against mutual interference
- Resistant to reflection objects and foil, shock and vibration resistant
- Immune to extraneous light
- Mechanically and electrically compatible with the single beam photoelectric sensors commonly used in the market

EVERY TASK IS CONSIDERED A LITTLE EASIER IN THE RIGHT LIGHT:

SINGLE BEAM SENSOR vs. RETRO-REFLECTIVE AREA SENSOR

The use of normal photoelectric sensors to detect objects whose appearance occasionally differs due to certain characteristics often causes problems. More specifically, objects with varying front edges regularly overload devices with single-point detection characteristics.

The RLG28’s problem-solver with a 60 mm wide detection field for the reliable detection of objects whose front edges can vary, e.g., different types of pallets, bags, packaged objects or other items without a clearly defined shape.

APPLICATION EXAMPLES

- Reliably detects a wide range of objects, such as pallets with different heights, varying reflectivity, as well as dirt and damage
- Object detection irrespective of object shape, e.g., bags or other objects without a clearly defined shape
- Detection of the object irrespective of the object texture, e.g., reflective, foil wrapped objects
- Reliable, consistent detection of falling objects, e.g., in ejection control
- Overhang control
- As a muting sensor
The use of normal photoelectric sensors to detect objects whose appearance occasionally differs due to certain characteristics often causes problems. More specifically, objects with varying front edges regularly overload devices with single-point detection characteristics.

The 100% problem-solver with a 60 mm wide detection field for the reliable detection of objects whose front edges can vary, e.g., different types of pallets, bags, packaged objects or other items without a clearly defined shape.

**APPLICATION EXAMPLES**

- Reliable front edge detection for a wide range of objects, such as pallets with different heights, varying reflectivity, as well as dirt and damage
- Object detection irrespective of object shape, e.g., bags or other objects without a clearly defined shape
- Detection of the object irrespective of the object texture, e.g., reflective, foil wrapped objects
- Reliable, consistent detection of falling objects, e.g., in ejection control
- Overhang control
- As a muting sensor

**RLG28 FEATURES**

- Retro-reflective area sensor with 6 m sensing range
- Standard series 28 housing
- Uses 6 beams to generate a 60 mm wide detection area
- Consistently detects object sizes as small as 12 mm
- Switches at a min. 10% contrast difference
- Compensation for external influences (lens contamination, misalignment and temperature)
- Suitable for extremely low-temperature applications (to -30°C/-22 °F)
- Bright, highly visible transmitter beams guarantee easy alignment
- Simple touch-in
- Protection against mutual interference
- Resistant to reflection objects and foil, shock and vibration resistant
- Immune to extraneous light
- Reliably and electrically compatible with the single beam photoelectric sensors commonly used in the market

**SINGLE BEAM SENSOR**

The use of normal photoelectric sensors to detect objects whose appearance occasionally differs due to certain characteristics often causes problems. More specifically, objects with varying front edges regularly overload devices with single-point detection characteristics.

**RETRO-REFLECTIVE AREA SENSOR**

The use of normal photoelectric sensors to detect objects whose appearance occasionally differs due to certain characteristics often causes problems. More specifically, objects with varying front edges regularly overload devices with single-point detection characteristics.
A very effective operating principle

A retro-reflective area sensor contains several transmitters and receivers in one enclosure with a reflector positioned opposite forming a continuous wide or high detection area over the relevant sensing range. When the light beams in the detection area are interrupted by an object, the switching function is triggered.

### STANDARD MOUNTING BRACKETS FOR SERIES 28

<table>
<thead>
<tr>
<th>Mounting Bracket</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>OMH-05</td>
<td>Mounting bracket for circular or flat profiles</td>
</tr>
<tr>
<td>OMH-07</td>
<td>Mounting bracket for circular or flat profiles, footplate angled 90°</td>
</tr>
<tr>
<td>OMH-21</td>
<td>Standard mounting bracket</td>
</tr>
<tr>
<td>OMH-RLK29-HW</td>
<td>Mounting bracket when fitting to rear panel</td>
</tr>
<tr>
<td>OMH-K01</td>
<td>Mounting clamp for dovetail joint</td>
</tr>
</tbody>
</table>

