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## Certificate of Conformity to IEC 61508 Safety Integrity Level (SIL) 2 in Terms of Random Hardware Performance Requirements

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

The **Hochiki Europe (UK) Ltd Intelligent Analogue Addressable multi-criteria detector for use in fire detection and alarm systems** has been assessed and is considered capable for use in a SIL 2 low demand Safety Function with regard to random failure rates. The assessment was based on the assumptions, data provided and recommendations given in:

#### **ESC Ltd report C003\_SV001\_(3.0).**

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\_(3.0):

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

The system assessed includes the following variants:

- ACC-E(WHT);
- ACC-EN;
- ACC-EN(WHT).

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

- Random Hardware Failures (Predicted PFD  $<3.0E-04$  (assuming a 1 year proof test and average repair time of 168 hrs);
- Architectural Constraints (Type B, SFF  $>90\%$ ).

Managing Director: Kenneth G L Simpson  
Member of the IEC61508 committee  
Assessment Date: February 2014  
Renewal Date: September 2016, valid to September 2018  
Certificate: C003\_CT003\_(4.0)



Reg:12Q12086

**ENGINEERING SAFETY CONSULTANTS LTD**  
Tuition House  
27-37 St George's Road Wimbledon London SW19 4EU UK  
Telephone/Fax: +44 (0)20 8542 2807  
E-Mail: [info@esc.uk.net](mailto:info@esc.uk.net) Web: [www.esc.uk.net](http://www.esc.uk.net)  
Registered in England and Wales: 7006868  
Registered Office: 27-37 St George's Road Wimbledon London SW19 4EU