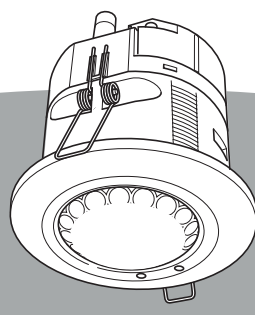


Installation Instructions



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									64
DALINETS									64

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.

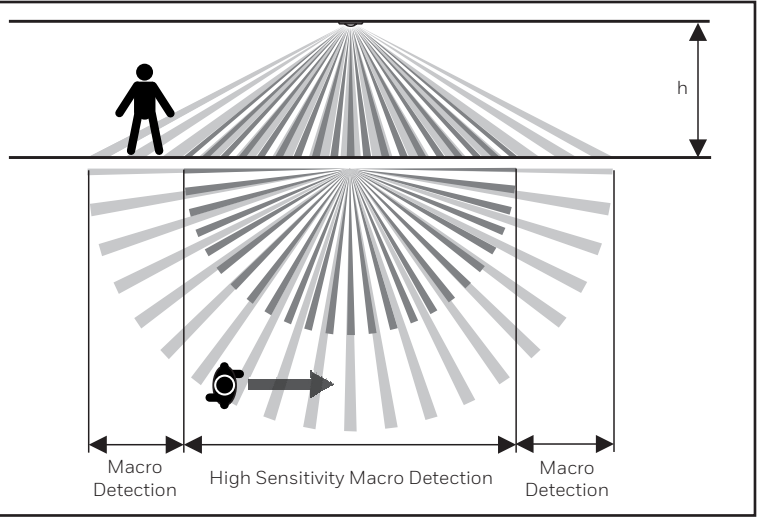
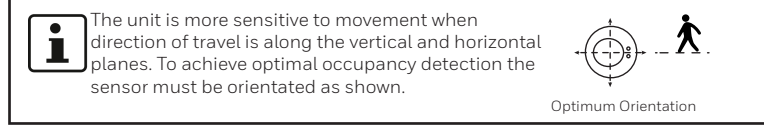
Security
Warning: After installation the DALI64 will NOT be protected by a password until it is configured using the Light Touch app. For details of securing the product and system see the General Security Best Practice for Ex-Or Products Information Sheet - D6004.

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.



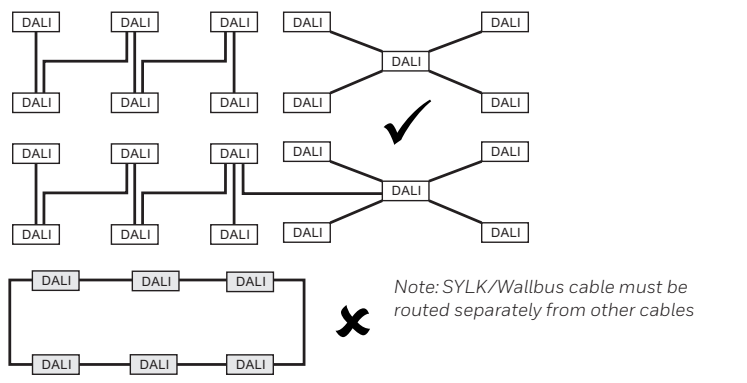
DLS-DALI Lighting Control System

Warning: Only suitably qualified personnel should install this equipment

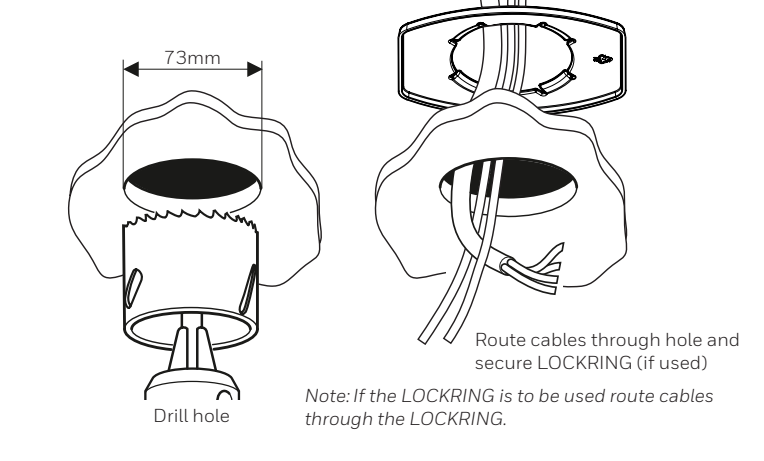
32345911-001 REV E

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.

