



FUNCTIONAL SAFETY IN INDUSTRIAL AUTOMATION BASED ON IEC 61508 AND IEC 61511 STANDARDS

The demanded safety of plants in the process industry (chemical plants, refineries, etc.) is increasingly being realised by complex safety instrumented systems (SIS). Requirements for these electrical, electronic and programmable electronic safety-related systems (E/E/PES) are defined in the international standard IEC 61508. Requirements regarding the implementation of these safety instrumented systems in the process industry by system designers, integrators and users are defined in the IEC 61511 (derived from the IEC 61508).

On May 2020 was issued a Declaration of Systematic Capability, proving the conformity of the established FSM system with the standards IEC61508 and IEC615111 (Systematic Capability SC3).

- ✦ Maximised transparency of your safety instrumented systems
- ✦ Reduced risk and improved regulatory compliance
- ✦ Improved availability and reliability

Our **Functional Safety Engineers** certified by TÜV Rheinland use industry standard software **xSILentia™ from Exida** for quantitative and qualitative SIL verification.



OUR SERVICES INCLUDE

- + Participating in Process Hazard Analysis (PHA) providing expertise in the identification of SIFs (SIF - Safety Instrument Function)
- + Preparation of a safety plan as required by IEC 61511
- + Preparation of a Safety Requirement Specification (SRS) documentation that details of project and customer specific requirements and it is a guide checklist for the detail design of SIS requirements for hardware and software
- + Engineering and design of SIS according to the applicable standards and regulations (EN/IEC, ATEX, EMC,...)
- + Safety Integrity Level (SIL) verifications (quantitative and qualitative verifications) that a SIF meets the required SIL level with all required documentation
- + Detailed engineering of SIS with all required documentation, both hardware and software in Safety PLC
- + Defining communication interfaces between Basic Process Control System (BPCS) and other automation systems
- + Applications programming of Safety PLC for implementing SIFs
- + Manufacturing of electrical cabinets and complete electrical and instrumentation on-site installation
- + Developing testing procedures e.g. Factory Acceptance Test (FAT), Site Integration Test (SIT), Site Acceptance Test (SAT), proof tests, maintenance procedures. Execution of all required tests.
- + Supervision and evaluating of existing SIS (e.g. ESD system, Safety PLC, BMS, BPS) and SIL classification based on IEC 61508 and IEC 61511 standards
- + Maintenance activities in order to keep technology in a required safe condition as defined in the maintenance procedures



400	Business Units
41	Countries
21 000	Employees
2,8	Billion revenue

ProCS, Ltd. has been presented under the Actemium brand since 2015, within the international VINCI Energies group.

Actemium is the first network dedicated to solutions and services for industry. Present throughout the industrial life cycle, Actemium designs, builds and maintains its customers' production equipment, with the aim of improving their industrial performance.

CONTACT

ProCS, Ltd.
Kráľovská ulica 8/824
927 01 Šaľa, SLOVAKIA

web: <http://www.actemium.sk>

e-mail: info@actemium.sk

LinkedIn: <https://linkedin.com/company/actemium-slovakia>