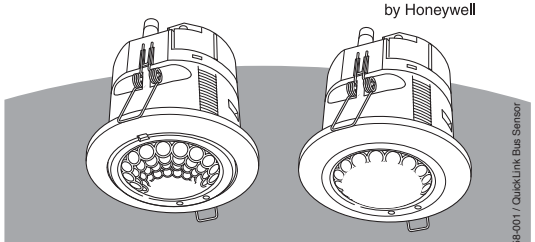
Installation Instructions

Ex-Or by Honeywell



LightSpot HD QuickLink Bus PIR Sensors

Only suitably qualified personnel should install this equipment

50093558-001 / QuickLink Bus Sensor

Part Number	Flush Mount	Surface Mount	Mains Switching	Low Voltage Switch Inputs	Office	Mid Bay	High Bay	Tilting
LS3260F	•				•			
LS3260SM		•			•			
LS3270F	•			•	•			
LS3270SM		•		•	•			
LS3283RF	•		•	•	•			•
LS3283RSM		•	•	•	•			•
LS3260MBF	•					•		
LS3260MBSM		•				•		
LS3260HBF	•						•	
LS3260HBSM		•					•	

Positioning the Sensor

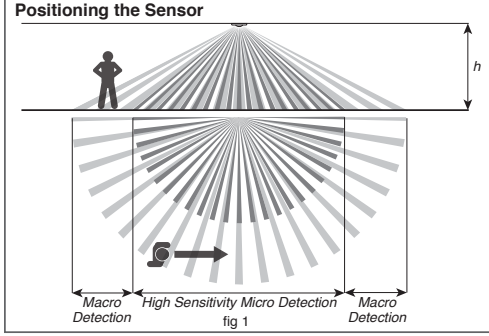


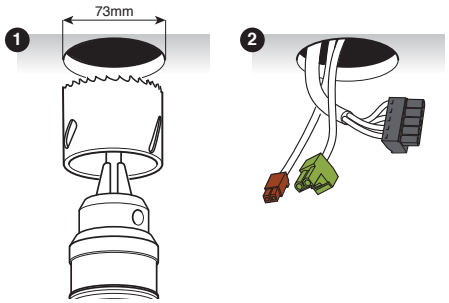
fig 1

The sensor should be positioned on the ceiling in the centre of the occupied space. 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 AC unit.
For additional information on positioning please refer to Tilt and Lock the Sensor, overleaf.

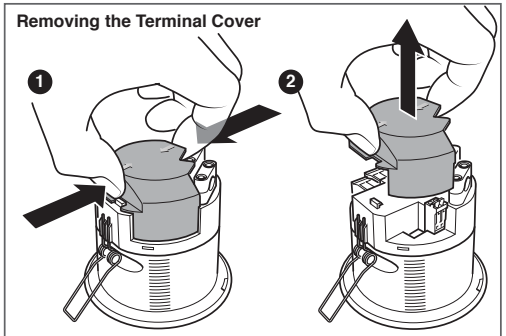
The sensor is more sensitive to movement across the beam compared with movement towards the centre.

	Aspect ratio (diameter : height)		
Type	Micro Detection - High Sensitivity	Macro Detection - Standard Sensitivity	Max recommended mounting height
Office	2.8:1 (7m diameter @ 2.5m height)	4:1 (10m diameter @2.5m height)	3.5m
Mid Bay	N/A	2:1 (20m diameter @10m height)	12m
High Bay	N/A	1.9:1 (27m diameter @14m height)	16m

