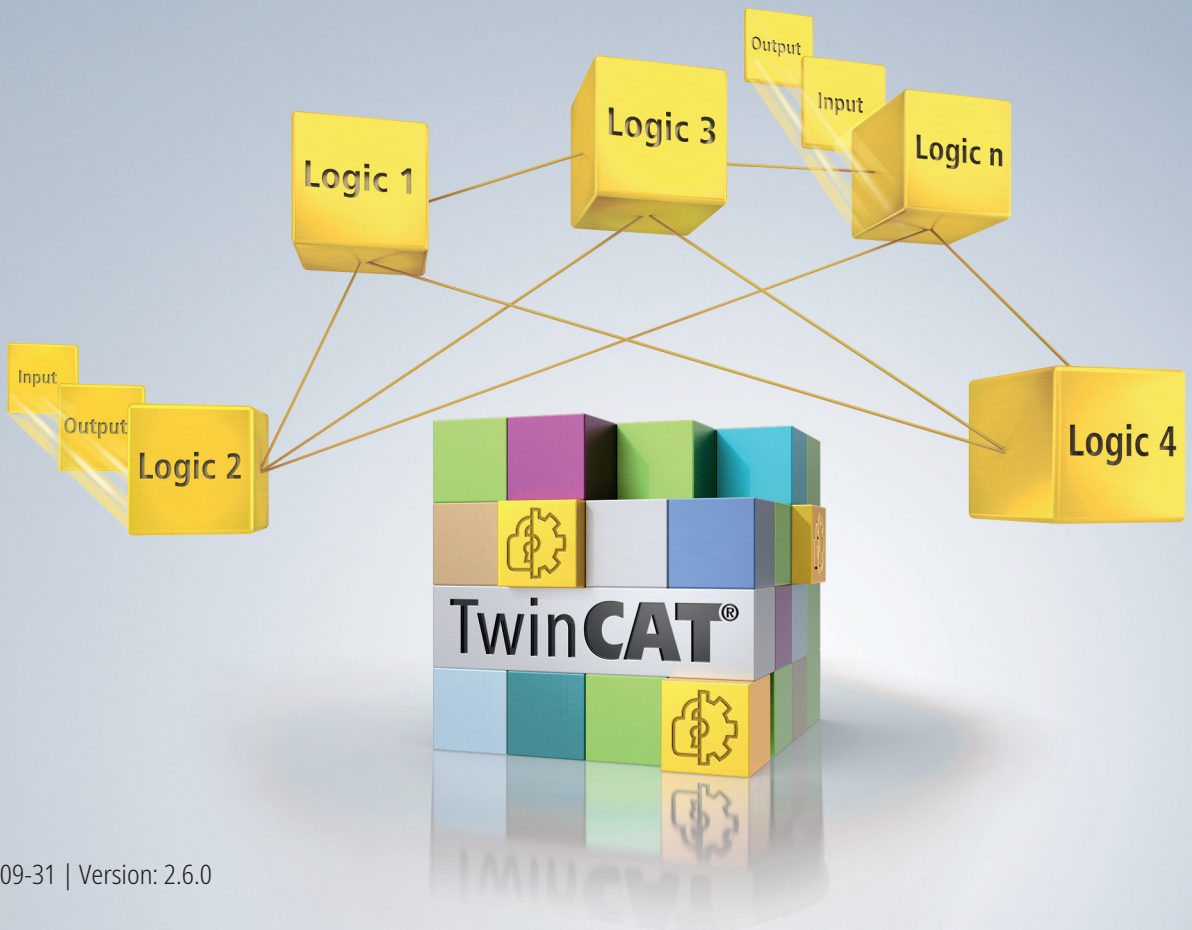
BECKHOFF New Automation Technology

Manual | EN

TwinSAFE Certificates

Overview and Explanation



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1 Notes on the documentation

1.1 Disclaimer

Beckhoff products are subject to continuous further development. We reserve the right to revise the operating instructions at any time and without prior announcement. No claims for the modification of products that have already been supplied may be made on the basis of the data, diagrams and descriptions in these operating instructions.

