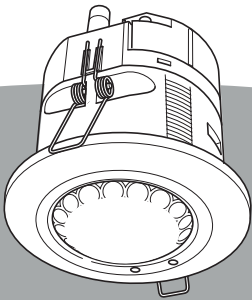


Installation Instructions

Honeywell



32345911-001 REVE

DLS-DALI Lighting Control System

Only suitably qualified personnel should install this equipment

Part Number	Flush Mount	Surface Mount	Lens tilting	Provides power to DALI Bus	Switch Input (Mains)	Commission with Light Touch app	Works with wireless BLE switches	SYLK/Wallbus Connection (to BMS)	Addressable DALI Luminaires per system
DALI64F	•		•			•	•		64
DALI64S		•	•			•	•		64
DALI64SYLK	•		•			•	•	•	64
DALI64SYLKFS	•	•	•			•	•	•	64
DALI64PSUF	•		•	•	1	•	•		64
DALI64PSUS		•	•	•	1	•	•		64
DALI64SYLKPSUF	•		•	•	1	•	•	•	64
DALI64SYLKPSUS		•	•	•	1	•	•	•	64
DALINETF	•								
DALINETS		•							

Warning: Total current provided on DALI Bus must never exceed 250mA. If using an additional power supply the DALI64PSU's integrated power supply must be disabled before external power is applied. PSU variants supply 150mA to the bus, never connect more than one PSU variant to the same DALI Bus.

Security Warning: After installation the DALI64 will NOT be protected by a password until it is configured using the Light Touch app. For details of securing the product and system see the General Security Best Practice for Ex-Or Products Information Sheet - D6004.

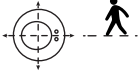
1) Determine Position

The unit should be positioned on the ceiling in the centre of the occupied space either flush mounted or surface mounted (e.g on a BESA box). Avoid exceeding maximum recommended mounting height.

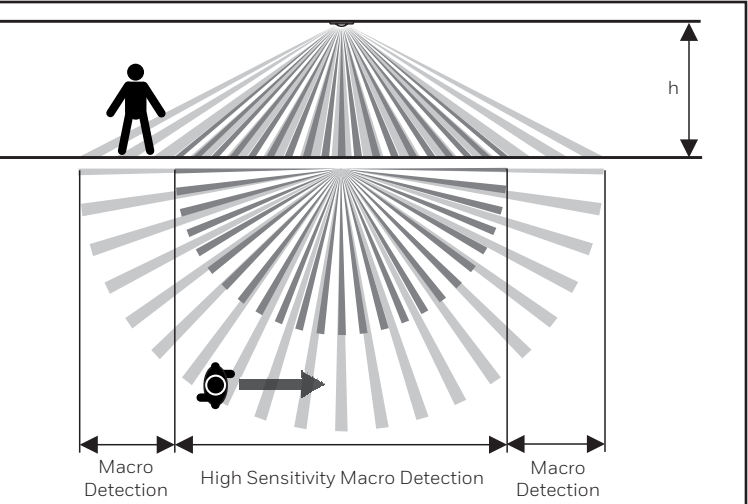
Aspect Ratio (diameter : height)		Max recommended mounting height (h)
Micro Detection - High Sensitivity	Macro Detection - Standard Sensitivity	
2.8:1	4:1	3.5m
7m diameter @2.5m height	10m diameter @2.5m height	

Avoid mounting next to an AC unit. For additional positioning please refer to '9 Set Tilt' overleaf.

The unit is more sensitive to movement when direction of travel is along the vertical and horizontal planes. To achieve optimal occupancy detection the sensor must be orientated as shown.