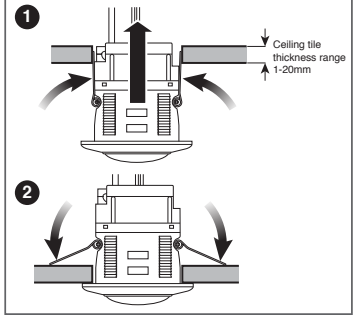
Installing the Sensor into Ceiling Tile



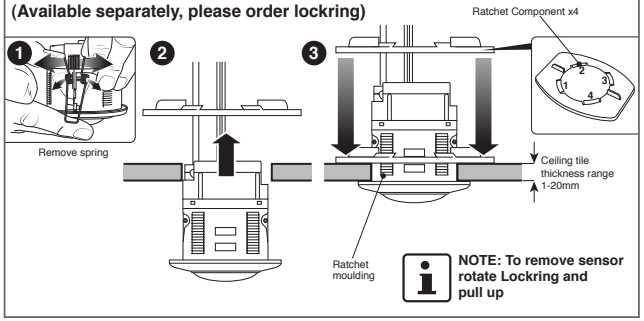
Removing the Terminal Cover



Fixing to Ceiling – Standard Method



Fixing to Ceiling – Secure Lockring Method (Available separately, please order lockring)



NOTE: To remove sensor rotate Lockring and pull up

Electrical Connections

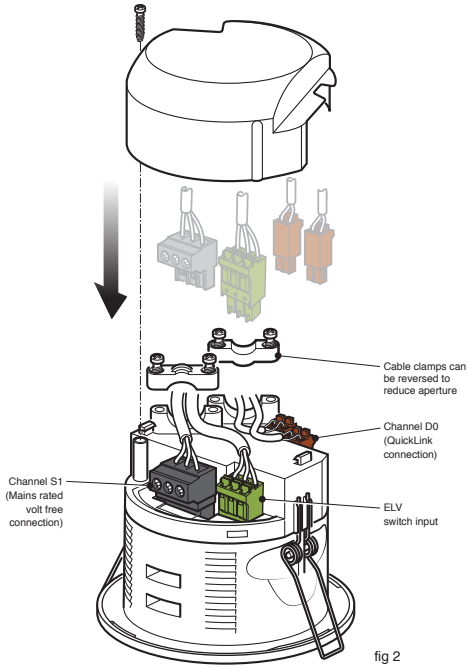


fig 2

Adding an Extra Low Voltage Sensor Using QuickLink Bus (fig 3)

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 – this enables fast and convenient installation. At least one sensor on the QuickLink bus must be mains-powered, then a further 3 (or fewer) low voltage sensors may be added. It is also permissible to connect two mains powered sensors together via the QuickLink bus.

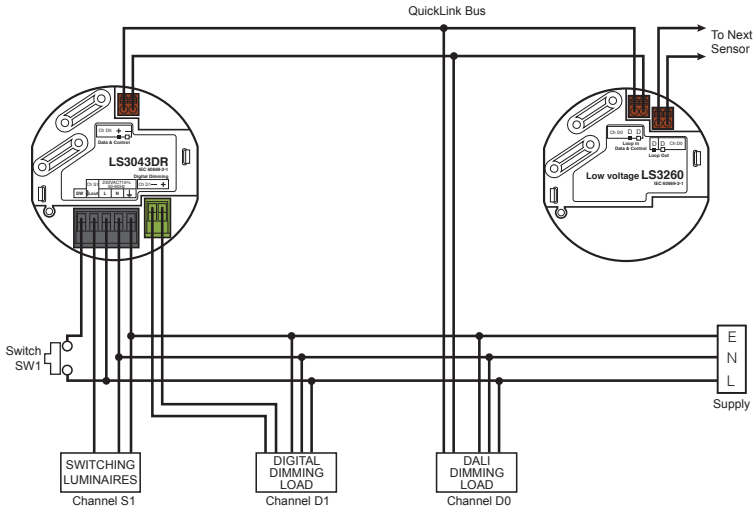


fig 3

QuickLink System (fig 4)

The diagram below shows a more sophisticated low voltage sensor added to the QuickLink bus. This sensor not only extends the presence detection coverage as in the diagram below, but also adds the capability to control an additional switched load (volt free relay) and provides a 3-wire ELV switch input which may be configured for two single pole switches or a single pole two-way centre-off retractive switch e.g. MK K4900WHI.