In these operating instructions we define all permissible use cases whose properties and operating conditions we can guarantee. The use cases we define are fully tested and certified. Use cases beyond this, which are not described in these operating instructions, require the approval of Beckhoff Automation GmbH & Co KG.

1.1.1 Trademarks

Beckhoff®, TwinCAT®, EtherCAT®, EtherCAT G®, EtherCAT G10®, EtherCAT P®, Safety over EtherCAT®, TwinSAFE®, XFC®, XTS® and XPlanar® are registered and licensed trademarks of Beckhoff Automation GmbH.
The use of other brand names or designations by third parties may lead to an infringement of the rights of the owners of the corresponding designations.

1.1.2 Patents

The EtherCAT technology is protected by patent rights through the following registrations and patents with corresponding applications and registrations in various other countries:

- EP1590927
- EP1789857
- EP1456722
- EP2137893
- DE102015105702

EtherCAT® is a registered trademark and patented technology, licensed by Beckhoff Automation GmbH.

Safety over EtherCAT® is a registered trademark and patented technology, licensed by Beckhoff Automation GmbH.

1.1.3 Copyright

1.2 Version numbers

Version	Comment
2.6.0	• Chapter renamed • Chapter “TwinSAFE Products” updated • UKCA mark added • EJx9xx, EL1904, KL1904, KL6904, EL2904, KL2904, AX5801 und AX5805, AX5806: M6A-Baumusterprüfbescheinigung und/oder EG-Konformitätserklärung aktualisiert • TwinSAFE card ELM8911 added • Chapter “AX8911” renamed
2.5.0	• Naming of TwinSAFE cards adapted • KL1904 EC declaration of conformity corrected • EL6900 Z10 certificate, M6A type examination certificate and EC declaration of conformity updated
2.4.0	• Z10 certificate, M6A type examination certificate and EC declaration of conformity for the following products updated: EL1918, EL2911, EL2912, EL6910, EJ6910, EP1918, EP1957, EP2918 • EJx9xx M6A type examination certificate and EC declaration of conformity updated • AX8 series Z10 certificate and M6A type examination certificate updated • Chapter “Beckhoff Support and Service” updated
2.3.0	• EJx9xx UL certificate updated • TwinSAFE Loader EC declaration of conformity updated
2.2.0	• AMI8911 Z10 and M6A type examination certificates added • AMI8911 added to the product overview • AMP8000 (AMP8911) Z10 and M6A type examination certificates added • AMP8000 (AMP8911) added to the product overview • EL1918 and EL2912 EU-ESD type examination certificates added • EL1918 and EL2912 EC declarations of conformity updated • Chapter “Beckhoff Support and Service” updated • Link adapted on the rear side
2.1.0	• Changed the release from 1.11.0 to 2.0.0 of the version of 21/06/2021 • Added an extra line in the certificate overview for EJx9xx and variants without housing • Z10 certificate for EJx9xx and variants without housing updated
2.0.0	• Editorially revised • Brands updated • Product overview table with certificate numbers added • EL1904, EL2904, EL6910 EU-ESD EU type examination certificates added • EL1904, EL2904, EL6910 EC declarations of conformity updated • EL1904, EL2904, EL6900 U8V NRTL certificates updated • AX8xxx M6A type examination certificate added • Application Guide confirmation of conformity updated • EP1918 M6A certificate added • EP1918 certificates added to certificate overview
1.10.0	• EP1918 UL certificate updated
1.9.0	• AX8xxx-x1xx/AX8xxx-x2xx certificate updated
1.8.0	• EL2912 EC declaration of conformity added • EP2918 EC declaration of conformity added

