



Arkonia Systems Limited

ARK9130 Series *Smart* Passive Infra-Red Sensors

- ▲ Robust Construction
- ▲ Operating Temperature -30°C to +60°C
- ▲ Relay/logic or RS-485 outputs allow easy interface to any alarm system
- ▲ Low false Alarm Rate
- ▲ Available in 100m, 30m & 15m range versions

The ARK9130 Series of Intelligent Passive Infra-Red Sensors utilise a highly reliable Lithium Tantalate pyroelectric detector, combining very low noise with a high Signal to Noise ratio, and contain all processing and signal validation electronics.



The ARK9130 series of PIR's are intended for use by military, paramilitary, security services and border type applications.

The sensors employ very robust construction techniques and can therefore be confidently deployed in the most adverse environments.

All variants utilise germanium lens to focus the incident IR radiation from a target onto the lithium tantalate pyroelectric detector. This is a differential detector which virtually eliminates false alarms caused by rapid changes in sunlight or rainfall.

All of the required interface circuitry is incorporated into the body of the unit including processing algorithms to validate the PIR detection signal before producing an alarm output.

In its simplest form the alarm output is available as an isolated relay with both N/O and N/C contacts for direct control of an alarm transmitter. Additionally two logic (Open Collector) outputs are available giving the option of providing direction information.

For connection to a system providing a multi-drop bus, variants are available with

Specifications

Detection Material	LithiumTantalate	
Detection Ranges	Standard	Personnel up to 30m Vehicles up to 60m
	Long Range	Personnel up to 100m Vehicles up to 140m
	Short Range wide angle	Personnel up to 15m Vehicles up to 25m
Outputs		
Logic outputs	Open collector – max load 10mA 30Vdc, Active Low	
Relay outputs	Changeover relay NO/NC - max load 1A at 30Vdc	
Supply	5-16V dc at 140 A	
Operating Temperature	-30 C to 60 C	
Storage Temperature	-40 C to 70 C	

Variants	Dimensions	Weight
ARK9137 Long Range (100m)	Max length 173mm Max outer diameter 49.25mm	370g
ARK9138 Standard Range (30m)	Max length 123mm Max outer diameter 25.4mm	160g
ARK9139 Short Range wide angle (15m)	Max length 98mm Max outer diameter 25.4mm	160g

RS-485 Variants

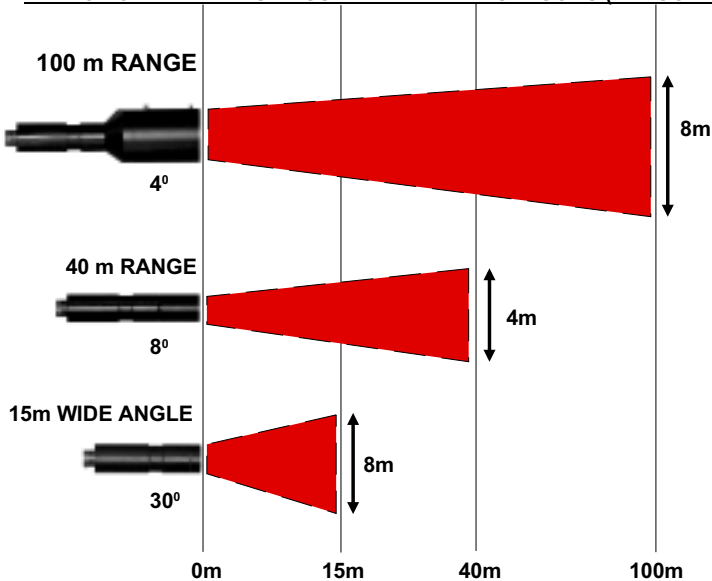
ARK9133 Long Range (100m)

ARK9134 Standard Range (30m)

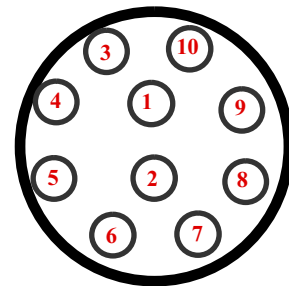
ARK9135 Short Range (15m)

All Fitted with 4 Pin Connector

DETECTION PATTERNS PASSIVE INFRA-RED SENSORS (PERSONNEL)



PINOOTS



- | | |
|----------------|--------------------|
| 1 Relay Common | 6 Shorting Link A |
| 2 Relay N/O | 7 Shorting Link B |
| 3 Relay N/C | 8 Logic Output L/R |
| 4 +V | 9 Logic Output R/L |
| 5 0V | 10 Not Used |



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