



## 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 in Terms of Random Hardware Performance Requirements

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

The **Hochiki Europe (UK) Ltd. CHQ-DSC2(SCI), CHQ-DSC2/DIN(SCI)** (function is to communicate to the ESP Control Panel and receive commands to switch on sounders, and also monitors for an open circuit which is fed back to indicate a detected line fault) have been assessed and are 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 E029\_SV003 rev.3.**

The product was assessed against the following failure mode:

- Failure to drive sounder output when demanded.

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

- Random Hardware Failures with Predicted PFD  $<1.1 \text{ E-3}$  (assuming a 1 year proof test and average repair time of 168 hrs);
- Architectural Constraint (Type A, SFF  $>60\%$ ,  $<90\%$ ).

Managing Director: Kenneth G L Simpson

Member of the IEC61508 committee

Assessment Date: May 2015

Renewal Date: October 2016, valid to October 2018

Certificate: E029\_CT003 rev. 4



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