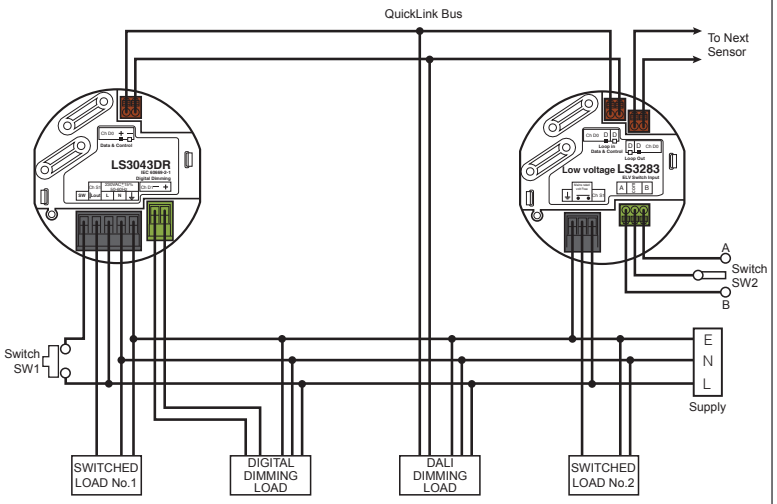


fig 4

Fixing to Ceiling – Surface Mounting (optional)

Product variants with "SM" suffix on the 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 mounted to any suitable surface, but is most commonly fixed to a conduit stop-end (fig 5 set) (BESA) box or bushed to trunking.

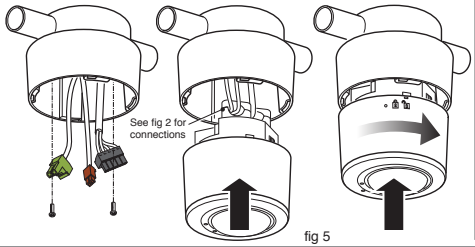


fig 5

Uninstalling and Repositioning

Insert a flat headed screwdriver into the slot as shown and twist the collar anti-clockwise to release, fig 6. 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 7.

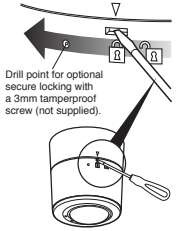


fig 6

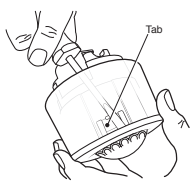
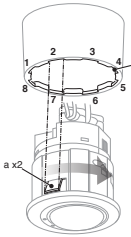


fig 7



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

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

Tilt and Lock the Sensor

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 incresed range is indicated in fig 8.

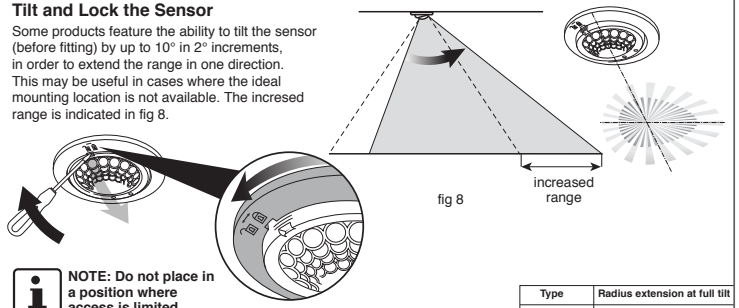


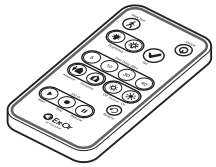
fig 8

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

Type	Radius extension at full tilt
Office	up to 67%

WalkTesting / Lens Masking

In order to verify correct installation, walk-testing is recommended. An infrared commissioning tool will be required to put the detector(s) into walk-test mode. Two infrared commissioning tools are available: QuickSet and QuickSet Pro (Sold separately).


QuickSet

QuickSet Pro

Follow the instructions provided with the selected commissioning tool. While the sensor is in walk-test mode, the LEDs on the sensors are automatically enabled and it will turn on the lighting for only a few seconds each time occupancy is detected.

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

Wait a further 5 seconds for the sensor to stabilise then make a movement, the lights should come back on. Observe that the detection / non-detection is as expected.

NOTE: After 5 minutes, the sensor will automatically exit walk-test mode without requiring any action from the operator.