Version	Comment
	• EP1918 EC declaration of conformity added
1.7.0	• EP1918 certificates added
1.6.0	• AX8xxx-x1xx/AX8xxx-x2xx certificate updated • AX5801 certificate updated
1.5.0	• EP2918 certificates added
1.4.0	• UL certificates updated • EL1904 / EL2904 certificates updated • EL/EJ7211-9x14 removed from list • TwinSAFE Loader / TwinSAFE User updated • EL2912 certificates added
1.3.1	• AX5805/AX5806 certificate updated
1.3.0	• UR note added to EP1957 • UL certification EL1918, EL2911, EL2912 added
1.2.0	• Conversion to docx format • UL certificates sorted • EC declaration of conformity added: EL1918, EL2911 and EP1957
1.1.0	• Z10 and M6A certificates for EL1918, EL2911 and EP1957 inserted
1.0.0	• First release • UL certificates added • cULus Online Certification Directory data added • Chapter *Support and Service* added
0.4.0	• Formatting adjusted
0.3.0	• Standards expiry date added
0.2.0	• Marking and table extended
0.1.0	• First draft

1.3 Safety and instruction

Read the contents that refer to the activities you have to perform with the product. Always read the chapter For your safety in the operating instructions.

Observe the warnings in the chapters so that you can handle and work with the product as intended and safely.

1.3.1 Explanation of symbols

Various symbols are used for a clear arrangement:

1. The numbering indicates an action that should be taken.
- The bullet point indicates an enumeration.

[…] The square brackets indicate cross-references to other text passages in the document.

[1] The number in square brackets indicates the numbering of a referenced document.

1.3.1.1 Signal words

The signal words used in the documentation are classified below.

Warning of personal injuries

⚠ DANGER
Hazard with high risk of death or serious injury.

⚠ WARNING
Hazard with medium risk of death or serious injury.

⚠ CAUTION
There is a low-risk hazard that could result in medium or minor injury.

Warning of damage to property or environment

NOTICE
Notes The environment, equipment, or data may be damaged.

Information on handling the product

This information includes, for example:
Recommendations for action, assistance or further information on the product.

1.4 Beckhoff Support and Service

Support

Beckhoff Support offers technical advice on the use of individual Beckhoff products and system planning. The employees support you in the programming and commissioning of sophisticated automation systems.

Hotline:	+49 5246/963-157
E-mail:	support@beckhoff.com
Web:	www.beckhoff.com/support

Training

Training in Germany takes place in our training center at the Beckhoff headquarters in Verl, at subsidiaries or, by arrangement, at the customer's premises.

Hotline:	+49 5246/963-5000
E-mail:	training@beckhoff.com
Web:	www.beckhoff.com/training

Service

The Beckhoff Service Center supports you with after-sales services such as on-site service, repair service or spare parts service.

Hotline:	+49 5246/963-460
E-mail:	service@beckhoff.com
Web:	www.beckhoff.com/service

Download area

In the download area you can obtain product information, software updates, the TwinCAT automation software, documentation and much more.

Web:	www.beckhoff.com/download

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For the addresses of our worldwide locations, please visit our website at Global Presence.

2 Overview of the TwinSAFE Products

This document provides an overview of all TwinSAFE products from Beckhoff Automation GmbH & Co. KG and their certifications and confirmations.

The corresponding documents for each product are listed in the appendix.

