1. Assembly and Connection

1. Mount the base assembly in your chosen outdoor location. For details, see the ‘Mounting’ section on page 2.

2. Fit the (supplied) cable gland to the base assembly (cable diameter 6 mm – 12 mm).

   The base assembly will accept 20 mm conduit as an alternative to the cable gland.

   One of these methods (cable gland or conduit) must be used to meet the product’s IP 65 rating.

3. Put the sealing gasket in place on the base assembly.

4. Thread the DALI cable through the base assembly, up through the sealing gasket.

5. Connect the DALI wires to the connectors of the socket assembly:

<table>
<thead>
<tr>
<th>Terminal</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>N (DA+)</td>
<td>DALI+</td>
</tr>
<tr>
<td>L0 (DA-)</td>
<td>DALI-</td>
</tr>
<tr>
<td>L</td>
<td>Do not connect</td>
</tr>
</tbody>
</table>

6. Check that the sealing gasket is in position, and then screw the socket assembly into the base assembly (use the two screws supplied).

7. Attach the head assembly to the socket assembly:
   a. Align the connector tabs with the sockets (note that the ‘N’ tab is larger than the others)
   b. Push the head assembly down into the socket assembly.
   c. Twist the head assembly clockwise to lock it into position.
2. Mounting

**WARNING:** TO AVOID THE POSSIBLE RISK OF LIGHTNING STRIKES, NEVER INSTALL THE 329 DALI EXTERNAL LIGHT SENSOR AT THE HIGHEST POINT ON A BUILDING.

**Mounting position**

Mount the 329 DALI External Light Sensor outdoors.

Mount the unit vertically.

Any convenient surface may be used as long as the sensor element has a reasonably unrestricted view of the sky.

**Fixing screws**

M4 thread or No. 8 wood screw: select according to mounting surface.

Use round-head or cheese-head screws. Do not use countersunk screw heads.

**Procedure**

1. Drill and prepare the screw fixing holes as shown in the diagram included in the ‘Fixing Centre Locations’ section on page 4.

2. To access the top mounting screw, remove the 329 head assembly by twisting the head assembly anticlockwise and lifting it.

3. Screw in the fixing screws.

4. With the bracket located under the top screws, secure the lower screw.

**NOTE**

Avoid overtightening the screws, as this may weaken or break the bracket material.
3. Operation

Light Level Output

The external light sensor is calibrated to provide a scaled light level output of 0 to 200, covering the full range of daylight. The sensitivity of the external light sensor is factory set and no adjustment is required.

<table>
<thead>
<tr>
<th>Incident Light (lux)</th>
<th>Light Level Reading Output Value</th>
<th>Equivalent To</th>
</tr>
</thead>
<tbody>
<tr>
<td>≤1</td>
<td>0</td>
<td>Darkness</td>
</tr>
<tr>
<td>2</td>
<td>11</td>
<td>Twilight</td>
</tr>
<tr>
<td>5</td>
<td>26</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>38</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>49</td>
<td></td>
</tr>
<tr>
<td>50</td>
<td>65</td>
<td></td>
</tr>
<tr>
<td>100</td>
<td>76</td>
<td>Dark day</td>
</tr>
<tr>
<td>200</td>
<td>87</td>
<td></td>
</tr>
<tr>
<td>500</td>
<td>102</td>
<td></td>
</tr>
<tr>
<td>1000</td>
<td>114</td>
<td>Overcast day</td>
</tr>
<tr>
<td>2000</td>
<td>125</td>
<td></td>
</tr>
<tr>
<td>5000</td>
<td>140</td>
<td></td>
</tr>
<tr>
<td>10 000</td>
<td>152</td>
<td>Full daylight</td>
</tr>
<tr>
<td>20 000</td>
<td>163</td>
<td></td>
</tr>
<tr>
<td>50 000</td>
<td>178</td>
<td></td>
</tr>
<tr>
<td>100 000</td>
<td>190</td>
<td>Bright sunlight</td>
</tr>
</tbody>
</table>

Cleaning the Sensor Head Cover

A build-up of dust and dirt on the clear cover of the sensor head may reduce the efficiency of the light sensor unit. We recommend that the cover is examined periodically and, if necessary, cleaned with a soft damp cloth. Use a mild detergent for stubborn marks.

Light Sensing Angle

**Technical Data**

**Connections**

**DALI**
- Wire size: 1.0 mm² – 2.5 mm²
- 2-core solid, flexible or stranded
- Max. length: 300 m
- Ø 2.5 mm²
- (part of DALI subnet)

**Connector type:**
- Screw terminals:
  - N: DALI+
  - L0: DALI–
  - L1: No connection

**Cable rating:**
- All cables must be mains rated.

**Power supply**
- DALI power supply: 13 V – 22 V
- DALI consumption: 10 mA

**Sensor**

**Sensor element:**
- Photodiode matched to human eye response.

**Light sensing angle:**
- When mounted vertically:
  - 85° from vertical
  - Horizontal plane: 360°

**Working light range:**
- 1 lx – 100 000 lx

**Light level reading output:**
- 0–200

**Mounting**

**Mounting angle:**
- Vertical (clear sensor head at top)

**Mounting points:**
- 2 × M4 [No. 8 woodscrew]
- For fixing centres, see diagram.

**Mechanical data**

**Dimensions:**
- 148 mm × 82 mm × 87 mm

**Materials**

**Base & mounting bracket:**
- Black ABS

**Socket & sensor accessory:**
- Black glass-filled nylon

**Sensor cover:**
- Toughened acrylic (UV stable)

**Weight:**
- 250 g

**IP code:**
- IP65

**Operating conditions**

**Ambient temperature:**
- –35 °C to +70 °C

**Relative humidity:**
- Max. 90 %, noncondensing

**Storage temperature:**
- –35 °C to +70 °C

**Conformity and standards**

**EMC emission:**
- EN 55015

**EMC immunity:**
- EN 61547

**Safety:**
- EN 61347-2-11

**Environment:**
- Complies with WEEE and RoHS directives.