

## Application and Specification

### Multi criteria smoke detectors

PVE use analogue sensors of the multi criteria type to BS/EN 54 Part 5 & 7

Our Optical/heat sensors combine two individual sensing elements to provide excellent cover for both types of fire( slow smouldering and fast free burning)

**Optical sensing:** Is carried out by means of an Infer – red LED transmitting a pulse of light across an obtuse angled chamber.

**Heat sensing :** Is carried out by two thermistors, which sample the surrounding environmental temperature.

Our sensors possess a minimum of 6 possible selectable sensing states of operation and are designed specifically to operate in conjunction with the PVE analogue addressable fire detection panel. PVE sensors are fully compatible with our detection panel providing inter-changeability between sensor heads , without the requirement for switch settings.

A loop continuity strip shall be incorporated into each sensor base. Removal of a sensor from its base will indicate a fault condition on our panel but should have no effect on the loop circuit integrity.

PVE sensors are White in colour and manufactured from ABS plastic. All electronics and associated sensing elements are housed within this unit, these components being hermetically sealed to prevent their operation from being impaired by dirt , dust , or humidity.

We can adjust the sensitivity of all sensors from the control panel this either manually or via an automatic system clock . the sensors cannot be altered locally to specific sensors. The ranges of sensitivity being from state 0 (high level) to state 15 ( total disablement)

Our sensors are supplied with a removable plastic dust cover for protection during site construction.

## Analogue addressable fire detection & alarm system

Working in conjunction with 'Gent ' PVE have developed a system that is analogue in operation, with each sensor device providing signal levels relative to the operating environment. These analogue samples are transmitted to the control panel in a digital format to reduce possible corruption.

The power of the systems processing can be demonstrated as each outstation has its background environmental conditions monitored every 80 seconds, by our control panel to create a table of analogue channel for event analysis. For sensors in a threshold condition 256 data readings will be taken, with fast scanning employed to locate threshold outstations within a period of 0.5 seconds.

To maintain system performance and compatibility all equipment is certified by British standards under ISO 9002

Our system provides fire, fault disablement and supervisory monitoring facilities as required by EN 54 Pt 2. Short or open circuit wiring fault isolation is incorporated within every device to provide the highest level of circuit integrity in the system.

A PVE panel is multi tasking in operation with each loop utilising microcomputer technology to communicate with the main control panel controller processor. Our control panel is modular in construction its format allowing for future additions up to a maximum of 4 detection and alarm loops.

The control panel has the facility for the installation of a separate network communications card to provide means of connection for up to a maximum of 31 control panels in the form of a secure network.

**For More Information, please contact: PVE Ltd.**

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