



## ENGINEERING SAFETY CONSULTANTS

*The Global Provider of Functional Safety Expertise and Technical Consultancy*

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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***

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

The **TFSG, 850Ex Weatherproof Call Point** has been assessed and is considered capable for use in a low demand Safety Function up to SIL 2 capability with regards to systematic (assessed under the Prior Use route), random hardware failures and architectural constraints.

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

- **Engineering Safety Consultants Ltd Report: J195\_SA001 rev. 1;**
- **Renewal Letter from Tyco Fire & Security GmbH, signed by Deepika Sahni, Principal Regulatory Engineer, Dated 22<sup>nd</sup> June 2022.**

The assessment was carried out to determine compliance with IEC 61508 (2010 Edition) with regards to:

- Random Hardware Failure (Predicted PFD)  $<3.0E-03$  (assuming a 1-year proof test and average repair time of 168 hours);
- Random Hardware Failure with Achieved  $\lambda_{DD} = 2.1E-07$ ;
- Random Hardware Failure with Achieved  $\lambda_{DU} = 1.9E-08$ ;
- Architectural Constraint (Type B, SFF  $>90\%$ ,  $<99\%$ ), HFT = 0;
- Systematic SIL 2 capability against IEC 61511 Prior Use.

**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 IEC 61508 (MT61808-1-2) & IEC 61511 (MT61511) Maintenance Committees  
Assessment Date: February 2020  
Renewal Date: June 2022, valid to June 2024  
Certificate: J195\_CT001 rev. 2

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