

# PRE3205 - VFC

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Ceiling mounted photocell with volt free contact



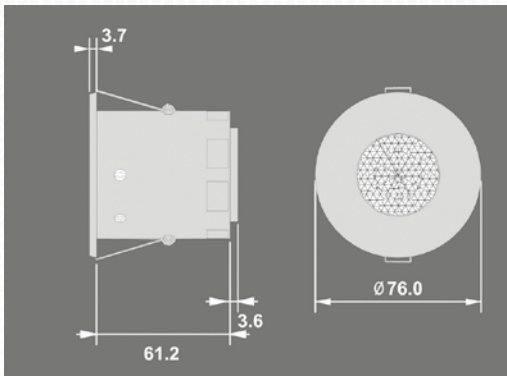
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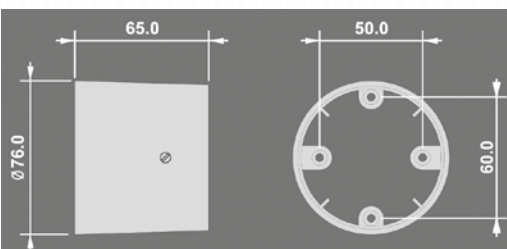
## SPECIFICATION

<b>Load</b>	Channel 1 (switching): 10A of lighting and/or ventilation including incandescent, fluorescent, compact fluorescent, low voltage (by switching the primary of transformer).  Channel 2 (dimming): Maximum number of DSI or DALI ballasts is 10 unless the relay is disabled then it is 20.
<b>Power consumption</b>	On 745mW, Off 264mW
<b>Supply voltage</b>	220-240 Volts AC 50 Hz
<b>Time out period</b>	Adjustable between 1 and 99 minutes (PRE5901 only), 10 seconds to 30 minutes (PRE5903)
<b>Terminal capacity</b>	2.5mm <sup>2</sup>
<b>Material</b>	Flame retardant ABS/PC
<b>Type</b>	Class 2
<b>IP Rating</b>	IP40
<b>Temperature</b>	-10°C to 35°C
<b>Humidity</b>	5 to 95% non-condensing
<b>Compliance</b>	EMC-2004/108/EC LVD-2006/95/

PRE3205-VFC



PRE3BB



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## OPERATION

The ALC-PRM-VFC photocell will turn lighting on when the ambient light falls below a preset level. The lighting will then be turned off when the total light level rises above a separate preset level. The unit also has a switch input for manual override.

An integral, adjustable time delay prevents nuisance switching caused by, for example, dark clouds. The unit has a voltage free changeover output which can be used to switch, a BMS or lighting control system as well as switching a load directly.

All functionality is fully programmable using an IR handset.

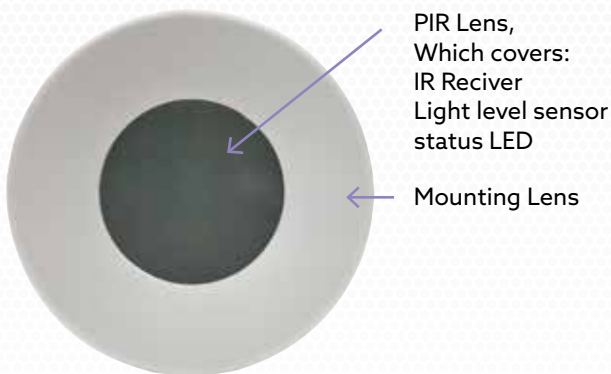
Three variants are available (this manual only covers the PRE3205-VFC):

PRE3205-VFC Mains voltage, Volt free contact

PRE3205-AD 1-10V Analogue dimming

PRE3205-DD Digital dimming Dali and DSI

## FEATURES



### IR Receiver

Receives control and programming commands from an IR (infrared) handset.

