### COPIR IP66, COPIR IP66BK

## Compact Person Detection Switches

Input: 220-240 Vac 50Hz



DANLERS COPIR IP66(BK) is IP66 rated and can be surface mounted onto an external wall. It incorporates a passive infra-red sensor to detect movement of a warm body within the detection zone (diagram 1) and it includes a photocell to monitor the ambient light level.

The detection range is about 10 metres over 120 degrees, the range reduces to about 8m at the extremes to prevent nuisance switching.

Product codes:

COPIR IP66: White enclosure (Grey front facet).

COPÍR IP66 BK: Black enclosure.

#### **INSTALLATION PROCEDURE**

- Please read these notes carefully before commencing work. In case of doubt please consult a qualified electrician.
- 2. The detector should be sited so that it is not shaded from daylight
- 3. The detector should be mounted between 1 and 2.2 metres high, via any of the four pre-drilled mounting holes only.
- 4. It must be mounted with the cable entering from below.
- 5. Make sure the power is isolated from the circuit.
- 6. The detector should be connected as shown in diagram overleaf.L - Live in, N - Neutral in, SL - Switched Line out.
- 7. IMPORTANT Replace terminal cover.
- Once the wiring has been completed and verified, switch on the supply and test the operation.

#### START UP MODE

When the PIR is powered up, the PIR will switch on the lighting load for 1 minute then switch it off. After 2 seconds it will switch on again if it detects movement. With Time set to minimum the load will stay on for 10 seconds so the detection range can be easily assessed. If a manual override-off switch after the PIR (diagrams 5 & 6, note 1) it will not enter the start-up mode each time.

**LOADING:** See overleaf

#### **LUX AND TIME SET UP**

On detecting movement, if the ambient light is dark enough, the COPIR IP66 (BK) will switch the load on. The ambient threshold can be set by the user to between approximately 10 and 1000 lux via the internal LUX adjuster (diagrams 2 and 3). The photocell can be disabled via the internal mode button (see overleaf).

If no more movement is detected within a pre-selected time, then the PIR switch will

turn the load off. This time lag can be set via the TIME adjuster to 10 seconds, 20 seconds, 40 seconds, 80 seconds, 2 minutes 30 seconds, 5 minutes, 10 minutes, 20 minutes or 40 minutes (diagram 4).

For convenience, ensure that the TIME is set to minimum when setting up the LUX level. Afterwards set the TIME to a value suitable for the application.

- When powered up, (after 1 minute stabilisation time) turn lux pot (diagram C) fully clockwise and time pot fully anticlockwise.
- Press the MODE button (diagram 2) for approximately 0.5s. The LED will go green indicating the LUX cell is active. (Or press and hold button for approx. 4 seconds – LED goes RED indicating Lux cell INACTIVE). Repeating these steps will toggle the functionality.
- If lux cell active, vacate area until PIR switch switches the load off (should be after 10 seconds).
- 4. With the LUX as desired on working plane from daylight ONLY (no artificial light), wind the lux pot anticlockwise whilst waving your hand in front of the PIR cell. When the PIR switches the load ON, stop turning the pot. The Lux inhibit level is now set.
- Turn the PIR time to the desired timeout (diagram 4). Whenever a person is detected, the time lag will start again and the load will stay switched on.

#### **TROUBLESHOOTING**

#### The PIR does not detect:

- Check power supply.
- Is there an obstruction in front of the lens?
- Person is too far from the COPIR IP66 switch, see detection diagram.
- Person is moving unusually slowly (perhaps when testing).
- To perform detection test turn the time spindle to minimum setting (10 seconds), cover the lens to stop any detection - load should switch off in 10 seconds unless going through its START UP MODE (see opposite).

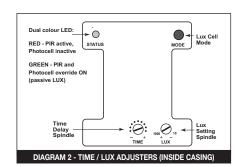
#### The PIR stops working

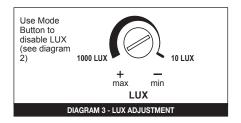
• Ensure the unit is mounted correctly so that no water can enter.

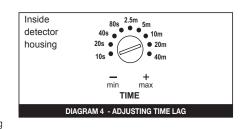
### The PIR false triggers

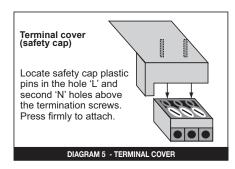
• Detector is exposed to air movement on breezy days.