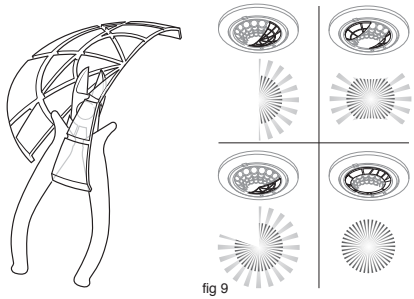


fig 9

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 in fig 9.

This range of products features a rich set of adjustable parameters that may be programmed via the hand-held infrared commissioning tools in order to create a sophisticated lighting control installation. There are no physical switches or potentiometers on the product.

Out of Box Behaviour

Prior to commissioning, the default settings for each channel of the sensor will be as follows:

Time Delay: 20 minutes

Photocell Setting: Always turn lights on when occupied

Dimming Level: 100%

Occupancy Mode: Automatic (lights Auto ON, Auto OFF)

Movement Sensitivity: Maximum

Digital Ballast Type DALI

NOTE: Please go to www.ex-or.com for a complete list of programmable parameters.

Technical Data

	Earth	Mains Rated Volt Free	ELV Switch Input	QuickLink Loop In	QuickLink Loop Out
Marking	E		A Com B	D D	D D
Colour	Black		Green	Red	Red
Terminal type	Pluggable rising cage clamp		Pluggable screwless	Pluggable screwless	Pluggable screwless
Terminal capacity	1 x 0.5-2.5mm sq solid or stranded		1 x 0.5-1.5mm sq solid or stranded	1 x 0.5-1.5mm sq solid or stranded	1 x 0.5-1.5mm sq solid or stranded
Recommended cable	Derive from appropriate wiring regulations		0.75mm sq	0.75mm sq	
Maximum length			10m	100m total system length	
Function	Termination only	Output	Input	Input	Output
Operating voltage	230VAC+/-15% 50-60Hz Recommended circuit protection: 16A MCB		(ELV)	12-22VDC	
Power consumption	Zero		Negligible	160mW (12mA)	160mW (12mA) per additional device
Maximum Load current	10A (maximum inrush 80A)		N/A	N/A	N/A
Permissible load types/connections	Magnetic-ballasted fluorescent, Compact fluorescent, Electronic-ballasted fluorescent, LED (maximum inrush 80A), Tungsten lamps (max 6A)		N/A	N/A	N/A

Diagnostics

Detectable wiring faults are always indicated by the LEDs, irrespective of whether they are enabled.

LED indication	Meaning
G G G Green in response to movement or not	Movement detected
B B 1 blue flash every 2 seconds	Light level demand – photocell striving for more light in order to reach set-point
B B B B 2 blue flashes every 2 seconds	A manual switch is being activated
R R Long red flash every 2 seconds	100hr lamp burn-in is in progress – this means dimming will not be permitted for the duration
R R R R 2 red flashes every 2 seconds	Channel D0 error – e.g. 1. Too many QuickLink mains-powered devices connected together, or 2. Dimming terminals connected somewhere they shouldn't be
R R R R R R 3 red flashes every 2 seconds	Channel D0 error – e.g. 1. Possible short circuit, or 2. Too many luminaires, or 3. Too many QuickLink low voltage sensors, or 4. QuickLink mains-powered sensors connected together with wrong polarity

⚠ IMPORTANT NOTES

1. A means for disconnection must be incorporated in the fixed wiring in accordance with the current wiring regulations.
2. Dimming and QuickLink terminals have only basic isolation from mains and therefore should be wired in mains-rated cable and treated with the same respect as mains with regard to wiring practice.
3. This equipment is designed to switch lights no more frequently than normal manual operation. However, manufacturers of some particular lighting types (e.g. '2D' luminaires) may specify a maximum number of switching cycles and/or a minimum on-time in order to achieve a predicted lamp life. Please check with the manufacturer of the luminaires 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(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.
5. All information given in this document was correct at the time of publication.

TECHNICAL SUPPORT
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At the end of their useful life the packaging and product should be disposed of via a suitable recycling centre.
Do not dispose of with normal household waste. Do not burn.

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