

**LIFESAVER SMOKE ALARM  
MODEL RK10A/9 ISOLATION RELAY**

**SPECIFICATION:**

Operating Voltage	5V – 10V DC
Secondary Contacts	Normally Open Normally Closed (change-over contacts)
Secondary Contact Rating	240V AC 50Hz @ 10Amps 30V DC @ 10Amps
Contact Switching Time Delay (one smoke alarm connected)	8 seconds once activated
Minimum cable size	1mm <sup>2</sup> Neutral 1mm <sup>2</sup> Switch line
Maximum number of interconnected smoke alarms to a single RK10A/9 unit	24
Operating Temperature	0° - 50°C
Fire Indicator Panel INPUT Voltage. 4 <sup>th</sup> Terminal Operation (Early Warning System)	24V DC

**OPERATION.**

The RK10A/9 Smoke Alarm Isolation Relay is a device designed to provide compatible 240VAC Smoke Alarms with a set of Normally Closed (NC) and Normally Open (NO) change over contacts. This permits the Smoke Alarm to trigger auxiliary devices such as strobe lights, sirens, bells, burglar and fire alarm panels, activate emergency lights, shutting down air conditioners or releasing magnetic door holders. (See Figure 1)

The RK10A/9 will operate in the absence of mains power and only operates when the smoke alarm is in alarm state.

The RK10A/9 Isolation relay has an additional feature of receiving a 24Vdc power signal from a fire panel or external device, activate the 24Vdc relay and close the contacts between 9V and switch-line (S) to trigger smoke alarm with fourth terminal. This feature allows the smoke alarm to be triggered by the fire panel to initiate an early warning alarm. (See Figure 2).

**COMPATIBLE SMOKE ALARMS**

Note that when used with an output from the smoke alarm this device is intended and designed only for use with the following smoke alarms and devices;

**LIFESAVER** LIF5000, LIF5800, LIF5800RL, LIF5800RF  
LIFHA240, LIFSL240

**TRADEFORCE** TRFSD240I, TRFSD240PE, TRFSD240PERL

**WARNING:** Use with other smoke alarms may damage this device and the smoke alarm(s) and could create a definite shock risk and would not be covered by any warranty.

The Isolation Relay RK10A/9 must be installed by a Licensed Electrician.

Wiring from the Smoke Alarm N and S terminals must be correctly connected to the RK10A/9 N and S terminals. Incorrect wiring will short and damage the isolation relay and the Smoke Alarm and will void warranty.

The Isolation Relay RK10A/9 is triggered once the Smoke Alarm activates and sends a signal down the switch line.

**Note** there will be a 8 second delay before the relay operates the RK10A/9's Normally Open and Normally Closed contacts. This is to help prevent any unnecessary false alarms from the smoke alarm.

In the above case the changeover contacts of the relay, connected to the output terminals may be used to make or break an external E.L.V. or L.V. circuit operating at up to 240Vac 10A or 30Vdc 10A.

**WARNING:** UNDER NO CIRCUMSTANCES MUST AN INSULATION RESISTANCE TEST BE CARRIED OUT BETWEEN THE INPUT CONDUCTORS OF THIS RK10A/9. SUCH A TEST COULD CAUSE IRREPARABLE DAMAGE TO THE INTERNAL CIRCUITRY OF THE DEVICE AND MAKE IT INOPERATIVE AND FURTHER, THE WARRANTY WOULD BE VOID UNDER THIS CONDITION.

**INSTALLATION.**

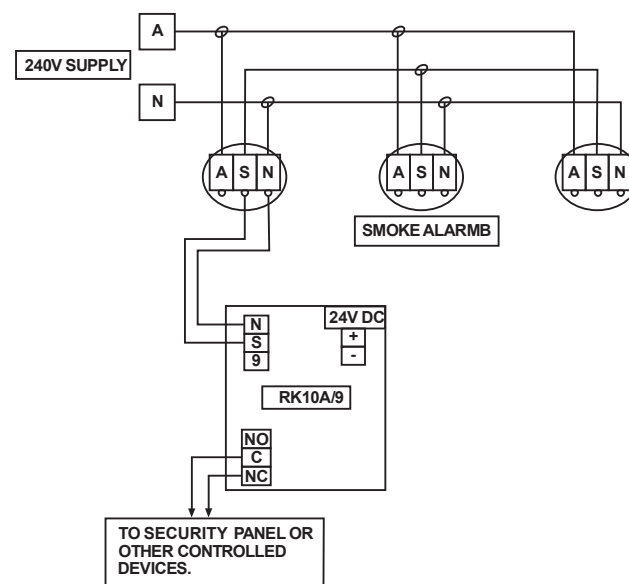
General:

The RK10A/9 requires no earthing conductor as it is double insulated. It must be suitably fixed in position and protected from mechanical damage. If the output terminals are connected to low voltage (240V) circuits, the associated wiring must be installed in accordance with the relevant requirements of the SAA Wiring Rules, AS3000.

