Area Obstacle detection & collision prevention for high-bay to lower bay overhead crane applications

**Multi-Crane application examples**

- Detection of another crane
- Detection of load suspended from another crane

**Rubber Tire Gantry (RTG) application example**

Obstacle Detection for RTG

Note: Field testing is recommended for evaluating sensor detection performance on the surfaces of objects and within the application environment.

**Scanning Zone**

- Number of steps: 760
- Scanning angle: 190°
- Step angle: 0.25°

**Features**

- 30-meter scanning range
- 190° scan angle
- Three configurable output zones
- Two mounting bracket types available
- Control Box (100-240VAC power supply, Relay outputs)

**Appearance**

<table>
<thead>
<tr>
<th>RSC-30LN-UP-DW</th>
<th>RSC-30LN-FR</th>
<th>RSC-C (Control Box)</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Image" /></td>
<td><img src="image2.png" alt="Image" /></td>
<td><img src="image3.png" alt="Image" /></td>
</tr>
</tbody>
</table>
## Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>Power source</th>
<th>Light source</th>
<th>Scanning Range and Detectable object</th>
<th>Distance Accuracy</th>
<th>Scanning Angle</th>
<th>Interface</th>
<th>Angular Resolution</th>
<th>Scanning Rate</th>
<th>Operating Temperature and Humidity</th>
<th>Vibration Resistance</th>
<th>Impact Resistance</th>
<th>Protective Structure</th>
</tr>
</thead>
<tbody>
<tr>
<td>RSC-30LN-UP-DW (flush-mount bracket)</td>
<td>10 to 30VDC</td>
<td>Semiconductor laser (905nm), Class 1 eye safe</td>
<td>0.1 to 30m (Black sheet with 10% reflectance, 500mm x 500mm size) Maximum distance: 100m Minimum detectable object: 65mm at 5m, 130mm at 10m, 400mm at 30m</td>
<td>+/-100mm (with 10% reflectance at 10m, with white Sheet at 30m) (under environment of ambient illuminance 100000 or less)</td>
<td>190 degree</td>
<td>USB2.0 Full Speed, 12Mbps (for configuration of detection zone)</td>
<td>0.25 degree</td>
<td>50ms per scan</td>
<td>-10 to +50°C 85%RH (not condensing and icing)</td>
<td>10 to 55Hz Double Amplitude 1.5mm, in each X, Y and Z axis for 2 hours 55 to 200Hz 196m/s² sweep of 2 min. in each X,Y and Z axis for 1 hour</td>
<td>196m/s² 10times in each X, Y and Z axis</td>
<td>IP67</td>
</tr>
<tr>
<td>RSC-30LN-FR (horizontal-mount bracket)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>190 degree</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Control Box

<table>
<thead>
<tr>
<th>Model</th>
<th>Power Source</th>
<th>Power Consumption</th>
<th>Control Output</th>
<th>Output Response Time</th>
<th>Operating Temperature and Humidity</th>
<th>Protective Structure</th>
</tr>
</thead>
<tbody>
<tr>
<td>RSC-C</td>
<td>100 to 200VAC</td>
<td>11.0VA or less at 100VAC, 15.0VA or less at 200VAC Output: 4 (1-error output,3-detection output)</td>
<td>Relay contact output, Rated Load (250VAC:5A, 30VDC:5A)</td>
<td>Operation: 10ms or less (approx. 4ms) Reset: 10ms or less(approx..2ms)</td>
<td>-10 to 50°C 85%RH (not condensing and icing)</td>
<td>IP65 (provided if the terminal wiring is properly connected)</td>
</tr>
</tbody>
</table>

## External Dimensions

- **Scanner (RSC-30LN-UP-DW) (RSC-30LN-FR)**
- **Bracket-UPDW (RSC-30LN-UP-DW)**
- **Bracket-FR (RSC-30LN-FR)**
- **Control Box (RSC-C)**