

Deutsche Akkreditierungsstelle

Annex to the Partial Accreditation Certificate D-ZE-11190-01-02 according to DIN EN ISO/IEC 17065:2013

Valid from: 14.03.2023

Date of issue: 11.01.2024

This annex is a part of the accreditation certificate D-ZE-11190-02-00.

Holder of partial accreditation certificate:

TÜV SÜD Rail GmbH
Barthstraße 16, 80339 München

The certification body meets the requirements of DIN EN ISO/IEC 17065:2013 to carry out the conformity assessment activities listed in this annex. The certification body meets additional legal and normative requirements, if applicable, including those in relevant sectoral schemes, provided that these are explicitly confirmed below.

The management system requirements of DIN EN ISO/IEC 17065 are written in the language relevant to the operations of certification bodies and confirm generally with the principles of DIN EN ISO 9001.

Functional safety for components (objects, devices and systems)

- **Of machine safety**
- **In appliances for household use**
- **In ICA equipment**

This certificate annex is only valid together with the written accreditation certificate and reflects the status as indicated by the date of issue. The current status of any given scope of accreditation can be found in the directory of accredited bodies maintained by Deutsche Akkreditierungsstelle GmbH at <https://www.dakks.de>.

Abbreviations used: see last page

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Certifications in accordance with:

TR_CT_P_04.50
2021-01

Certification Body TRC – Certification Scheme – Functional Safety

Based on the requirements of the assessment and specification documentation listed below:

1 Basic standards of functional safety

IEC 61508-1 2010-04	Functional safety of electrical/electronic/programmable electronic safety-related systems – Part 1: General requirements
EN 61508-1 2010-05	Functional safety of electrical/electronic/programmable electronic safety-related systems – Part 1: General requirements
DIN EN 61508-1 VDE 0803-1 2011-02	Functional safety of electrical/electronic/programmable electronic safety-related systems – Part 1: General requirements (IEC 61508-1:2010); German version EN 61508-1:2010
IEC 61508-2 2010-04	Functional safety of electrical/electronic/programmable electronic safety-related systems – Part 2: Requirements for electrical/electronic/programmable electronic safety-related systems
EN 61508-2 2010-05	Functional safety of electrical/electronic/programmable electronic safety-related systems – Part 2: Requirements for electrical/electronic/programmable electronic safety-related systems
DIN EN 61508-2 VDE 0803 – 2 2011-02	Functional safety of electrical/electronic/programmable electronic safety-related systems – Part 2: Requirements for electrical/electronic/programmable electronic safety-related systems

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IEC 61508-3 2010-04	Functional safety of electrical/electronic/programmable electronic safety-related systems – Part 3: Software requirements
EN 61508-3 2010-05	Functional safety of electrical/electronic/programmable electronic safety-related systems – Part 3: Software requirements
DIN EN 61508-3 VDE 0803–3 2011-02	Functional safety of electrical/electronic/programmable electronic safety-related systems – Part 3: Software requirements

2 Application-dependent functional safety requirement standards

2.1 Safety of machinery

ISO 13849-1 2015-12	Safety of machinery – Safety-related parts of control systems – Part 1: General principles for design
DIN EN ISO 13849-1 2016-06	Safety of machinery – Safety-related parts of control systems – Part 1: General principles for design
IEC 62061 2015-06	Safety of machinery – Functional safety of safety-related electrical, electronic and programmable electronic control systems
IEC 62061 A2 2015-06	Safety of machinery – Functional safety of safety-related electrical, electronic and programmable electronic control systems; Amendment 2
IEC 62061 2021-03	Safety of machinery – Functional safety of safety-related electrical, electronic and programmable electronic control systems;
EN 62061 2005-04	Safety of machinery – Functional safety of safety-related electrical, electronic and programmable electronic control systems
EN 62061 2021-07	Safety of machinery – Functional safety of safety-related electrical, electronic and programmable electronic control systems
DIN EN 62061 VDE 0113-50 2016-05	Safety of machinery – Functional safety of safety-related electrical, electronic and programmable electronic control systems
IEC 61800-5-2 2016-04	Adjustable speed electrical power drive systems – Part 5-2: Safety requirements – Functional
EN 61800-5-2 2017-04	Adjustable speed electrical power drive systems – Part 5-2: Safety requirements – Functional