### Light Level Sensor

Measures the overall light level in the detection area

### Status LED

The LED flashes Red to indicate the following:

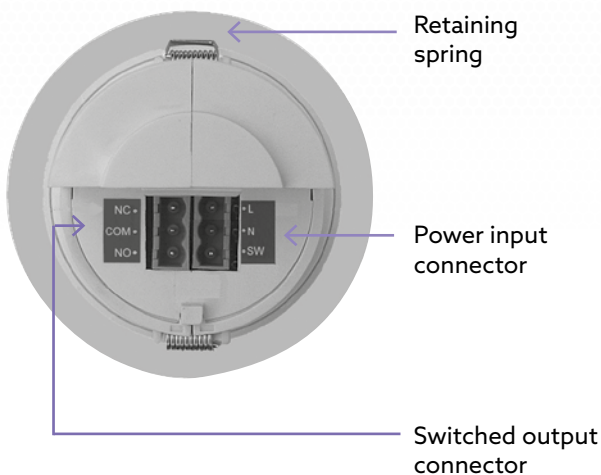
**Valid setting received**

### Power Input Connector

Used to connect mains power to the unit. Live in, Neutral in and Live trigger/switch.

### Switch Output Connector

Used to connect a switched load. Normally open, Normally closed and Common connections.



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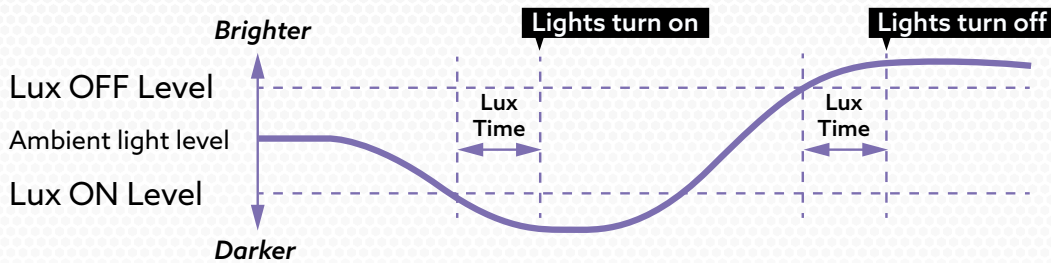
## INSTALLATION

### Choosing a suitable location:

The PRE3205 is designed to be ceiling mounted. Avoid placing the sensor where direct sunlight may enter the sensor element.

### Sensor Functionality:

The device can be made dependant on the ambient light level using the Lux On level and Lux Off level parameters.



### Maintained illuminance (daylight harvesting)

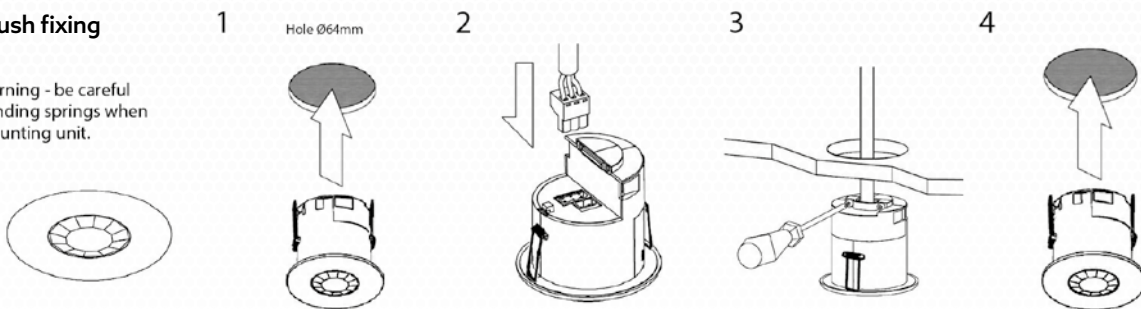
The detector measures the overall light level in the detection area and calculates the correct output for the lumiares, to achieve a preset lux level (Maintained illuminance or daylight harvesting).

## INSTALLATION

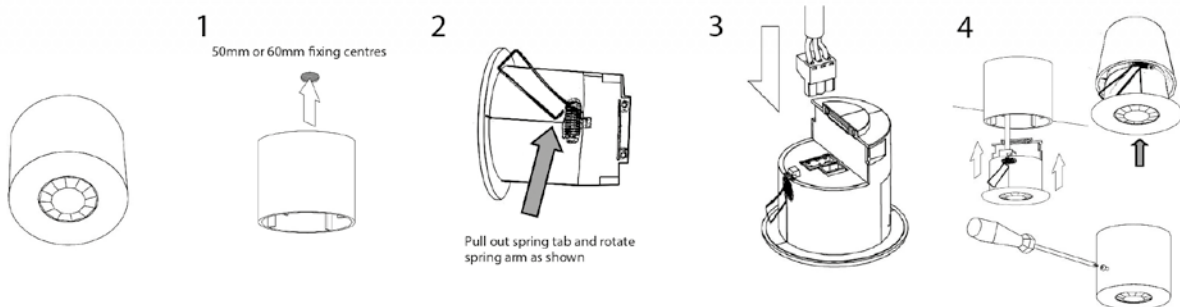
The PRE3205-AD is designed to be ceiling mounted:

### • Flush fixing

Warning - be careful bending springs when mounting unit.



