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

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### **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 3.0;**
- **Engineering Safety Consultants Ltd (ESC) Report: H013\_PU001 rev. 3;**
- **Renewal Letter from Apollo Fire Detection Ltd, signed by Chris Ellis, Head of Compliance, dated 22<sup>nd</sup> 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 diagnostics.

The Safety Manual for each product covered by this certificate should provide a reference to the ESC assessment report: H013\_PU001 rev. 3.

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	3.2E-05	90% to < 99%
58000-600FGS (10000841) Optical Smoke Detector + SIL	4.3E-05	90% to < 99%
58000-700FGS (10000862) Smoke / Heat Detector 3252 + SIL	4.5E-05	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.

Managing Director: Simon Burwood  
Member of the IEC 61511 Maintenance Committee (MT61511)  
Assessment Date: December 2018  
Renewal Date: October 2020, valid to October 2022  
Certificate: H013\_CT001 rev. 3

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