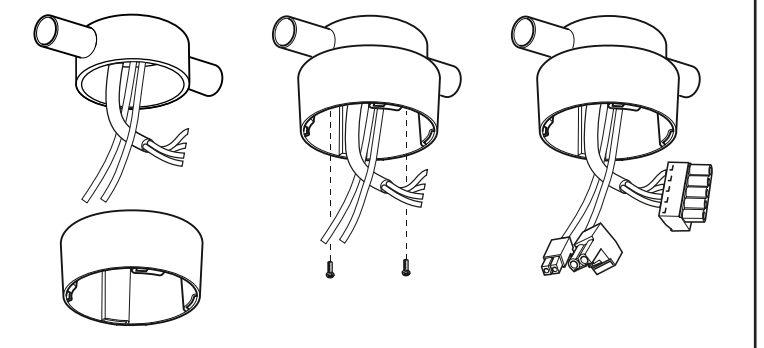


Flush mount variants

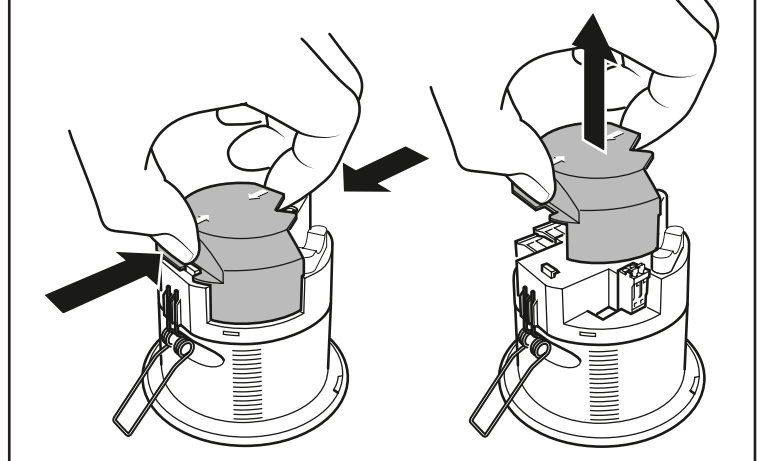


Surface mount variants

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.

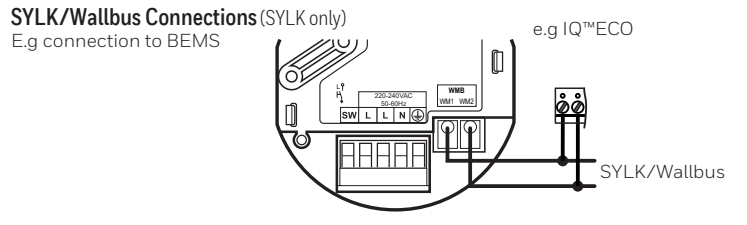


3) Remove Terminal Cover



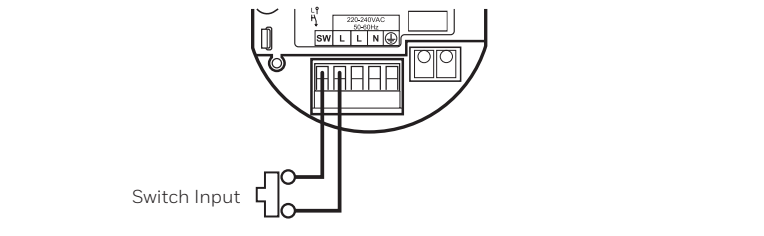
4) Make Electrical Connections

For example wiring configurations see Wiring Examples.
Note:
 1. DALI gears (ballasts or drivers) are normally wired from an unswitched supply.
 2. Ballasts or drivers must be DALI Control Gears complying to IEC 62386 V1 or V2.



