



ENGINEERING SAFETY CONSULTANTS

The Global Provider of Functional Safety Expertise and Technical Consultancy

Certificate of Conformity to IEC 61508 Safety Integrity Level (SIL) 2 in Terms of Random Hardware Performance Requirements

Functional Safety of Safety-Related Programmable Electronic Systems

The **Seagull Safety Ltd. SS76-TX CAT Transmitter** has been assessed and is considered capable for use in a low demand Safety Function up to SIL 2 with regard to random failure rate and architectural constraint. The assessment was based on the assumptions, data provided and recommendations given in:

- **Seagull Safety Ltd, SS76-TX CAT Transmitter, Hardware Safety Manual, SS55100-992, Issue 1.2, 14-Oct-15;**
- **Renewal letter from Seagull Safety Ltd, signed by Andrew Dove dated 29th May 2017.**

The SS76-TX CAT Transmitter consists of the following modules:

- Transmitter Board – Part no. SS55100-301 Issue 3;
- Relay Board – Part no. SS55100-401 Issue 2.

The assessment was carried out against the following failure mode:

- Inability to read the pellistors impedance and give the correct 4-20mA analogue output signal within the specified tolerance.

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

- Random Hardware Failure with Predicted PFD <4.0 E-4 (assuming a 6-month proof test and a Mean Time to Repair of 8 hours);
- Architectural Constraint (Type B, SFF >90%, <99%).

Managing Director: Kenneth G L Simpson
Member of the IEC61508 committee
Original Assessment Date: October 2015
Renewal Date: June 2017, valid to October 2019
Certificate: C138_CT001 rev.2



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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