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**PROFESSIONAL PLUS**  
**12 volt Optical Smoke Detector**  
**Model type:- S12VS-4**

**DESCRIPTION**

The **PROFESSIONAL PLUS S12VS-4** is an optical smoke detector designed for use with a 12 volt alarm system. The detector is equipped with a relay, having potential free contacts. The detector can be configured as either latching or auto-reset. A test button is provided to functionally test the relay and outputs of the detector. A bi-coloured LED provides a green pulse every 30 seconds to indicate that the detector is working and changes to red when in alarm.

**INSTALLATION**

To separate the detector from its base, push together and twist the detector anti-clockwise. The detector is supplied configured for latching operation. To change to auto-reset, remove the small push on link underneath the detector. The push on link may be "parked" by pushing it back onto just one of the contact pins. Fix the base to the ceiling and connect the supply wires to the terminals marked + and - 12v. The alarm circuit can be connected to the relay connections. These are as follows:-

- C** Common
- NO** Normally Open
- NC** Normally Closed

The above are shown in the **NON ALARM** position.

For most alarm panels using a normally closed circuit, only the C and NC contacts are required. A spare terminal is provided in the base for the installer's own use, if required. When the wiring is complete, re-insert the detector into the base, aligning the LED with the printed triangle inside the base, push and twist clockwise until the detector clicks into position.

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**TESTING**

For testing the detector for response to smoke, A2Z recommends the use of an Aerosol Discharge Tube. This is available from A2Z (UK) Ltd. (Part No. FPS-03)

When power is applied to the detector, the LED should pulse green approximately once every 30 seconds. To test the relay output of the detector, push the test button. The LED will change to red and the relay operate. If the detector is configured as auto-reset, releasing the test button will allow the detector to reset. If the detector is configured as latching, then the 12 volt supply to the detector must be interrupted for the detector to reset.

**SITING**

Basically the detector should be placed in the centre of the area to be protected, however it should not be placed closer than 0.5 metre to a light fitting or closer than 30 cms to a wall. Optical smoke detectors should not be fitted in areas where condensation or steam will occur (kitchens, bathrooms, unheated rooms etc.) as this can cause unwanted alarms. For these areas a rate of rise temperature detector should be used (A2Z model S12VH-1).

**SPECIFICATION**

Operating temperature: +10 °C to +70 °C

Operating voltage: 10 to 15 volts DC

Quiescent current:

non alarm, Approximately 1 mA

in alarm, Approximately 50 mA

Relay contact rating: 1 Amp at 28 volts max.

Body and base material: Polycarbonate

Base contacts: Passivated stainless steel

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