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

Mains Switch Input Connections (PSU only)



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

DALI Bus Connections

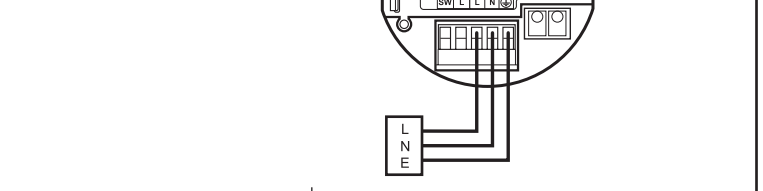
To prevent loose strands being outside the terminal a tool, e.g. a screwdriver, must be used to push the button on the terminal when stranded conductors are inserted.

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 0.5-1.5mm ² solid or stranded.		
Recommended cable	2 core 0.5-1.5mm ²		
Max cable length	Copper	0.50 mm ²	112m
	Copper	0.75 mm ²	168m
	Copper	1.00 mm ²	224m
	Copper	1.50 mm ²	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)



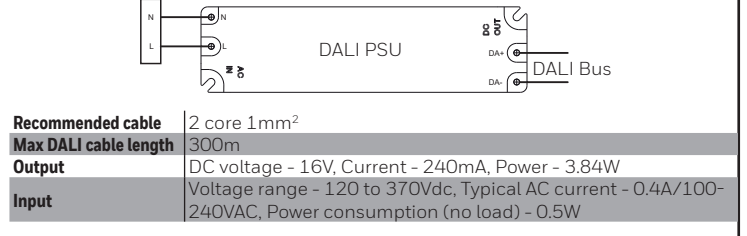
Terminal type	Pluggable rising cage clamp
Terminal capacity	1 x 0.5-2.5mm ² solid or stranded.
Recommended cable	1.5-2.5mm ²
Max cable length	Refer to appropriate regulations
Operating voltage	220 - 240V 50-60Hz.
Power consumption	3W active, <0.5W static
Recommended circuit protection	16A MCB

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)

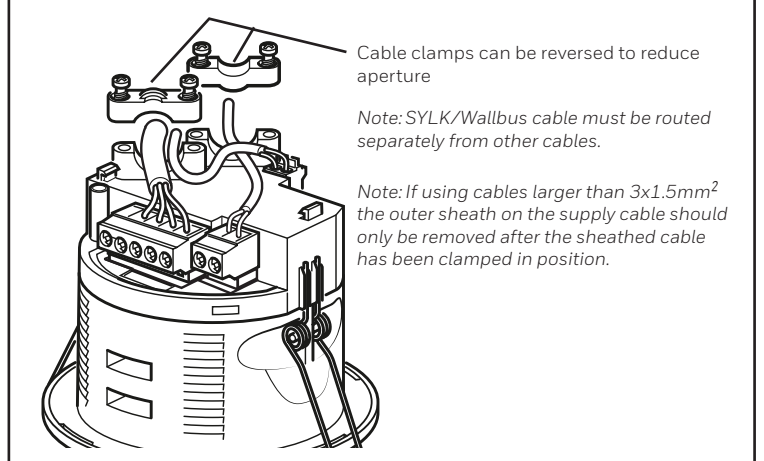
DALI64 and DALINET are powered by the DALI bus. If a PSU variant is not being used a separate DALI PSU is required.

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

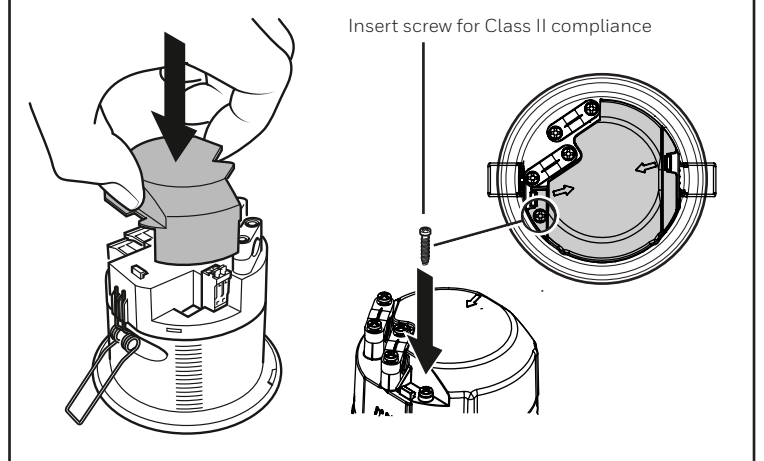


Warning: Total current provided on DALI Bus must never exceed 250mA.