### • Surface fixing, using the optional surface mounting box (part no. PRE3BB).



The PRE3205 is designed to be mounted using either Flush fixing, or surface fixing, using the optional Surface Mounting Box (part no. PRE3BB). Both methods are illustrated above.

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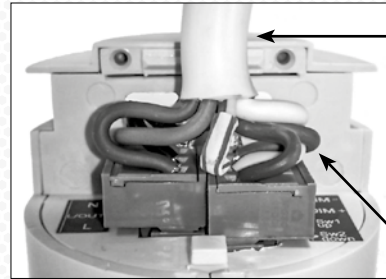
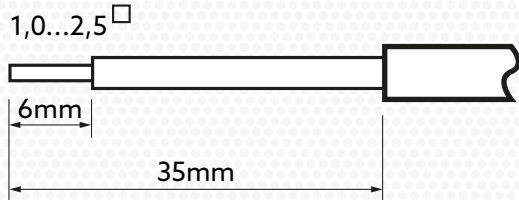
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## WIRE STRIPPING DETAILS

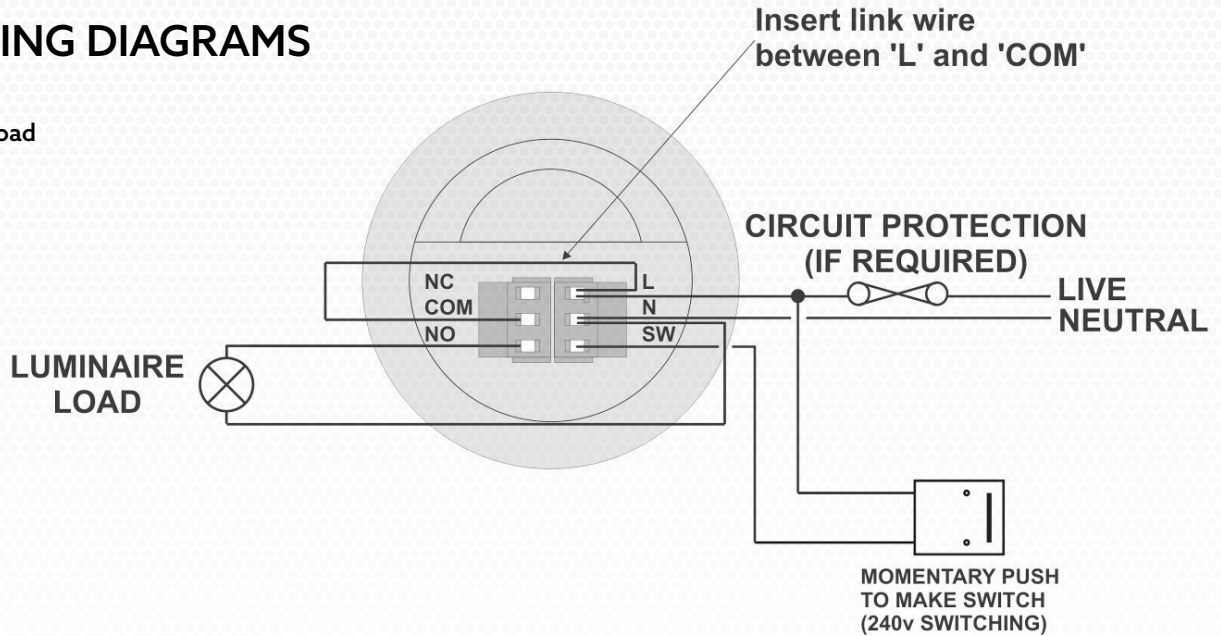


**Important**  
Ensure that the cables are formed as shown before fixing the cable clamp. The clamp **MUST** clamp the outer sheath only.

