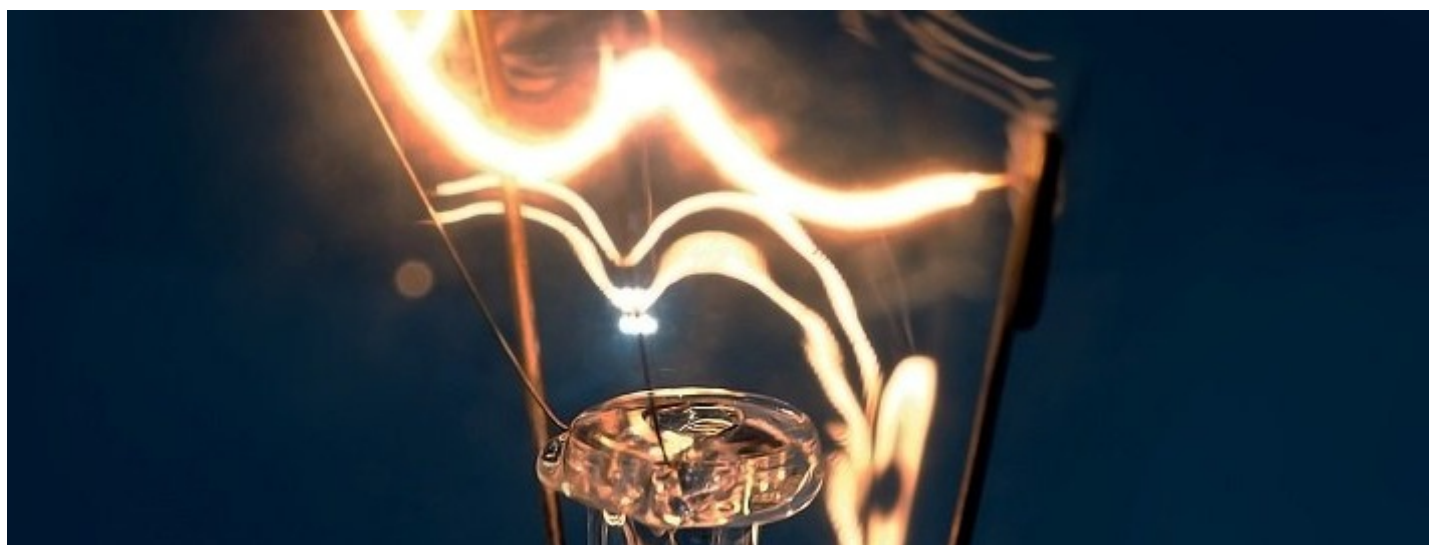


Functional safety



In the planning, development, production and maintenance of systems consisting of electrical and/or electronic components, functional safety must be taken into account from the outset.

Systems consisting out of electric and/or electrical components have been used to execute safety functions for many years in a wide range of application fields. Electrical/Electronic/Programmable Electronic Safety-related (E/E/PES) based upon computers are taking greater significance at deploying safety functions.

How can it be ensured that these systems are working properly?

During planning, development, production and maintenance, functional safety must be taken into account right from the start. When implementing these requirements in compliance with the relevant standards, an economical way must be found which nevertheless guarantees sufficient error control.

We offer services in the field of functional safety for all industries and cross-industry products.

As a DAKKS accredited testing and certification body for functional safety, our team of experts is at your side. You can rely on our competence in the field of testing, evaluation and certification.

Our services at a glance:

- Safety inspections
- Evaluation of systems
- Risk analyses (SIL ASIL / PL)
- Reviews of your documentation
- Concept and design analyses
- Verification and Validation

Evaluation of software and tools

- Architecture and design analyses

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- Testing of development tools
- Checking the communication protocols

Evaluation of hardware

- Probabilistic analyses
- Failure effect analyses
- Product testing

Certification

- Certification of components, devices and systems
- Certification of processes

Functional safety standards

- DIN EN/ IEC 61508-1: Functional safety: General requirements
- DIN EN/ IEC 61508-2: Functional safety: requirements for safety-related electrical/electronic/programmable electronic systems
- DIN EN/IEC 61508-3: Functional safety of safety-related electrical/electronic/programmable electronic systems - Part 3: Requirements for software
- DIN EN/ IEC 62061: Safety of machinery - Functional safety of safety-related electrical, electronic and programmable electronic control systems
- DIN EN/ ISO 13849-1: Safety of machinery - Safety-related parts of control systems