

Analogue Ionisation Sensor

AIE-E



Features

- ▶ Twin fire LED's allow 360° viewing
- ▶ Locking mechanism (sensor to base)
- ▶ Shielded from external noise
- ▶ Variable sensitivity
- ▶ Electronically Addressed
- ▶ Non-pulsing version available (AIE-E(NP))
- ▶ Approved LPCB & VdS

Description

Model AIE-E is an Ionisation Smoke Sensor, which is fully compatible with Hochiki's ESP Analogue Addressable Protocol.

A single radioactive source within the AIE-E ionises two chambers, which allows a small DC current to flow between the electrodes in each chamber. Smoke can freely enter the outer chamber whilst the inner chamber is virtually sealed. Smoke entering the outer chamber causes a reduction in the DC current, the imbalance between the two currents is proportional to smoke density, which is filtered and transmitted as the analogue value.

The threshold on the AIE-E can be adjusted to compensate for contamination by utilising the built in test facility.

Specification		
Ordering Code	AIE-E / AIE-E(NP)	
Operating Voltage	17 - 41Vd.c.	
Low Power Mode (typ)	120µA	
Quiescent Current (typ)	310µA	
Alarm Current (controlled by CIE)	19mA	
Transmission Method	Digital Communications Using ESP	
Radioactive Source	Am241 1µCi	
Operating Temperature Range	-10°C to + 50°C	
Storage Temperature Range	-30°C to + 60°C	
Maximum Humidity	95%RH - Non Condensing (at 40°C)	
Ingress Protection	IP42	
Colour / Case Material	Ivory White / ABS	
Weight (g)	115	
Diameter (mm) / Height with base (mm)	100 / 46	
Compatible Bases	YBN-R/3, CHQ-BS, YBO-R/SCI	
Base Fixing Centres (mm)	48 ~ 74	
Approvals	AIE-E	LPCB EN54: Part 7
	AIE-E(NP)	VdS EN54: Part 7 (G299075)