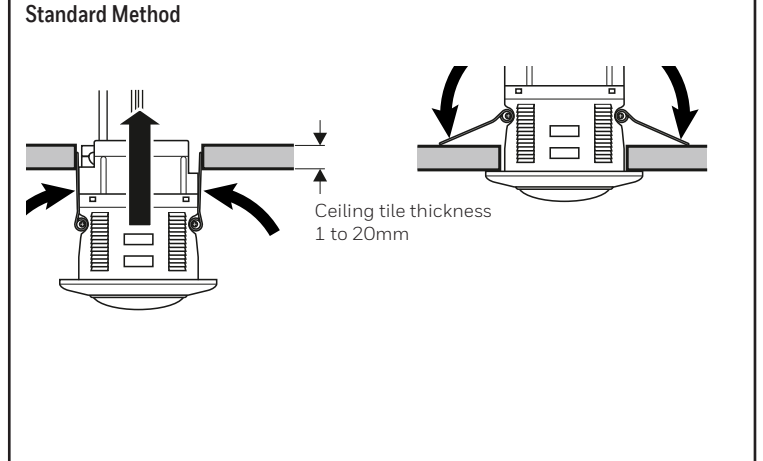
6) Fix Cable Clamps (optional for 1mm²-2.5mm² sheathed round cables)



7) Replace the Terminal Cover



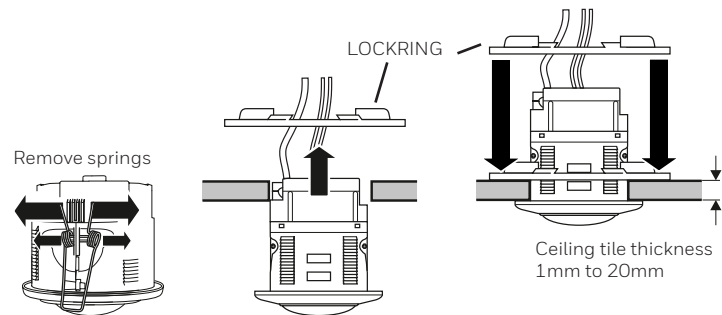
8a) Fix to Ceiling (Flush mount) Standard Method



8b) Fix to Ceiling (Flush mount)

LOCKRING Method

The LOCKRING cannot be used when there is no access to ceiling void.

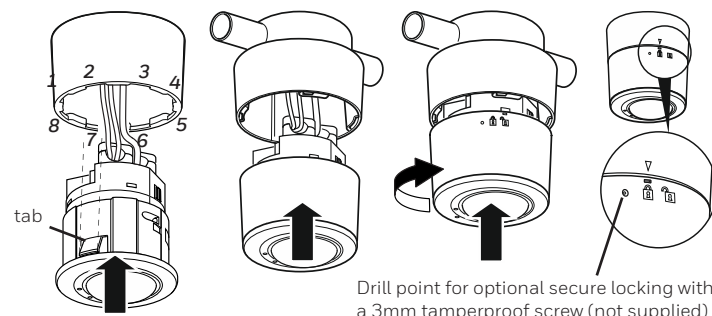


NOTE: To remove sensor rotate LOCKRING and pull up

9) Fix to Ceiling (Surface mount)

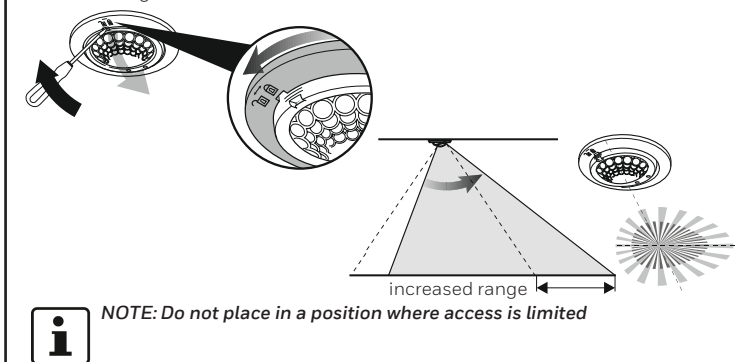
8 segments on the collar allow up to four different rotational positions for the sensor, when inserting the tabs into slots (1-8).