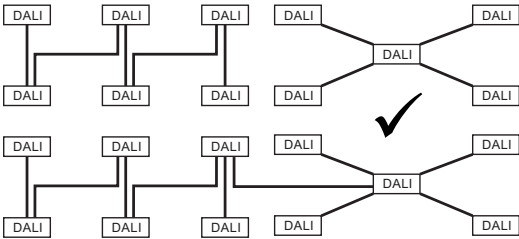
Optimum Orientation



2) Prepare Mounting Location and Run Cables

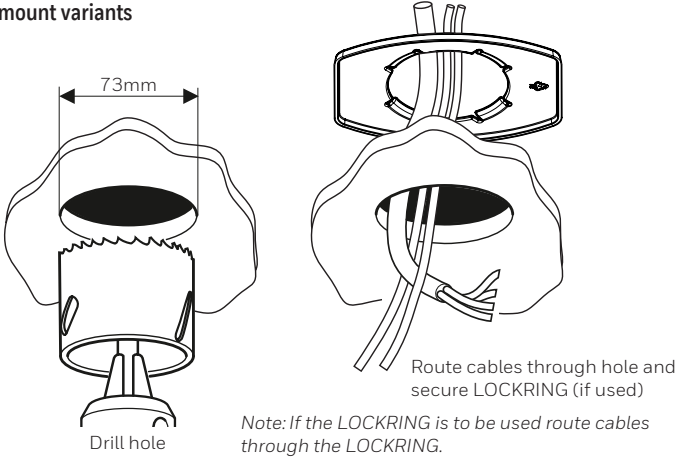
DALI Topology

DALI permits a free topology which means wiring can be done in daisy chain, star or a combination of these. Do not close the loop or ring connections.



Note: SYLK/Wallbus cable must be routed separately from other cables

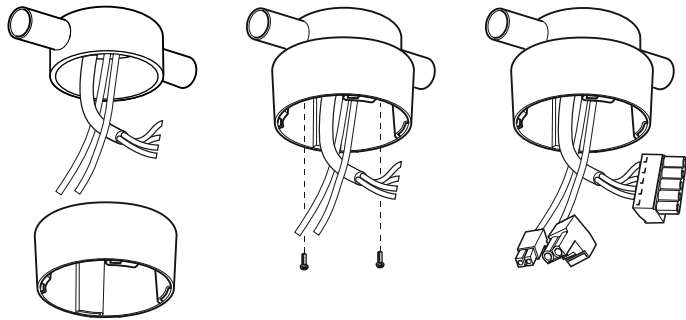
Flush mount variants



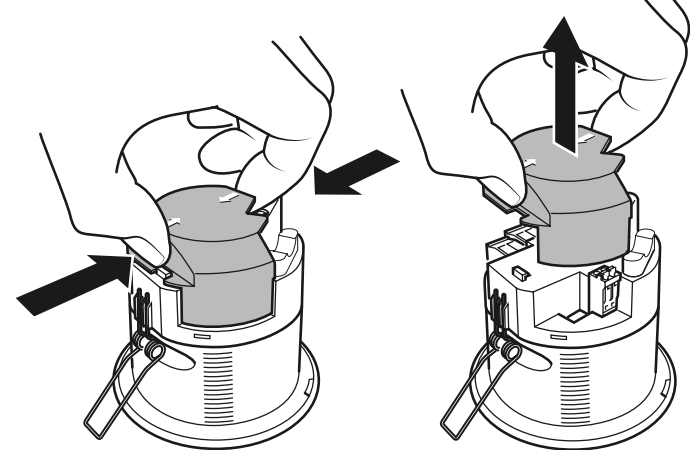
Surface mount variants

Product variants with 'S' suffix are supplied with the surface fitting kit (SURFMT) as standard. The surface mount kit can be ordered separately, order SURFMT.

The sensor may be mounted to any suitable surface, but is most commonly fixed to a conduit stop-end (BESA) box or bushed to trunking.



3) Remove Terminal Cover

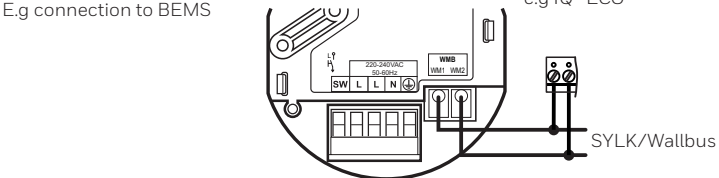


4) Make Electrical Connections

For example wiring configurations see Wiring Examples.