**Warning:** A combination of the N.O. and N.C. contacts is not permissible and will not operate.

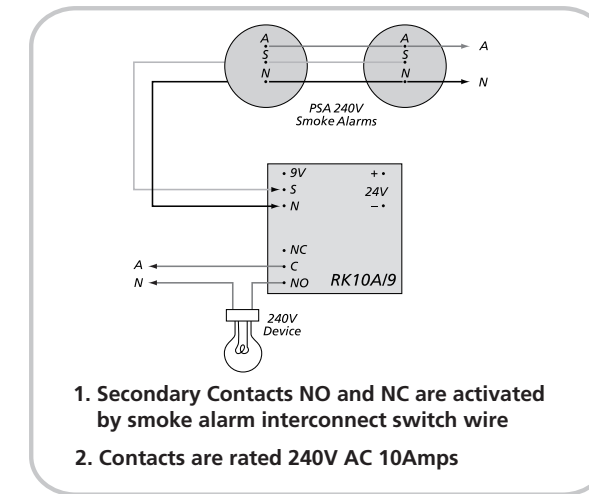
**WIRING DIAGRAM**

**Figure 1: Connecting to Auxiliary Devices**



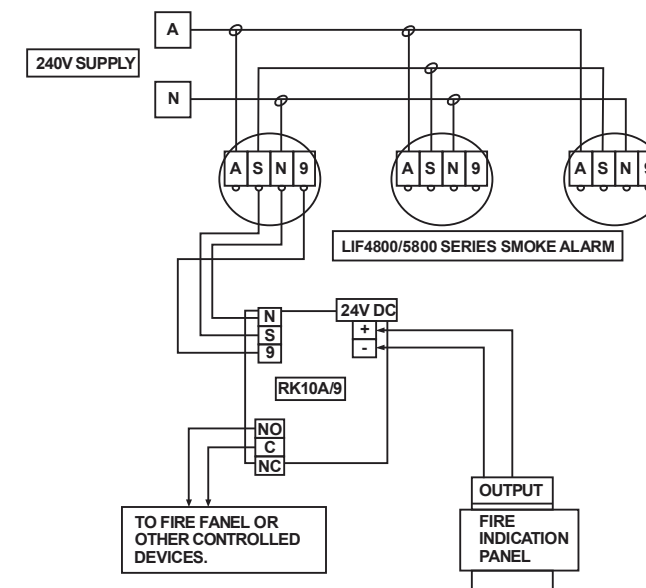
By installing the RK10A/9 in this manner it will allow you to operate such devices such as sirens, strobes, bells, lights, air conditioners or any devices which do not exceed 240V AC @ 10 Amps.

**Figure 1a:**



1. Secondary Contacts NO and NC are activated by smoke alarm interconnect switch wire
2. Contacts are rated 240V AC 10Amps

**Figure 2: Connections using the 4<sup>th</sup> Terminal and using 24Vdc input**



Connecting the 24V DC input from the Fire Indicator Panel permits the smoke alarm to be activated externally using the 4<sup>th</sup> terminal. The Smoke Alarm can be used as part of an early warning system. The activation of the Fire Indicator Panel will send an alarm signal via its auxiliary output to the RK10A/9. The 24 Volts DC signal will be relayed to the RK10A/9 relay which will activate the 24 volt dc relay and close the contacts between 9 volt and switch-line connections. This will activate all smoke alarms in all apartments, thus acting as an early warning to all occupants.

**TECHNICAL NOTE**

The wiring connecting the module with the external device is not supervised. Be sure to test the operation of all the devices controlling the module or controlled by the module. Devices controlled by the module can be tested by pushing the test button on the alarms and verifying that the controlled device responds in the desired manner. Devices controlling the module can be tested by activating the device and verifying that all of the interconnected alarms enter alarm.

**WARRANTY.**

PSA Products Pty Ltd (ABN: 99 076 468 703) of 17 Millicent Street, Burwood 3125 Victoria, Australia warrants this product for a period of 12 months from the date of purchase, as reflected on the Authorised Reseller's or Distributor's invoice / receipt provided to you. PSA Products Pty Ltd will repair or replace the product (at the option of PSA Products Pty Ltd (excluding any labour costs relating to removal or re-installation of product, and transport costs).

This warranty shall not apply to the product if it has been damaged, modified, abused or altered after the date of purchase, or if it fails to operate due to improper maintenance. To the extent permitted by law, the liability of PSA Products Pty Ltd arising from the sale or under the terms of this limited warranty shall not in any case exceed the cost of replacement and subject to this clause. In no case shall PSA Products Pty Ltd be liable for consequential loss or damages resulting from the failure of the product or breach of this, or: Any other warranty, express or implied, loss or damage caused by failure to abide by the instructions supplied in the leaflets.

To the extent permitted by law, PSA Products Pty Ltd., makes no warranty, expressed or implied, written or oral, including that of merchantability or fitness for any particular purpose, with respect to the consumer replaceable battery if any. This warranty is provided in addition to other rights and remedies you have under law:

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure. What constitutes a major failure is set out in the Australian Consumer Law.

To make a claim under warranty, take the product (with a proof of purchase) to the store where you purchased the product or contact PSA Products Pty Ltd.

Phone (03) 9888 9889. or Email: enquiry@psaproducts.com.au with details, proof of purchase or expense claim in writing.

Another Quality Product by:

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