



# ENGINEERING SAFETY CONSULTANTS

*The Global Provider of Functional Safety Expertise and Technical Consultancy*

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## Certificate of Conformity to IEC 61508 Safety Integrity Level (SIL) 2

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### **Functional Safety of Safety-Related Programmable Electronic Systems**

The **Hochiki Europe (UK) Ltd, Intelligent Analogue Addressable heat detector** for use in fire detection and alarm systems has been assessed and is considered capable for use in a low demand Safety Function up to SIL 2, with regard to random failure rates and architectural constraints.

The assessment was based on the assumptions, data provided, and recommendations given in:

- **ESC Ltd Report: C003\_SV001 rev. 5;**
- **Renewal letter from Hochiki Europe (UK) Ltd, signed by Richard Anderson, Approvals & Certification Engineer, dated: 17/08/2020.**

The system was assessed against the following failure mode:

- Failure to communicate fire condition to the host system.

Subject to the following requirements detailed in report C003\_SV001 rev. 5:

- Host system will be configured to detect and alarm on loss of communications to the detector (loss of response to polls).

The following product variants are also covered under this certificate, with the product labels being the only difference:

- ATJ-E(WHT);
- ATJ-EN;
- ATJ-EN(WHT);
- ATJ -EN/SIL;
- ATJ -EN(WHT)/SIL;
- ATJ -EN(WHT)/RWY.

The assessment was carried out to determine compliance with IEC 61508 with regards to:

- Random Hardware Failures (Predicted PFD <2.0E-04 (assuming a 1-year proof test and average repair time of 168 hrs));
- Architectural Constraint (Type B, SFF >90%).

**IMPORTANT:** It should be noted that this assessment does not include confirmation of the response time of the device. For response times (along with any relevant assumptions) reference should be made to the Safety Manual of each device and the total SIF response time **MUST** be compared against the process safety time for the specific application.

Chairman: Kenneth G L Simpson  
Member of the IEC 61508 committee  
Assessment Date: February 2014

Renewal Date: October 2020, valid to October 2022  
Certificate: C003\_CT002 rev. 7

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