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## Certificate of Conformity to IEC 61508 Safety Integrity Level (SIL) 1/2 in Terms of Random Hardware Performance Requirements

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

The **Hochiki Europe (UK) Ltd. CCP-E-IS and CCP-W-IS Call Points 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 1/2 with regard to random failure rates. The assessment was based on the assumptions, data provided and recommendations given in:

#### **ESC Ltd report D004\_SV005 rev.3.**

The system was assessed against the following failure mode:

- Failure to detect call point activation and annunciate alarm condition.

Subject to the following requirements for complying with **SIL 2**:

- Manual test considered a diagnostic function;
- Manual function tests are carried out frequently (i.e. weekly) and suitably documented, reviewed and audited.

The assessment was carried out to determine compliance with IEC 61508 with regards to **SIL 1**:

- Random Hardware Failures (Predicted PFD <5.0E-04 (assuming a 1 year proof test and average repair time of 168 hrs.) ;
- Architectural Constraints (Type A, SFF <60%).

The assessment was carried out to determine compliance with IEC 61508 with regards to **SIL 2**, (subject to acceptance that the manual test can be considered as part of the diagnostic function in terms of SFF):

- Random Hardware Failures (Predicted PFD <2.0E-04 (assuming a 1 year proof test and average repair time of 168 hrs.) ;
- Architectural Constraints (Type A, SFF >60%).

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Member of the IEC61508 committee

Assessment Date: May 2015

Renewal Date: September 2016, valid to September 2018

Certificate: D004\_CT005 rev.3



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