**Installing the Sensor into Ceiling Tile**

1. Remove the Terminal Cover

2. Position the Sensor

3. Secure the Sensor with Screw or Lockring

**Electrical Connections**

The following wiring diagrams show how to connect some of the more fully-featured products listed above. For clarity, the wiring for some of the lesser-featured products is not shown, but the wiring principles are the same and equally applicable. Simply omit any sections that are not relevant to the product being installed.

NOTE:
1. Digital ballasts are normally wired from an unswitched supply.
2. The sensor will automatically adjust to control DSI or DALI ballasts, but all ballasts must be of the same type.
3. Non-relay versions of the digital dimming sensors do not have any switched live output.

This is applicable to the following sensors:
- LS3005DF/SM, LS3006DMBF/SM & LS3005DBHBF/SM.

**Single Channel Dimming Using Analogue or Digital Ballasts (fig 4)**

Analogue ballasts cannot be switched off from the control terminals, so it is necessary to switch the mains power from the sensor as shown in the diagram below. Although switching the mains power is not necessary with digital ballasts, they may be wired this way in order to reduce the quiescent power consumption in unoccupied areas to an absolute minimum.

**Connecting Sensors together with QuickLink, and Creation of an Additional Dimming Channel (fig 5)**

The wiring diagram below shows how to connect sensors together using the QuickLink Bus. QuickLink is a convenient way of wiring multiple sensors so that they share information (e.g. occupancy) and are able to work in harmony. Some sensors operate from a low voltage derived from the QuickLink Bus and therefore do not require a mains connection. The Low Voltage Bus sensors installation instructions for further information. It is permissible to connect up to four sensors together in this way. No more than two mains-powered sensors are allowed in a common connection.

**Positioning the Sensor**

The sensor should be positioned on the ceiling in the centre of the occupied space. As the sensor is more sensitive to movement across the beam compared to movement towards the center, see fig 1, careful attention should be taken to achieve the correct orientation of the sensor. This product is available in three different mounting height variants; see fig 1 and the table below. Ensure that the maximum recommended mounting height is not exceeded. Avoid mounting next to an Air Conditioning unit.

**Notes:**
- To achieve optimal occupancy detection, the sensor must be oriented as shown in the diagram. The sensor is more sensitive to movement when direction of travel is along the vertical and horizontal planes, as indicated by the arrows.
- LS3043DRHB, LS3243RMB, LS3000DRHB, LS3000DRMB, LS3000DMB & LS3000AR have any switched live output.

**Table:**

<table>
<thead>
<tr>
<th>Height</th>
<th>LS3043DRHB</th>
<th>LS3243RMB</th>
<th>LS3000DRHB</th>
<th>LS3000DRMB</th>
<th>LS3000DMB</th>
<th>LS3000AR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Bay</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>3.5m</td>
<td>1.9:1</td>
</tr>
<tr>
<td>Mid Bay</td>
<td>12m</td>
<td>3.5m</td>
<td>3.5m</td>
<td>2.5m</td>
<td>3.5m</td>
<td>1.9:1</td>
</tr>
<tr>
<td>High Bay</td>
<td>16m</td>
<td>3.5m</td>
<td>3.5m</td>
<td>2.5m</td>
<td>3.5m</td>
<td>1.9:1</td>
</tr>
</tbody>
</table>

**As the sensor is more sensitive to movement across the beam compared to movement towards the center, see fig 1, careful attention should be taken to achieve the correct orientation of the sensor.**
Fixing to Ceiling - Surface Mounting (optional)

Product variant with “SM” suffixed, i.e. part number are supplied with the surface fitting kit as standard. The surface mount kit is available as a separate part, please order Surfmt. The sensor may be two mounted to any suitable surface, but is most commonly fixed to a conduit stop-end (fig 6 set) (BEFA) box or housed to trunnion.

Uninstalling and Repositioning

Insert a flat headed screwdriver into the exit as shown and twist the collar anti-clockwise to release, fig 7. To separate the sensor from the surface mount casing, push a flat headed screwdriver onto the tab via the inside void of the casing and pull the sensor upwards, fig 8.

Tilt and Lock the Sensor

Product variant with “SM” suffixes. Some products feature the ability to tilt the sensor (before fitting) by up to 10° in 2° increments, in order to extend the range in one direction. This may be useful in cases where the ideal mounting location is not available. The increased range is indicated in fig 9.

Technical Data

- **Marking**: White on blue
- **Dimensions**: L x W x H 25x105x115
- **Power Supply**: Live, Neutral, Earth
- **Input and Output**: Input: L x W x H 25x105x115
- **Operating voltage**: 220VAC+/-10% 50-60Hz
- **Max load**: 200A, Tungsten powered Master (powered Master)

LED indication

- 1 blue flash every 2 seconds: Light level demand – photocell striving for more light in order to reach set-point
- 2 blue flashes every 2 seconds: A manual switch is being alarmed
- 3 red flashes every 2 seconds: Lamp turns on as progress – lamps may be on or not permitted for the duration
- 2 red flashes every 2 seconds: Channel D0 or Channel D1 error – e.g. 1. Too many QuickLink mains-powered devices connected together, or 2. Dimming luminaire connected somewhere they shouldn’t be
- 3 red flashes every 2 seconds: Channel D0 or Channel D1 error – e.g. 1. Possible short circuit, or 2. Too many QuickLink mains-powered devices connected together with wrong polarity

**IMPORTANT NOTES**

1. A means for disconnection must be included in the fixed wiring in accordance with the current wiring regulations.
2. Dimming (DALI, DSI and Analogue) and QuickLink terminals have only isolation from mains and therefore should be wired in mains-rated cable and treated with the same respect as mains with regard to pair to pair wiring.
3. This equipment is designed to switch lights more frequently than normal manual operation. However, manufacturers of some particular lighting types (e.g. LED luminaires) may specify a maximum number of switching cycles and/or a maximum on-time in order to achieve a predicted lamp life. Please check with the manufacturer of the luminaire to ensure that they are compatible with automatic controls in this respect.

4. In order to achieve satisfactory light level regulating operation, a sensor must observe a substantially greater proportion of artificial light (from the luminaire) under its control than from neighbouring luminaires not under its control. This is particularly important when planning the installed array of linear luminaires that have an integral detector positioned at one end.

5. Due to limited space within the enclosure, it is not recommended that this luminaire(s) under its control than from neighbouring luminaires not under its control. This is particularly important when planning the installed array of linear luminaires that have an integral detector positioned at one end.

6. All information given in this document was correct at the time of publication.

**TECHNICAL SUPPORT**

+44 (0)1942 719229

**Honeywell Ex-Or**

St. Marks Court, North Street, Horsham, West Sussex, RH12 1BW, UK

+44 (0)1942 719229

Web: www.ex-or.com