



## ENGINEERING SAFETY CONSULTANTS

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

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# Safety Integrity Level Capability Certificate

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### ***Functional Safety of Safety-Related Programmable Electronic Systems***

The **TAIT Towers, Navigator High Performance Automation System** has been assessed (E057\_FSA\_62061 Rev. 4) and is considered suitable for use in SIL 3 Safety Functions based on the design and requirements stated in the Functional Design Specification (Issue 1 Feb 2017) and the assumptions, data provided, and conditions given in the subsequent documents:

- Functional Safety Plan (Issue 1 Feb 2017);
- Safety Requirement Specification (Issue 1 Feb 2017);
- Modification Procedure (Issue 1 Feb 2017);
- Validation Plan and Checklist (Issue 1 Feb 2017);
- Installation, Use and Maintenance of Systems (Issue 1 Feb 2017);
- Testing Plan and Spreadsheet (Issue 1 Feb 2017);
- Software Requirement Specification and Design Document (Issue 1 Feb 2017);
- Update Parts Document - List of Parts (April 2017);
- Applied Measurement Load Cell Prior Use Assessment (E057\_PU001\_rev.1 Feb 2017);
- Generic Winch System SIL Verification (E057\_SV001\_rev.4 May 2018);
- Competency Register (Issue 1 Feb 2017);
- Navigator Control System: IEC 61511 Functional Safety Assessment Prior Use Route (E057\_PU002\_rev.1 May 2017);
- Safety Critical Software to meet the requirements of EN61508/ EN62061 to SIL 3 (Issue 2 May 2017);
- Renewal letter from TAIT, signed by Julian Hoare, VP of Global Control Design and Engineering, dated 06<sup>th</sup> December 2022.

This certificate can cover project-specific systems only if the system's requirements and design fully comply with Functional Design Specification (Issue 1 Feb 2017) and the subsequent documents listed above.

#### **The details of the System and the scope of the assessment are outlined below:**

A High Demand SIL 1 System monitored by a Low Demand SIL 2 System giving an Overall SIL 3 System. Safety Functions assessment comprising of:

- Random Hardware Failures;
- Safe Failure Fraction;
- Systematic Capability of Hardware and Software;
- Assessment of Components and Subsystems;
- Established Common Cause Factors.

**System designed and manufactured by:** TAIT Towers, 401 W Lincoln Avenue, Lititz, PA 17543

Managing Director: Simon Burwood  
Assessment Date: March 2014  
Renewal Date: December 2022, valid to December 2024  
Certificate: E057\_CT001 rev. 5

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