



## 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***

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 hardware failure rate and architectural constraints.

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, Date: 14th October 2015;**
- **Renewal letter from Seagull Safety Ltd, signed by Andrew Dove, Dated: 4<sup>th</sup> October 2019.**

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  $<4.0E-04$  (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  
Assessment Date: October 2015  
Renewal Date: October 2019, valid to October 2021  
Certificate: C138\_CT001 rev. 4

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