DANLERS Limited, Vincients Road, CHIPPENHAM, Wiltshire, SN14 6NQ, UK. Telephone: +44 (0)1249 443377 Fax: +44 (0)1249 443388 E-mail: sales@danlers.co.uk

www.danlers.co.uk

Company Registered Number 2570169 VAT Registration Number 543 5491 38



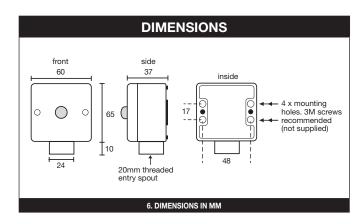
DAT0027 COPIR IP66 30/08/19 (Issue 001)

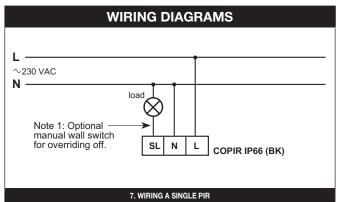
## COPIR IP66, COPIR IP66BK

# Compact Person Detection Switches

Input: 220-240 Vac 50Hz

PLEASE READ THESE INSTRUCTIONS BEFORE INSTALLING THE PRODUCT





INPUT:	
Voltage:	220 - 240Vac
Frequency:	50Hz
LOADING:	
Resistive loads:	10 amps (2300W)
Fluorescent:	10 amps (2300W)
LED Drivers and LED lamps and fittings:	6 amps (1500W) (PF ≥ 0.95)
Electronic and wire wound transformer:	3 amps (750W)
CFL and 2D lamps:	2 amps (500W)
Fans:	1 amp (250W)
Minimum load	2W resistive, suitable for most energy saving lamps, LEDs and emergency fittings.

OPERATING CONDITIONS:		
The temperature difference between the detection target and the background must be at least 4 °C.		
Ambient temperature:	-20 +40 °C	
Storage temperature:	-25 +75 °C	
Max. relative humidity:	0 80%, non-condensing	
CONNECTORS:		
Terminal block Wire size:	0.5mm <sup>2</sup> - 2.5mm <sup>2</sup> solid or stranded	
Wire strip length:	6-7mm	
Tightening torque:	0,4 Nm/4 Kgf.cm	

**TECHNICAL DETAILS** 

MECHANICAL DATA:		
Dimensions:	75mm x 60mm x 37mm	
Weight:	100g (unpacked)	
Degree of protection:	IP66	
Protection class:	Built-in Class 2	
Material (casing)	Flame-retardant polycarbonate/ Polypropylene.	
Finish / Colour	COPIR IP66: Matt /White (RAL 9003) COPIR IP66 BK:	
	Black (RAL 9005)	
CONFORMITY AND STANDARDS:		
EMC emission:	EN60669-2-1:2004 inc. A12:2010	
EMC immunity:	EN60669-2-1:2004 inc. A12:2010	
Safety:	EN60669-2-1:2004 inc. A12:2010	
Environment:	Complies with WEEE and RoHS directives	

#### PRECAUTIONS AND WARRANTY

This product conforms to BS EN 60669-2-1 and BS EN 55015.

Please ensure the most recent edition of the appropriate local wiring regulations are observed and suitable protection is provided e.g. a 10 amp circuit breaker and voltage surge protection.

Please ensure that this device is disconnected from the supply if an insulation test is made.

#### Other DANLERS Product ranges

- Remotely adjusted PIR occupancy switches
- Manually adjusted PIR occupancy switches
- Microwave switches
- Daylight linked dimming controls
- Photocell switches
- Time lag switches
- Outdoor security switches
- Dimmer switches inc. LED dimming
- HVAC controls
- Radio remote (RF) controls

Please call for more information or visit our website.

This product is covered by a warranty which extends to 5 years from the date of manufacture.





DANLERS Limited, Vincients Road, CHIPPENHAM, Wiltshire, SN14 6NQ, UK. Telephone: +44 (0)1249 443377 Fax: +44 (0)1249 443388 E-mail: sales@danlers.co.uk www.danlers.co.uk

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DAT0027 COPIR IP66 30/08/19 (Issue 001)