



ENGINEERING SAFETY CONSULTANTS

The Global Provider of Functional Safety Expertise and Technical Consultancy

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

Functional Safety of Safety-Related Programmable Electronic Systems

The OEM, 'Fogtec Discovery' range of fire detectors has been assessed and is considered capable for use in a low demand Safety Function up to SIL 2, with regards to random hardware failure rates, architectural constraints and systematic capability.

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

- Technis Report: T594 Issue 2.0;
- ESC Ltd Report: H013_PU001 rev. 2;
- Renewal Letter from Apollo Fire Detection Ltd, signed by Chris Ellis, Head of Compliance, dated 22nd September 2020.

This certificate is applicable to the following devices:

- 58000-400FGS (10000861);
- 58000-600FGS (10000841);
- 58000-700FGS (10000862).

The certified devices can only achieve SIL 2 if used in conjunction with a fire alarm control panel that supports all elements of the OEM protocol including the full fault diagnostic.

Products covered by this certification should have the Technis and ESC reports referred to in the Safety Manual.

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

- Probability of Failure on Demand (PFD) with proof test interval of one year and a repair time of a detected failure of 24 hours against IEC 61508 and IEC 61511;
- Architectural Constraints (SFF) for Type B equipment against IEC 61508;
- Systematic Capability against IEC 61511, prior use, suitable up to SIL 2.

Products Assessed	PFD	SFF
58000-400FGS (10000861) Heat Detector 3251 + SIL	5.6E-06	90% to < 99%
58000-600FGS (10000841) Optical Smoke Detector + SIL	6.7E-06	90% to < 99%
58000-700FGS (10000862) Smoke / Heat Detector 3252 + SIL	7.0E-06	90% to < 99%

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.

Chairman: Kenneth G L Simpson
Member of the IEC 61508 committee

Assessment Date: December 2018

Renewal Date: October 2020, valid to October 2022

Certificate: H013_CT001 rev. 2

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UKAS-accredited ISO9001 certification
body

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