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



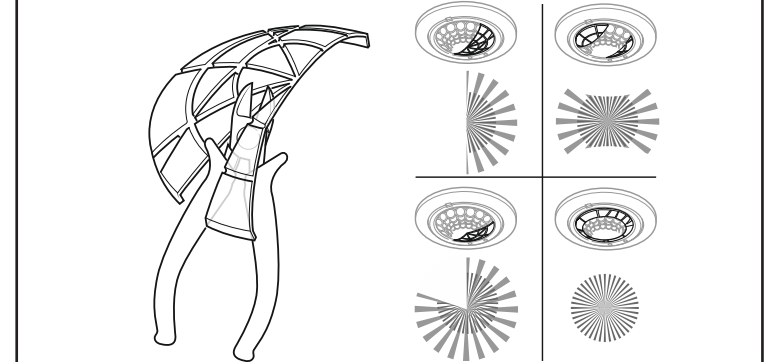
10) Set Tilt (if required)

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.



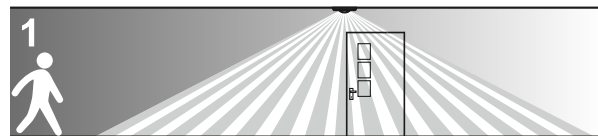
11) Mask Lens (if required)

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.



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.



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



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.

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.

15) Diagnostics

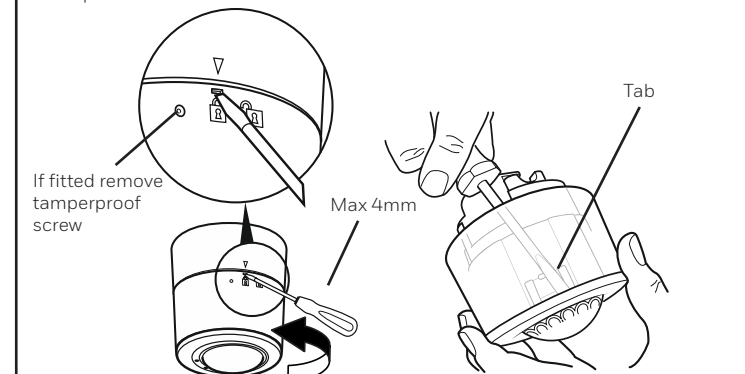
LED indications are provided to help with fault-finding.

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

LED indication	Meaning
	Movement detected
	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.
	Communication with IR hand-held remote or Bluetooth device in progress

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.



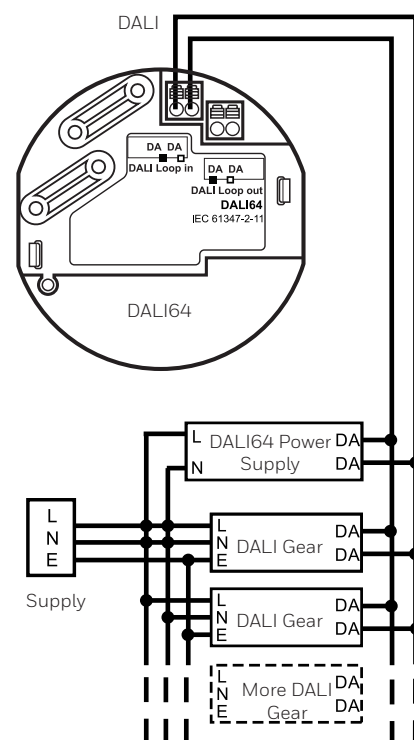
IMPORTANT NOTES

- 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.