### CONNECTING CABLE

<table>
<thead>
<tr>
<th>Cable</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>V1-G-2M-PVC</td>
<td>Straight M12 4-pin connecting quick disconnect with 2 m PVC cable</td>
</tr>
<tr>
<td>V1-W-2M-PVC</td>
<td>Angled M12 4-pin connecting quick disconnect with 2 m PVC cable</td>
</tr>
<tr>
<td>V1-G-2M-PUR</td>
<td>Straight M12 4-pin connecting quick disconnect with 2 m cable</td>
</tr>
<tr>
<td>V1-W-2M-PUR</td>
<td>Angled M12 4-pin connecting quick disconnect with 2 m cable</td>
</tr>
</tbody>
</table>

### TECHNICAL INFORMATION

**A retro-reflective area sensor**

- **Operating range**: 0 m … 4 m
- **Detection field**: 60 mm across the entire sensing range
- **Resolution**: 12 mm
- **Reference object**: Reflectors H60, reflectors H85-2
- **Light source**: Modulated visible red light
- **Number of beams**: 6
- **Light spot diameter**: Approx. 220 mm at sensing range of 4 m
- **Light-beam angle**: ±2,5°
- **Ambient light limit**: 5000 Lux
- **LED indicators**: Operating indicator/Undervoltage indicator, short-circuit/function display/Teach-In indicator
- **Operating controls**: Rotary switch for dark on/light on, Teach-In button
- **Supply voltage**: 12 V DC … 30 V DC
- **Operating mode**: Light on/dark on modes, switchable
- **Signal output**: 2 antivalent push-pull outputs (4 in 1)
- **Switching frequency**: 230 Hz
- **Response time**: 1 ms
- **Ambient temperature**: -30 °C ... 60 °C (-22 °F … 140 °F)
- **Degree of protection**: IP67
- **Connection**: M12 connector, 4-pin or fixed cable, 300 mm, with M12 connector, 4-pin (pigtail)

**CONNECTING CABLE**

- **Model Number Description**
  - RLG28-55/40a/73c/136: 4-pin M12 connector
  - RLG28-55/40a/115b/136: Pigtail connector (300 mm cable with 4-pin M12 quick disconnect)

For more information on our Series RLG28, visit: [www.pepperl-fuchs.com/rlg28](http://www.pepperl-fuchs.com/rlg28)
A very effective operating principle

A retro-reflective area sensor contains several transmitters and receivers in one enclosure with a reflector positioned opposite forming a continuous wide or high detection area over the relevant sensing range. When the light beams in the detection area are interrupted by an object, the switching function is triggered.

Technical data

- **Operating range**: 0 m … 4 m
- **Detection field**: 60 mm across the entire sensing range
- **Resolution**: 12 mm
- **Reference object**: Reflector H60, reflector H85-2
- **Light source**: modulated visible red light
- **Number of beams**: 6
- **Light spot diameter**: approx. 220 mm at sensing range of 4 m
- **Light beam angle**: ±2.5°
- **Ambient light limit**: 5000 Lux
- **LED indicators**: Operating indicator/Undervoltage indicator/Short-circuit/Function display/Teach-In button
- **Operating controls**: Rotary switch for dark on/light on, Teach-In button
- **Supply voltage**: 12 V DC … 30 V DC
- **Operating mode**: Light on/dark on modes, switchable
- **Signal output**: 2 antivalent push-pull outputs (4 in 1)
- **Switching frequency**: 230 Hz
- **Response time**: 1 ms
- **Ambient temperature**: -30 °C ... 60 °C (-22 °F …140 °F)
- **Degree of protection**: IP67
- **Connection**: M12 connector, 4-pin or fixed cable, 300 mm, with M12 connector, 4-pin (pigtail)
- **Dimensions (WxHxL)**: 25.8 mm x 88 mm x 54.3 mm
- **MODEL NUMBER DESCRIPTION**
  - RLG28-55/40a/73c/136: 4-pin M12 connector
  - RLG28-55/40a/115b/136: Pigtail connector (300 mm cable with 4-pin M12 quick disconnect)

For more information on our Series RLG28, visit: [www.pepperl-fuchs.com/rlg28](http://www.pepperl-fuchs.com/rlg28)

Retro-reflective area sensors series RLG28

Because objects come in all shapes and sizes