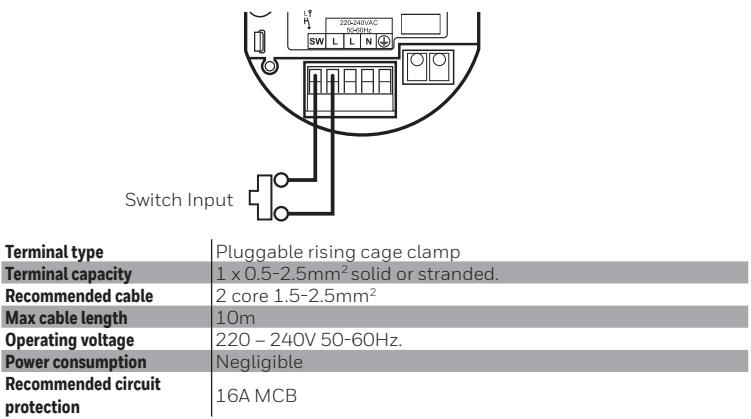
- Note:
- DALI gears (ballasts or drivers) are normally wired from an unswitched supply.
 - Ballasts or drivers must be DALI Control Gears complying to IEC 62386 V1 or V2.

SYLK/Wallbus Connections (SYLK only)



Terminal type	Pluggable rising cage clamp
Terminal capacity	1 x 0.5-2.5mm² solid or stranded.
Recommended cable	2 core 0.5-1.5mm²
Max cable length	60m

Mains Switch Input Connections (PSU only)



Terminal type	Pluggable rising cage clamp
Terminal capacity	1 x 0.5-2.5mm² solid or stranded.
Recommended cable	2 core 1.5-2.5mm²
Max cable length	10m
Operating voltage	220 – 240V 50-60Hz.
Power consumption	Negligible
Recommended circuit protection	16A MCB

DALI Bus Connections

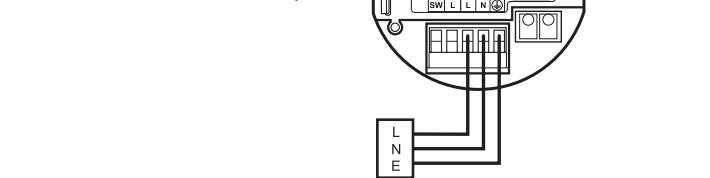
To prevent loose strands being outside the terminal a tool, e.g. a screwdriver, must be used to push the button on the terminal when stranded conductors are inserted.

Warning: Do not connect to 230V. Warning: The DALI Bus is not classified as SELV. The same procedures and safeguards must be applied as when working with mains voltage.

Terminal type	Pluggable screwless		
Terminal capacity	1 x 0.5-1.5mm² solid or stranded.		
Recommended cable	2 core 0.5-1.5mm²		
Max cable length		Cross Section	Maximum cable length at 25 °C
	Copper	0.50 mm²	112m
	Copper	0.75 mm²	168m
	Copper	1.00 mm²	224m
	Copper	1.50 mm²	300m

Max devices 64 DALI control gears (ballasts or drivers), 64 DALI control devices (switch input Modules, network sensors etc); Dependant on power requirements of connected devices. 250mA max available depending on how DALI Bus is powered. PSU variants can supply 150mA to DALI Bus.

Mains Power Connections (PSU only)



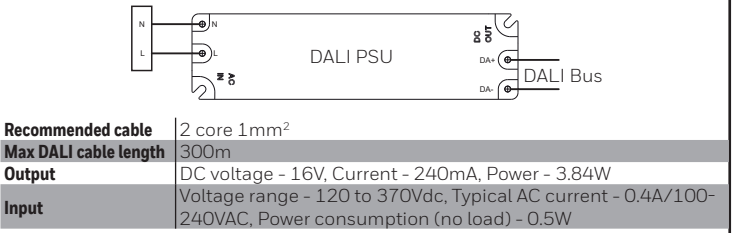
Terminal type	Pluggable rising cage clamp
Terminal capacity	1 x 0.5-2.5mm² solid or stranded.
Recommended cable	1.5-2.5mm²
Max cable length	Refer to appropriate regulations
Operating voltage	220 – 240V 50-60Hz.
Power consumption	3W active, <0.5W static
Recommended circuit protection	16A MCB

Warning: Total current provided on DALI Bus must never exceed 250mA. If using an additional power supply the DALI64PSU's integrated power supply must be disabled before external power is applied. PSU variants supply 150mA to the bus, never connect more than one PSU variant to the same DALI Bus.