Wiring Examples

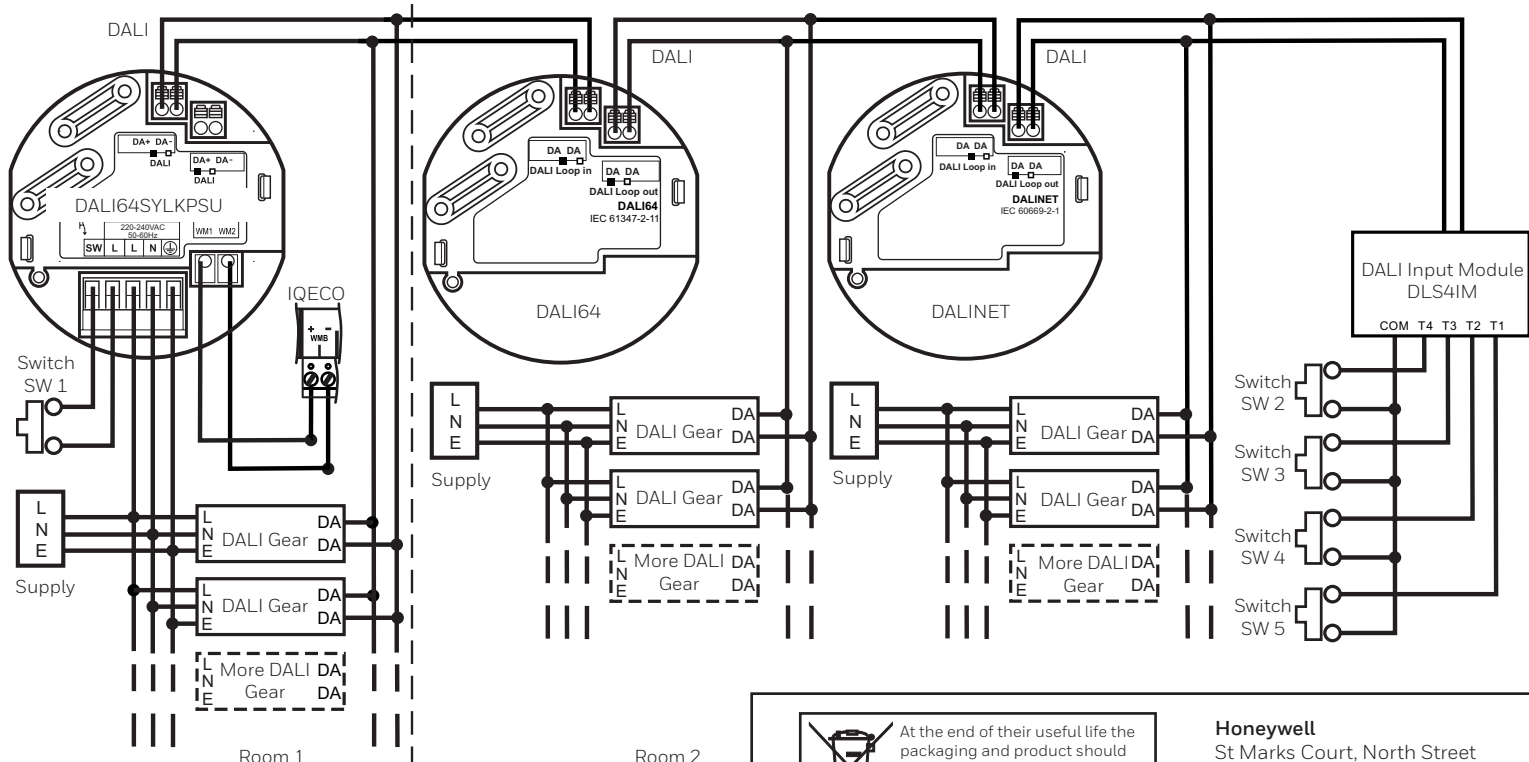
Basic System

A basic system can be created similar to the example wiring shown below.

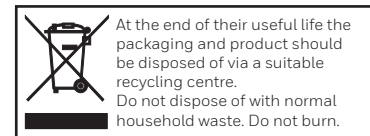


Extended System

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



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.



Honeywell
St Marks Court, North Street
Horsham, West Sussex RH12 1BW
Tel: +44 (0)1942 719229
Web: www.ex-or.com