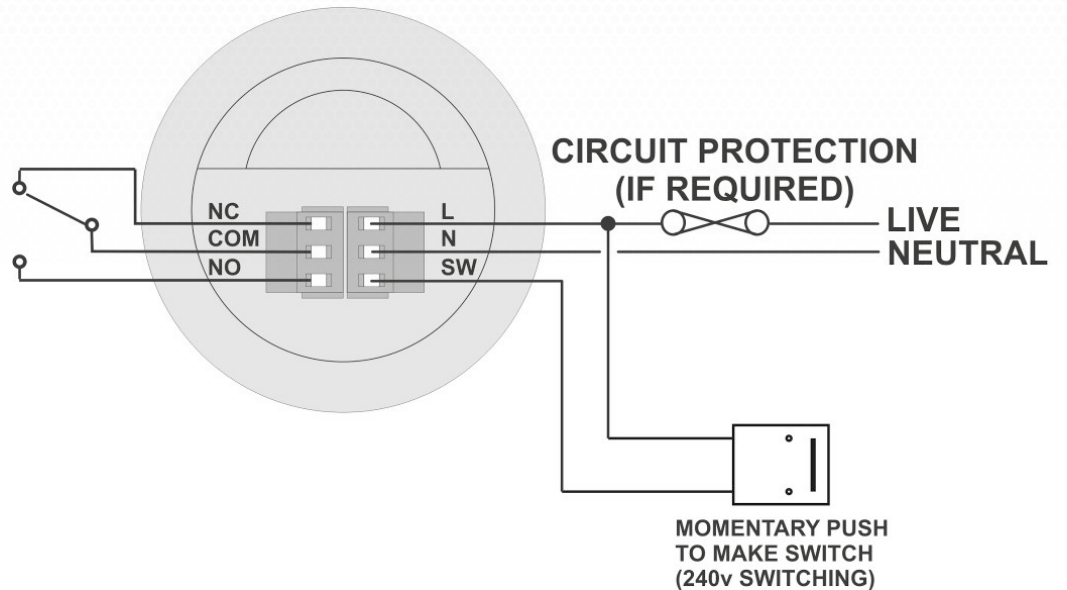
Bend cores as shown

## WIRING DIAGRAMS

Mains load



Volt free contact



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## BASIC PROGRAMMING

The functionality of the PRE3201-DD is controlled by a number of parameters which can be changed or programmed by any of the following devices:

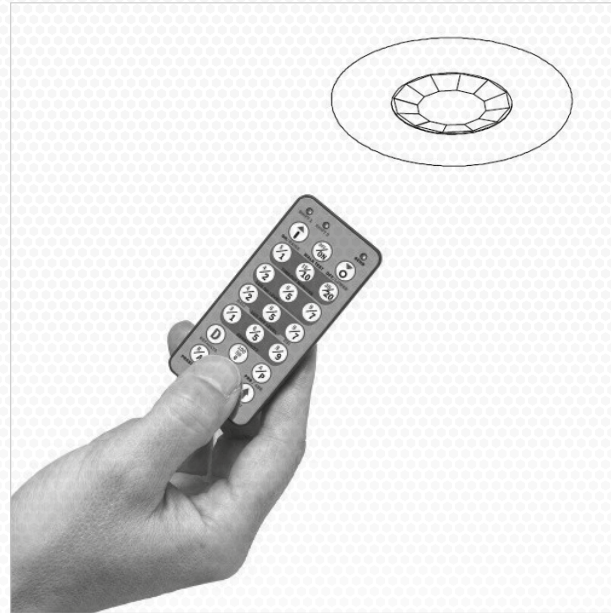
- **PRE5903** See next page for programming functions
- **PRE5900L** Infrared handset (with LCD). See user guide for full programming details.

For most basic programming operations the PRE5903 handset can be used. The following procedures are based on using this device.

Point the handset at the sensor and send the required programming commands to the unit as shown to the right.

Valid commands will be indicated by a red LED flash. See page 1 for details of other LED response.

Note: other functions on the PRE5903 which are not shown are not applicable to this product.



