

# Achieve functional safety faster and more cost efficiently

As part of the broad scope of product safety, functional safety zeroes in on the safety-related systems of a product. And the earlier the better – focusing on functional safety early in the development process allows flexibility and reduced need for redesign, leading to faster market acceptance and cost savings down the road.

## The need for functional safety

A host of factors drive the need for functional safety evaluation among equipment and device manufacturers:

- Customer requirement
- Market demand
- Competitive advantage
- Legislation
- Regulations
- Trade unions
- Insurance companies

## Functional safety across multiple industries

As products and systems are becoming interconnected in more ways, the Internet of Things (IoT) becomes a reality in many domains. We are dedicated to helping customers navigate the complex technical and regulatory challenges of today's functional safety landscape. With our extensive certification expertise and holistic approach to safety engineering and assessment, we can help customers identify, specify and determine the functional safety of products and systems to key standards and ratings across many industries.

### Functional safety



Automotive



Hazardous locations



Appliances



Energy



Power distribution



Lighting



Medical devices



eMobility



Industrial automation



HVAC



Security and signaling



## Comprehensive suite of services for functional safety

UL Solutions provides a comprehensive suite of services for functional safety, including:

- Functional safety certification
- Machinery Directive and normative regulation compliance
- Training:
  - Functional safety standards and compliance
  - Templates for hazard and risk analysis (HARA) for FMEA and reliability analysis
  - Fault tree training
  - Safety plan template for various standards (UL 1998, ISO 13849, IEC 61508, IEC 61511, ISO 26262 and others)
  - Facilitation of risk assessments (HARA, FTA, HBSE and FMEA)

### Marks that make a difference

Backed by more than a century of technical expertise, UL Solutions is distinguished by a depth of services and capabilities. Our Marks are a symbol of safety unparalleled in the industry.

### Functional Safety Certification Mark

We offer UL Solutions Functional Safety Certification Marks that can be added, for those qualifying companies, in the process of getting a traditional safety certification from UL Solutions. The Functional Safety Mark replaces the traditional UL Solutions safety-only Mark on products, and it is available for compliance to U.S., Canada and European requirements.

### Functional Safety Recognized Component Mark

Our service covers the evaluation of components or materials intended for use in an end-product functional safety certification. The UL Solutions Functional Safety Recognized Component Mark is available for the U.S. and Canada.

### Why choose UL Solutions?

UL Solutions drives global research and standards to continually advance and meet ever-evolving product safety, performance and interoperability needs. Our global network of technical experts and state-of-the-art facilities, along with our longstanding relationships with regulatory authorities, partner laboratories and industry technical leaders, helps manufacturers gain the compliance credentials they need to compete in a more complex global supply chain.

### Knowledge you can trust

– our experienced staff will advise you from the initial design stage of product development through testing and production. Our experts can assist you in understanding the certification requirements for your specific markets.

– our cost-effective systems and state-of-the-art facilities cut through the red tape and help accelerate your time to market.

### Single source provider

– UL Solutions meets all of your compliance needs and, by bundling safety, performance and interoperability services, also helps save you valuable time and money.

### Global market access

– our global network of expert engineers helps you understand the various national and global requirements for your specific market application.

### Advisory and training

– UL Solutions can help you learn how to effectively navigate the changes specific to the safety requirements for electrical, thermal and energy. Our dedicated training staff can help you to understand how to interpret and apply these standards to your products. We offer custom on-site training sessions on these and many other standards. Let us come to you – maximize your training with UL Solutions private and custom workshops. For more information on training: [UL.com/IndustrialTraining](https://www.ul.com/IndustrialTraining).



PROGRAMMABLE CONTROLLER  
(XXXXX)  
ALSO INVESTIGATED TO  
IEC 61508, Parts 1-3 (1998) Up to SIL 3  
ISO 13849, Parts 1-2 (2006) Up to PL e  
See installation manual for safety function



### Speed and efficiency

For more information, visit [UL.com/FunctionalSafety](https://www.ul.com/FunctionalSafety)



Safety. Science. Transformation.™