5) Connect DALI PSU (If required)

DALI64 and DALINET are powered by the DALI bus. If a PSU variant is not being used a separate DALI PSU is required.

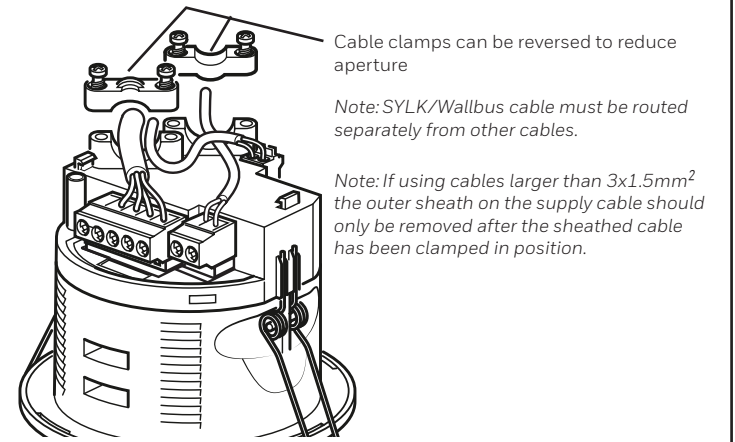
The DALI PSU must be installed according to the manufacturer's instructions. An example is shown below.



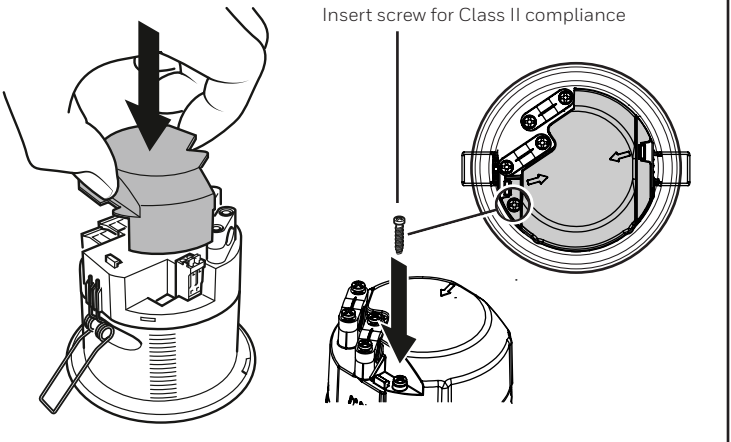
Recommended cable	2 core 1mm²
Max DALI cable length	300m
Output	DC voltage - 16V, Current - 240mA, Power - 3.84W
Input	Voltage range - 120 to 370Vdc, Typical AC current - 0.4A/100-240VAC, Power consumption (no load) - 0.5W

Warning: Total current provided on DALI Bus must never exceed 250mA.

6) Fix Cable Clamps (optional for 1mm²-2.5mm² sheathed round cables)

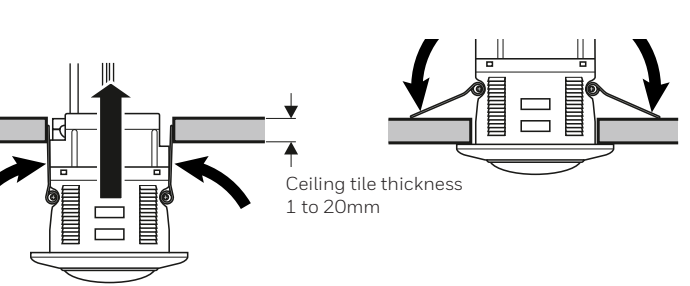


7) Replace the Terminal Cover



8a) Fix to Ceiling (Flush mount)

Standard Method



8b) Fix to Ceiling (Flush mount)
LOCKRING Method
The LOCKRING cannot be used when there is no access to ceiling void.