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DIN EN 61800-5-2 2017-11	Adjustable speed electrical power drive systems – Part 5-2: Safety requirements – Functional
IEC 61800-5-3 2021-02	Adjustable speed electrical power drive systems – Part 5-3: Safety requirements – Functional, electrical and environmental requirements for encoders
ISO 10218-1 2011-07	Robots and robotic devices – Safety requirements for industrial robots – Part 1: Robots
EN ISO 10218-1 2011-07	Robots and robotic devices – Safety requirements for industrial robots – Part 1: Robots
DIN EN ISO 10218-1 2012-01	Robots and robotic devices – Safety requirements for industrial robots – Part 1: Robots
IEC 61496-1 2020-07	Safety of machinery – Electro-sensitive protective equipment – Part 1: General requirements and tests
EN IEC 61496-1 2020-09	Safety of machinery – Electro-sensitive protective equipment – Part 1: General requirements and tests
DIN EN IEC 61496-1 2021-06	Safety of machinery – Electro-sensitive protective equipment – Part 1: General requirements and tests
IEC 61496-2 2020-07	Safety of machinery – Electro-sensitive protective equipment – Part 2: Particular requirements for equipment using active opto-electronic protective devices
EN IEC 61496-2 2021-04	Safety of machinery – Electro-sensitive protective equipment – Part 2: Particular requirements for equipment using active opto-electronic protective devices
DIN EN IEC 61496-2 2021-08	Safety of machinery – Electro-sensitive protective equipment – Part 2: Particular requirements for equipment using active opto-electronic protective devices
IEC 61496-3 2018-12	Safety of machinery – Electro-sensitive protective equipment – Part 3: Particular requirements for active opto-electronic protective devices responsive to diffuse reflection (AOPDDR)
EN IEC 61496-3 2019-02	Safety of machinery – Electro-sensitive protective equipment – Part 3: Particular requirements for active opto-electronic protective devices responsive to diffuse reflection (AOPDDR)

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DIN EN IEC 61496-3
2019-10 Safety of machinery – Electro-sensitive protective equipment – Part 3: Particular requirements for active opto-electronic protective devices responsive to diffuse reflection (AOPDDR)

2.2 Appliances for household use

IEC 60730-1
2013-11 Automatic electrical controls – Part 1: General requirements

IEC 60730-1 A 1
2015-12 Automatic electrical controls – Part 1: General requirements; Amendment 1

IEC 60730-1 A 2
2020-04 Automatic electrical controls – Part 1: General requirements;

EN 60730-1
2016-07 Automatic electrical controls – Part 1: General requirements

EN 60730-1
2016-07 Automatic electrical controls – Part 1: General requirements
A1:2019-04
A2:2022-03

DIN EN 60730-1
VDE 0631-1
2017-05 Automatic electrical controls for household use and similar applications – Part 1: General requirements

DIN EN 60730-1
2021-06 Automatic electrical controls for household use and similar applications – Part 1: General requirements

IEC 61784-3
2021-02 Industrial communication networks – Profiles – Part 3: Functional safety fieldbuses – General rules and profile definitions

EN IEC 61784-3
2021-03 Industrial communication networks – Profiles – Part 3: Functional safety fieldbuses – General rules and profile definitions

DIN EN IEC 61784-3
2022-02 Industrial communication networks – Profiles – Part 3: Functional safety fieldbuses – General rules and profile definitions

EN 50402
2017-03 Electrical apparatus for the detection and measurement of combustible or toxic gases or vapours or of oxygen – Requirements on the functional safety of gas detection systems

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DIN EN 50402 2018-01	Electrical apparatus for the detection and measurement of combustible or toxic gases or vapours or of oxygen – Requirements on the functional safety of gas detection systems
IEC 60335-1 2020-09	Household and similar electrical appliances – Safety – Part 1: General requirements
IEC 60335-1 2021-12 Cor 1	Household and similar electrical appliances – Safety – Part 1: General requirements; Corrigendum 1
EN 60335-1/A15 2021-06	Household and similar electrical appliances – Safety – Part 1: General requirements
EN 60335-1/A2 2019-08	Household and similar electrical appliances – Safety – Part 1: General requirements (IEC 60335-1:2010/A2:2016 + COR1:2016)
EN 60335-1/A1 2019-08	Household and similar electrical appliances – Safety – Part 1: General requirements (IEC 60335-1:2010/A1:2013, modified + COR1:2014)
EN 60335-1/A14 2019-08	Household and similar electrical appliances – Safety – Part 1: General requirements
EN 60335-1/A13 2017-10	Household and similar electrical appliances – Safety – Part 1: General requirements
EN 60335-1 2012-01	Household and similar electrical appliances – Safety – Part 1: General requirements
DIN EN 60335-1 2020-08	Household and similar electrical appliances – Safety – Part 1: General requirements

2.3 ICA equipment

IEC 61511-1 2016-02	Functional safety – Safety instrumented systems for the process industry sector – Part 1: Framework, definitions, system, hardware and application programming requirements
EN 61511-1 2017-04	Functional safety – Safety instrumented systems for the process industry sector – Part 1: Framework, definitions, system, hardware and application programming requirements

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DIN EN 61511-1 VDE 0810-1 2019-02	Functional safety – Safety instrumented systems for the process industry sector – Part 1: Framework, definitions, system, hardware and application programming requirements
IEC 61511-1 A 1 2017-08	Functional safety – Safety instrumented systems for the process industry sector – Part 1: Framework, definitions, system, hardware and application programming requirements; Amendment 1

Abbreviations used:

DIN	Deutsches Institut für Normung e.V. (German Institute for Standardisation)
EN	European Standard
IEC	International Electrotechnical Commission
ISO	International Organization for Standardization
MSR	Instrumentation, control and automation
TR	TÜV SÜD Rail
TR_CT_P_	Certification procedure of TÜV Süd Rail GmbH

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