



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

Manufacturer: Tyco Fire & Security GmbH (TFSG)
Victor Von Bruns-Strasse 21
8212 Neuhausen am Rheinfall
Schaffhausen
Switzerland

The **TFSG, T2000 MX & ZX Fire Panel** has been assessed and is considered capable for use in a low demand Safety Function up to SIL 2 with regard to systematic (assessed under the Prior Use route), random failure rate and architectural constraint.

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

- **Technis Report No. T432, Issue 4.0;**
- **ESC Ltd report A114_TR001_(4.0);**
- **Renewal Letter from Tyco Fire & Security GmbH, signed by Deepika Sahni, Regulatory Engineer, Dated 2nd May 2019.**

The product was assessed against the following failure modes:

- Failure to respond (executive output);
- Failure to respond (audible output).

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

- Random Hardware Failure with Predicted PFD <2.0E-03 (assuming a 1 year proof test);
- Architectural Constraint (Type B, SFF >90%, <99%);
- Systematic Capability against IEC 61511 (2004 Edition) Prior Use.

Managing Director: Kenneth G L Simpson
Member of the IEC 61508 committee
Assessment Date: October 2011
Renewal Date: May 2019, valid to May 2021
Certificate: A114_CT001 rev. 2

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