

FUNCTIONAL SAFETY IN A NUTSHELL

A COMPACT OVERVIEW OF THE FUNCTIONAL SAFETY REGULATION LANDSCAPE

The growing demand for sophisticated technology has pushed the manufacturing industry into the fast lane. As technology is evolving rapidly, manufacturers face the challenge of developing components and systems quickly and at low cost. They must also ensure that their products meet all necessary functional safety and quality requirements.

By doing so, hazardous states in systems or components can be minimised to limit damage to people, property and environment.

To avoid business losses and time-consuming reworks, it is important that manufacturers ensure that their products adhere to the quality and safety guidelines from the onset.

But, the wide range of functional safety standards creates a complex regulation landscape, sometimes making it difficult to find the appropriate product or system-related standard. TÜV SÜD can help you to simplify that complexity by identifying and interpreting the applicable functional safety standards.



FUNCTIONAL SAFETY COMPLEXITY

IEC 61508 – basic functional safety standard applicable to all kinds of industry.



THE FUNCTIONAL SAFETY PYRAMID

The functional safety pyramid offers a useful hierarchy to understand the scope of different functional safety standards and provides an interpretive approach for categorisation. With the support of the defined categories manufacturers, suppliers and operators can elaborate which standard might be applicable.



The most specific standard has precedence.

By testing and certifying components, products and systems according to different standards, manufacturers are able to use them for various applications in different industries.

HOW CAN TÜV SÜD HELP YOU?

TÜV SÜD can support you in selecting the applicable standard for various products, applications and industries, as well as providing relevant assessments, tests and certifications.

Safety checklists and best practices

Define relevant safety features before development to ensure compliance.

Documentation assistance and verification

Use tools for accurate documentation and reporting, as per certification guidelines, during development lifecycle.

Risk and hazard analysis

Minimise the risks during development to smoothly achieve a functional safety certification.

Independent safety assessment

Detect potential flaws at an early stage in the development process to avoid costly rework.

Product/system testing

Test your product or system according to the relevant functional safety requirements.

Product/system certification

Demonstrate your product or system quality and safety with a globally recognised certification mark.

Training

Learn more about relevant functional safety standards and participate in the Functional Safety Certification Programme (FSCP).



Find out more about TÜV SÜD's functional safety expertise
www.tuvsud.com/functional-safety