

## Aritech Crosscheck DR 835

## PIR Microwave verified detector

- **Dual technology for fewer false alarms**
- **K band microwave offers superior detection**
- **Small attractive appearance**
- **Horizontal and vertical steering of coverage pattern**
- **Trouble signalling**
- **PIR, microwave, full alarm and trouble LEDs**
- **Easy mounting and adjustment**
- **20 metres range**

**Fewer false alarms**

The Aritech Crosscheck passive infrared-microwave detector uses two detection technologies for outstanding false alarm immunity. An alarm will only be signalled if both the passive infrared and microwave components of the sensor are activated within a specified time. Since these two technologies are subject to different false alarm causes, the possibility of an alarm being generated by anything other than genuine human movement is almost entirely eliminated.

**Superior detection**

The Crosscheck uses K-band microwave which provides a return doppler frequency 2.4 times greater than that of X-band. This allows far faster and more sophisticated signal processing which translates into superior detection - particularly cross - catch and slow speed detection, areas of weakness in most dual detectors.

**Internal Self-Check**

A supervisory circuit monitors key functions in the detector and triggers a solid state output and lights the separate trouble LED in the presence of any of the following conditions:

- Interruption of microwave operation; e.g. by masking or failure of microwave components
- Excessive temperature
- A fall in the input power below the level at which correct performance is assured.

The signal resulting from these conditions is transmitted by the special solid state trouble output and, if so programmed, simultaneously by the alarm relay.

As an extra security measure, a microwave trouble condition will cause the detector to function as a stand-alone PIR detector. Normal operating condition is automatically restored when the trouble condition is reset.

**LEDs for four separate functions**

The Crosscheck features four LED indicators, each for a different function. One LED, which can be disabled by a switch on the detector base will flash when both technologies alarm. Even if this LED is disabled, it will continue to operate in the test mode. Other LEDs signal PIR and microwave detections individually and the presence of a trouble condition.

**Easy installation and adjustment**

The Crosscheck has a separate base and plug-in detector head for easy installation on flat walls or in corners. A tamper-proof door on the bottom of the detector provides access to range control, steering and programming switches. The programming switches allow the following choices:

- Walk test mode, with PIR, microwave and full alarm LEDs enabled.

- Trouble/default. With this switch "on", a trouble condition will be transmitted by the trouble output and alarm relay simultaneously. When the switch is "off" a trouble condition will be transmitted by the trouble output only and the detector will automatically switch to PIR only operation.

- LED disabled. The full alarm LED can be disabled. However it will still operate in walk test mode.

**Complete Internal Steering Capability**

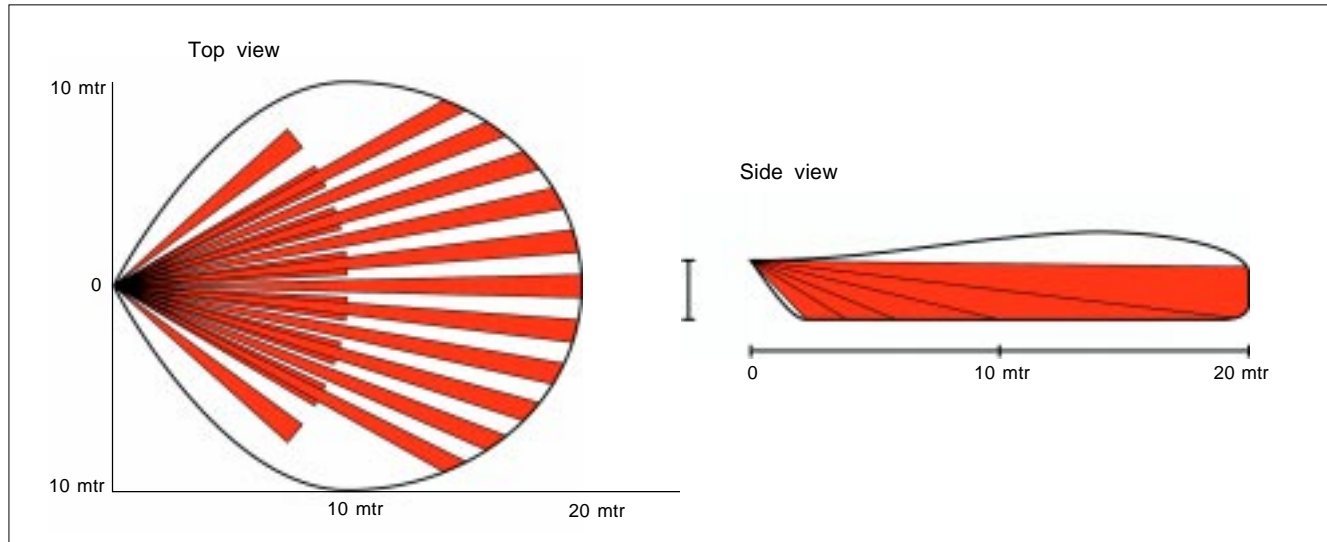
The detector's coverage pattern can be steered horizontally 45° in either direction and vertically -7°. Using the tamper-proof internal steering mechanism, coverage can be directed to where it is needed most, and away from potential environmental hazards.

## How to order

DR 835

Aritech Crosscheck PIR-Microwave verified detector

## Pattern



## Technical data DR 835 PIR - Microwave verified detector

<b>Power</b>	8-16 V DC. Maximum ripple 2 V peak to peak
<b>Current</b>	45 mA
<b>Microwave frequency</b>	24.125 GHz (K-band). Pulsed operation.
<b>Outputs:</b>	Alarm: Change-over contact rated 100 mA at 28 V DC. Tamper: NC contact rated 100 mA at 28 V DC. Electronic trouble output : 10 mA max. In trouble condition conductive to supply ground.
<b>Detection range/pattern</b>	20 metres adjustable down to 6 metres; 90° angle adjustable +/- 45° horizontally, - 7° vertically.
<b>PIR sensitivity</b>	2.0°C at a target velocity of 60 cm per second.
<b>Target velocity range</b>	PIR 15-300 cm per second; Microwave 15-300 cm per second
<b>RFI immunity</b>	Capable of withstanding a 100 watt signal at 3 metres
<b>Environmental limits</b>	Operational: - 18 Cto+50 C; Storage: - 30°Cto+54°C
<b>Dimensions</b>	89 x 140 x 89 mm
<b>Weight</b>	680 g

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