



# 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 **Midmac Contracting Company WLL, Fire Detection and Alarm System** has been assessed and is considered capable for use in a low demand Safety Function up to SIL 2, with respect to random hardware failures, architectural constraints and systematic capability.

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

- Random Hardware Failure (Predicted failure rate per year 3.0E-03);
- Architectural Constraint (Type B, 90%, <99% with a HFT = 0), excluding the following modules which require a redundant configuration (i.e. HFT = 1):
  - o BSJ-310;
  - o BSE-320, and;
  - o BF-xxx (Call Point).
- Systematic Capability of SC 2.

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

- **ESC Ltd Report: G062\_GI002 rev. 1.**

Based upon the ESC Report G062\_GI002 rev. 1, it can be considered that the Fire Detection and Alarm System is SIL 2 capable.

**Assessment Date: March 2019**

**Expiry Date: March 2021**

**Certificate: G062\_CT002 rev. 1**

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