

# SPECIFICATION

**Document Title** AIE-E Analogue Ionisation Sensor

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# Analogue Ionisation Sensor

## Model AIE-E

### Features

- ▶ Low standby current
- ▶ Twin fire LED's allow 360° viewing
- ▶ Shielded from external noise
- ▶ Electronics free mounting base
- ▶ Variable sensitivity
- ▶ Electronically Addressed
- ▶ Approved to EN54 Part 7



### Description

Model AIE-E is an Ionisation 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
Operating Voltage	17-41V
Low Power Mode	120µA
Quiescent Current	310µ A
Transmission Method	Digital Communications Using ESP
Radioactive Source	Am241 1µCi
Operating Temp. Range	-10°C to + 50°C
Storage Temp. Range	-30°C to + 60°C
Maximum Humidity	95%RH - Non Condensing (at 40°C)
Case Material	ABS
Diameter	100mm
Height with Base	46mm
Compatible Bases	YBN-R/3, CHQ-BS
Base Fixing Centres	48mm through to 74mm
Weight (include. base)	115g (165g)