Remove springs

LOCKRING

Ceiling tile thickness
1mm to 20mm

NOTE: To remove sensor rotate LOCKRING and pull up

12) Perform Walk Test
In order to verify correct installation, walk testing is recommended. Follow the instructions provided with the Light Touch commissioning app. During the walk test the connected lights will be switched off until movement is detected.

1

Stand out of the unit's viewable footprint or remain motionless within the viewable footprint and wait for the lights to go out.

2

Wait a further 2 seconds for the unit to stabilise then make a movement, the lights should come back on. Observe that the detection / non-detection is as expected.

IMPORTANT NOTES

- A means for disconnection must be incorporated in the fixed wiring in accordance with the current wiring regulations.
- DALI terminals have only basic isolation from mains and therefore should be wired in mains-rated cable and treated with the same respect.
- In order to achieve satisfactory light level regulating operation, a sensor must observe a substantially greater proportion of artificial light from the luminaire(s) under its control than from neighbouring luminaires not under its control. This is particularly important when planning the installed layout of linear luminaires that have an integral detector positioned at one end.
- Due to limited space within the enclosure, it is not recommended that this product be used as a wiring junction box. System connections should be made elsewhere and wiring not looped within the product enclosure.
- All information given in this document was correct at the time of publication.

9) Fix to Ceiling (Surface mount)
8 segments on the collar allow up to four different rotational positions for the sensor, when inserting the tabs into slots (1-8).

Setting the correct position is important when using products with tilting lenses.

tab

Drill point for optional secure locking with a 3mm tamperproof screw (not supplied)

13) Out of Box Behaviour
Prior to commissioning the unit operates in DALI broadcast (all lights on/off/dim), all DALI switches act as OneSwitch. The default settings are as follows:

Password Protection	Not configured
Time Delay	15 Minutes
Photocell Setting	Always turn on when occupied
Dimming Level	100%
Occupancy Mode	Automatic (lights Auto On, Auto OFF)
Movement Sensitivity	Very high
Mains Switch input	One Switch
DLS2IM Switch inputs	One Switch

14) Configuration
Once installed the unit must be configured using the Light Touch commissioning app to create the required lighting control installation, and configure a password. This is especially important when the DALI Bus is across multiple rooms. DALI64 uses the Light Touch app for commissioning – see the Light Touch by Honeywell Manual - W6024.

10) Set Tilt (if required)
Some variants 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 up to 67% (at full tilt). This may be useful in cases where the ideal mounting location is not available. The increased range is indicated below.

NOTE: Do not place in a position where access is limited

15) Diagnostics
LED indications are provided to help with fault-finding.

NOTE: With regard to safety, the DALI Bus connections should be treated with the same respect as mains.

LED indication	Meaning
G G G	Movement detected
Flashing green	DALI Bus error – e.g. Possible short circuit, too many luminaires, too many sensors or input modules, or DALI power supply or Lighting Control Application sensors connected with wrong polarity.
R R R R R R R	3 red flashes every 2 seconds
B	Communication with IR hand-held remote or Bluetooth device in progress
Intermittent blue	

11) Mask Lens (if required)
Two lens masks are provided which may be used to restrict the viewable footprint of the sensor e.g. unwanted detection through a doorway. Cut the mask segment(s) as desired and install by pushing the mask lip between the bezel and the lens on the sensor as shown.

Uninstall (Surface mount)
Insert a flat headed screwdriver into the slot as shown and twist the collar anti-clockwise to release. To separate the unit from the surface mount casing, push a flat headed screwdriver onto the tab via the inside void of the casing and pull the unit upwards.

Wiring Examples
Basic System
A basic system can be created similar to the example wiring shown below.

Extended System
Additional devices can be used to extend the functionality of the system.

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