



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

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 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



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 Web: www.esc.uk.net

Registered in England and Wales: 7006868

Registered Office: 27-37 St George's Road Wimbledon London SW19 4EU