

ENGINEERING SAFETY CONSULTANTS

The Global Provider of Functional Safety Expertise and Technical Consultancy

Certificate of Conformity to IEC 61508 Safety Integrity Level (SIL) 1/2

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 or SIL 2, with regard to random failure rates and architectural constraints.

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

- CCP-E-IS/SIL;
- CCP-W-IS/SIL.

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

- ESC Ltd Report: D004_SV005 rev. 4;
- 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 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 Constraint (Type A, SFF <60%).

The assessment was carried out to determine compliance with IEC 61508 with regards to SIL 2:

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

Khuji

Chairman: Kenneth G L Simpson Member of the IEC 61508 committee Assessment Date: May 2015 Renewal Date: October 2020, valid to October 2022 Certificate: D004_CT005 rev. 6

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