

Deutsche Akkreditierungsstelle GmbH

Annex to the Accreditation Certificate D-IS-14153-02-08 according to DIN EN ISO/IEC 17020:2012

Valid from: 14.04.2020

Date of issue: 14.04.2020

Holder of certificate:

TÜV SÜD Industrie Service GmbH
Inspection body for funktional safety
Friedenstr. 6, 93051 Regensburg

for its inspection body Type A

Inspections in the fields:

Functional safety of MCR safety devices on plants and systems in the applications of process engineering systems, machines and explosion protection

Inspection programs for the evaluation of functional safety:

Inspection procedure: „*Prüfung der funktionalen Sicherheit von MSR-/PLT-Schutzeinrichtungen an Prozessanlagen*“ with date from 20.02.2019 Rev. 00

Inspection procedure: „*Prüfung der funktionalen Sicherheit von MSR-/PLT-Schutzeinrichtungen im Rahmen von Explosionsschutzmaßnahmen*“ with date from 20.02.2019 Rev. 00

Inspection procedure: „*Prüfung der funktionalen Sicherheit von MSR-/PLT-Schutzeinrichtungen an Maschinen oder Maschinenanlagen*“ with date from 20.02.2019 Rev. 00

This document is a translation. The definitive version is the original German annex to the accreditation certificate.

Abbreviations used: see last page

The certificate together with its annex reflects the status at the time of the date of issue. The current status of the scope of accreditation can be found in the database of accredited bodies of Deutsche Akkreditierungsstelle GmbH.
<https://www.dakks.de/en/content/accredited-bodies-dakks>

Annex to the accreditation certificate D-IS-14153-02-08

The aforementioned inspection procedures are used in the following systems and systems:

In the context of safety considerations, MSR safety devices can be used to reduce the risk of process plants, machines or in potentially explosive areas.

The aforementioned inspection procedures apply to the entire MSR safety device, which generally consists of the following three components:

- sensor
- logic unit
- actuator

The inspections are based on the following basic standards and regulations for functional safety:

IEC 61508-1:2010-04 EN 61508-1:2010-05 DIN EN 61508-1:2011-02	Functional safety of electrical/electronic/programmable electronic safety-related systems - Part 1: General requirements
IEC 61508-2:2010-04 EN 61508-2:2010-05 DIN EN 61508-2:2011-02	Functional safety of electrical/electronic/programmable electronic safety-related systems - Part 2: Requirements for electrical/electronic/programmable electronic safety-related systems
IEC 61508-3:2010-04 EN 61508-3:2010-05 DIN EN 61508-3:2011-02	Functional safety of electrical/electronic/programmable electronic safety-related systems - Part 3: Software requirements
EN ISO 13849-1:2008-06 ISO 13849-1:2015-12 DIN EN ISO 13849-1:2016-06	Safety of machinery - Safety-related parts of control systems - Part 1: General principles for design
EN ISO 13849-2:2008-06 ISO 13849-2:2012-10 DIN EN ISO 13849-2:2010-06 DIN EN ISO 13849-2:2013-02	Safety of machinery - Safety-related parts of control systems - Part 2: Validation

-Translation-

Valid from: 14.04.2020

Date of issue: 14.04.2020

Annex to the accreditation certificate D-IS-14153-02-08

<p>IEC 62061:2015-01 IEC 62061 Corrigendum 1:2005-07 IEC 62061 Corrigendum 2:2008-04 IEC 62061 Edition 1.2 Corrigendum 1:2015-08 IEC 62061 AMD 1:2012-11 IEC 62061 AMD 2:2015-06 EN 62061: 2005-04 EN 62061/AC:2010-02 EN 62061/A1:2013-02 EN 62061/A2:2015-08 DIN EN 62061:2016-05</p>	<p>Safety of machinery - Functional safety of safety-related electrical, electronic and programmable electronic control systems</p>
<p>DIN EN 61511-1: 2019-02 EN 61511-1: 2017-04 IEC 61511-1:2016-02 DIN EN 61511-1:2012-10</p>	<p>Functional safety - Safety instrumented systems for the process industry sector - Part 1: Framework, definitions, system, hardware and application programming Requirements</p>
<p>EN 61511-2: 2019-02 EN 61511-2: 2017-04 IEC 61511-2:2016-07 DIN EN 61511-2:2005-05 DIN EN61511-2:2013-01 (Entwurf)</p>	<p>Functional safety - Safety instrumented systems for the process industry sector - Part 2: Guidelines for the application of IEC 61511-1</p>
<p>EN 61511-3:2019-02 EN 61511-3:2017-04 IEC 61511-3:2016-07 DIN EN 61511-3:2005-05</p>	<p>Functional safety - Safety instrumented systems for the process industry sector - Part 3: Guidance for the determination of the required safety integrity levels</p>
<p>TRGS 725 Ausgabe: Januar 2016 GMBI 2016 S. 238-256 [Nr. 12-17] (v. 26.04.2016) Zuletzt geändert und ergänzt: GMBI 2018 S. 194 [Nr. 7-11] (v. 03.04.2018)</p>	<p>TRGS 725, Dangerous explosive atmosphere - measuring, control and regulation devices in the context of explosion protection measures</p>

-Translation-

Valid from: 14.04.2020

Date of issue: 14.04.2020

VDI/VDE 2180 Blatt 1, 2007-04, 2018-02	Functional safety in the process industry - Introduction, terms, conception
VDI/VDE 2180 Blatt 2, 2007-04, 2018-02	Functional safety in the process industry - Planning, installation and operation of safety instrumented functions
VDI/VDE 2180 Blatt 3, 2007-04, 2018-02	Functional safety in the process industry - Verification of probability of failure on demand (PFD)
VDI/VDE 2180 Blatt 4, 2010-07, 2018-02	Safeguarding of industrial process plants by means of process control engineering - Verification of the hardware safety integrity of safety instrumented systems
VDI/VDE 2180 Blatt 5, 2010-05	Safeguarding of industrial process plants by means of process control engineering (PCE) - Recommendations for practical use
VDI/VDE 2180 Blatt 6, 2013-06	Safeguarding of industrial process plants by means of process control engineering (PCE) - Application of functional safety in the context of explosion protection

used abbreviations:

MCR safety device

Measuring, control and regulating safety device

-Translation-

Valid from: 14.04.2020

Date of issue: 14.04.2020