Parameter name	Default value	Number of shift key presses				UHS5 Handset Graphics	Description
		0	1	2	3		
		Shift 1 Shift 2	Shift 1 Shift 2	Shift 1 Shift 2	Shift 1 Shift 2		
		Button activation					
On		On					Turn lights on.
Off/Lower		Off					Turn lights off.
Lux on level (Switch level on)	9	2, 5 & 7	4, 6 & 9				Lux level setting to prevent the luminaires being switched on if the ambient light level is sufficient (adjustable between 1 and 9). The luminaires will always be switched on at level 9.
Light level	6 (600)			2 (200) 5 (500) 7 (700)	4 (400) 6 (600) 9 (900)		Sets a target light level to be maintained by the lighting system.
Lux off level (Switch level off)	9	2, 5 & 7	4, 6 & 9				Lux level setting to switch the luminaires off during occupancy if the ambient light level goes above the setting (adjustable between 1 and 9). Level 9 will always keep the lights on. This setting can be used for "window row setting".*
Defaults				D			Returns the unit to the default settings.
Shift							Use this button to select the settings in red and blue signified by the 'Shift 1' and 'Shift 2' LEDs.

\* NOTE: The Lux Off Level value must always be greater than the Lux On Level value.

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Parameter Name	Default Value	Range / Options	Description	PRE9503	PRE5901
<b>Detector parameters</b>					
Lux time	0	0 (disabled) 1-99 minutes	To prevent nuisance switching, an adjustable time delay can be set. This requires the light level to be maintained for the set time before changing from on to off, or off to on.	✗	✓
Factory default	-	-	Restores factory default settings.	✓	✓
<b>Switching functions</b>					
Lux on level (switch level on)	9	1 to 9 For a higher resolution a scale of 101-199 is available	Lux level setting to prevent the luminaires being switched on if the ambient light level is sufficient. Note: the Lux Level Off value must always be greater than the Lux Level On value.	✓	✓
Lux on level (switch level off)	9	1 to 9 For a higher resolution a scale of 101-199 is available	Lux level setting to switch the luminaires off the ambient light level goes above the setting.	✓	✓
<b>User modes</b>					
Override On	-	-	If the lights are off, sending the IR command will turn them on immediately and revert to automatic operation using the manual timeout period.	✓	✓
Override Off	-	-	If the lights are on, sending the IR command will turn them off immediately. After the manual timeout period (described above), the sensor will revert to automatic.	✓	✓
Cancel	-	-	Cancels the on or off override, returning the unit to normal operation.	✗	✓

## READBACK FUNCTION (PRE5901 ONLY)

The PRE5901 has the ability to read back the settings stored in a device.

### To read back individual parameters

Navigate to the parameter and press the 'R' (Read) button whilst pointing at the device. The handset will click when the parameter has been read back, the device will flash its LED, and the value will be shown against the parameter in the menu.

To read back all of the parameters in a menu

- Press and hold the 'R' (Read) button for more than 1 second.
- The handset will click every time a parameter is received
- The device will show multiple flashes of its LED
- All of the values will be shown against the parameters in the menu.
- The individual parameters may be edited and then saved as a 'Macro'.

**Notes:** If a parameter(s) has been missed because of a communication error, the missing value(s) is replaced by dashes.

When reading back, the Channel 1 relay (where fitted) will temporarily be switched off, and will return to its normal state 2 seconds after the read back has been completed.

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## PART NUMBERS

	Part number	Description
<b>Detectors</b>	PRE3205-AD	Batten PIR detector AD 1-10V
	PRE3205-DD	Batten PIR detector DD DALI/DSI
	PRE3205-VFC	Batten PIR detector VFC
<b>Accessories</b>	PRE5903	Programming IR handset
	PRE5901	Universal LCD IR handset

## FAULT FINDING

### What if the load does not turn ON?

- Check that the live supply to the circuit is good.
- Increase the lux on level to switch off at a lower brightness.

### What if the load does not turn OFF?

- Increase the lux off level to switch off at a lower brightness.

### Load cycles on and off

- Increase the difference between the lux on level and the lux off level.
- increase the lux time setting.
- Angle the sensor away from the light that it is controlling.

This device should be installed by a qualified electrician in accordance with the latest edition of the IEE Wiring Regulations and any applicable Building Regulations.



FM45789



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