

Intellia I.S. Ionisation Smoke Detector 55000-640APO

Insturction Sheet
R10088GB0



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Contents

1	Intellia I.S. Ionisation Smoke Detector 55000-640 APO	4
1.1	Intellia Intrinsically Safe Fire Detectors	4
1.2	Safety Note	4
1.3	Intellia I.S. Base 45681-215APO (55000-215 APO)	5
1.4	Product Codes	5
1.5	Schematic Diagram & Wiring Connections	6

1 **Intellia I.S. Ionisation Smoke Detector 55000-640 APO**

The sensing part of the detector consists of two chambers – an open, outer chamber and a reference chamber within.

Mounted in the reference chamber is a low-activity radioactive foil of Americium 241 which enables current to flow across the inner and outer chambers when the detector is powered up.

As smoke enters the detector, it causes a reduction of the current flow in the outer chamber and hence an increase in the voltage measured at the junction between the two chambers. This analogue voltage signal is converted to a digital signal by the electronic circuitry and transmitted to the control panel on interrogation. The micro-processor in the control equipment then compares the signal with stored data and initiates a pre-alarm or fire alarm as smoke density increases. When a fire condition exists, the panel instructs the detector to switch on its indicator LED.

1.1 **Intellia Intrinsically Safe Fire Detectors**

The Intellia I.S. range comprises addressable ionisation and optical smoke detectors, a temperature detector, a detector base and a compatible manual call point. There is also a choice of two translators which ensure integrity of communication between detectors and control equipment within the constraints of an intrinsically safe system.

The Intellia range intrinsically safe fire detectors and call points have been approved by BASEEFA. The approvals are to BS EN 60079-0:2004, BS EN 50284:1999, BS EN 50020:2002 and BS EN 60079-26:2004. All types are certified to EEx ia IIC T5 at ambient temperatures up to 40 °C, or T4 at ambient temperatures up to 60 °C.

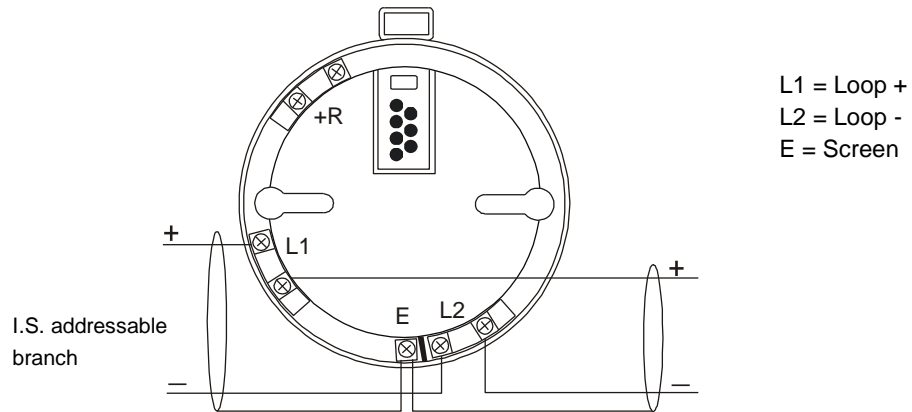
1.2 **Safety Note**

The detectors, independently tested by the National Radiological Protection Board (NRPB), conform to all the requirements specified in the 'Recommendations for ionisation smoke detectors in implementation of radiation standards' published by the Nuclear Energy Agency of the Organisation for Economic Co-operation and Development (OECD) 1977.

At the end of their recommended working life of ten years, ionisation smoke detectors should be returned to Schneider Electric for safe disposal or disposed of in an otherwise locally approved and environmentally safe manner.

1.3 Intellia I.S. Base 45681-215APO (55000-215 APO)

The base for the intrinsically safe range is not identical with that for the standard range. This ensures that standard detectors cannot inadvertently be fitted to an intrinsically safe system.



1.4 Product Codes

Product Description	Product code
Intellia I.S. Optical Smoke Detector 55000-640APO	FFS0672 5227
Intellia I.S. Base 45681-215APO	FFS0672 5207

1.5 Schematic Diagram & Wiring Connections