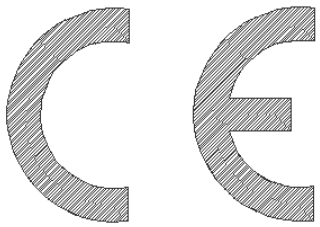
2.1 Glossary

Code	Description
TÜV SÜD Z10	A Z10 certificate is issued for the use of the product in the European Union and contains the DIN, EN or IEC standards relevant to the product. The table lists the corresponding standards.
Confirmation of conformity	A confirmation of conformity from TÜV SÜD typically has no expiry date and confirms a specific property of a product at the time of testing.
TÜV SÜD U8	A U8 certificate is issued in addition to an NRTL, NFPA or CSA certification and includes standards relevant to the North American market. The table lists the corresponding standards.
M6A	An M6A certificate is the EC Type Examination Certificate for the corresponding TwinSAFE product.
EC	The EC declaration of conformity is issued by Beckhoff Automation GmbH & Co. KG on the basis of the associated M6A certificate.
cULus	The entry cULus refers to a certification according to UL 508 / UL 61010-1 / UL 61010-2-201 / UL 508C / UL 61800-5-1.
RoHS	EN 50581:2012 is listed in the EC declaration of conformity. Thus, the RoHS marking *RoHS 2011/65/EU* may be applied to the product. The table does not list this marking separately.
CE	Based on the EC declaration of conformity, a CE mark must be affixed to the product. The table does not list this marking separately.
UKCA	The UKCA mark (UKCA = UK Conformity Assessed) is the new British product marking that is required for certain products that are placed on the market in Great Britain (England, Wales and Scotland). It applies to most products that previously required the CE mark.
EAC	For the Russian market, which includes Russia, Belarus, Armenia, Kazakhstan and Kyrgyzstan, the EAC logo must be placed on the product. For manufacturers outside Russia or outside the EAWU (Eurasian Economic Union), an authorized representative in the EAWU is required to be responsible for marking.
CCC	*China Compulsory Certification* is a certification for the Chinese market.
KC	KC (*Korea Certification*) is a certification for the South Korean market.
RCM	*Regulatory Compliance Mark* is used for the Australian market and focuses on electrical safety and electromagnetic compatibility. (*Australian Standard AS/NZS 4417 - Regulatory compliance mark for electrical and electronic equipment* supplemented with *Amendment 2* of January 2016)

2.2 Product labels

The Beckhoff TwinSAFE components are marked with the following labels, provided that the corresponding requirements for the use of the label are met. Information on this can also be found in the glossary.

2.2.1 CE



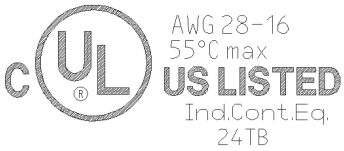
The CE mark used complies with the requirements of the Machinery Directive 2006/42/EC.

2.2.2 RoHS

At Beckhoff, the RoHS mark is used with a diamond and mention of the current directive.

2.2.3 UL 508 and UL 61010

UL 508



The UL marking varies according to the TwinSAFE product:

- AWG 28-16 denotes terminals, here for example with an HD housing. Other products do not have this marking at all or have it adapted.
- The temperature indicates the specified maximum ambient temperature of the product.
- Ind.Cont.Eq (*Industrial Control Equipment*) is the marking indicating under which range the product is certified.
- 24TB is the identifier for Beckhoff Automation GmbH & Co. KG.

UL 61010

Products that are given the *UL Recognition* mark are incomplete in certain design features or limited in performance characteristics. In the listing of products, these are marked as *component* .

2.2.4 UKCA

The UKCA mark (UKCA = UK Conformity Assessed) is the new British product marking that is required for certain products that are placed on the market in Great Britain (England, Wales and Scotland). It applies to most products that previously required the CE mark.

2.2.5 TÜV SÜD

The TÜV SÜD logo with the text *Functional Safety* may be affixed to the product after successful certification of the product by TÜV SÜD. The relevant standards are EN ISO 13849-1:2015 or EN 61508:2010.

2.2.6 TÜV SÜD NRTL

The TÜV SÜD NRTL logo with the text *Safety tested / Production monitored* may be affixed to the product after successful certification of the product by TÜV SÜD. The relevant standards are UL 1998 and CAN/CSA-C22.2.

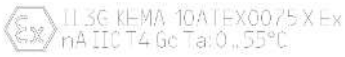
2.2.7 Safety over EtherCAT

The Safety over EtherCAT mark is applied to the product when the FSoE conformance test has been successfully completed.

2.2.8 EAC

The EAC marking is used for the Russian market and is comparable to the CE marking.

2.2.9 ATEX



The ATEX mark is applied to the product when ATEX approval for zone 2 has been obtained. The previous certification was done by KEMA, but in the future it can also be done by DEKRA. The marking will then be adjusted accordingly.

2.2.10 CCC

The CCC mark may be affixed to the product if CCC (*China Compulsary Certification*) has been performed and confirmed.

2.2.11 KC

The KC mark (*Korea Certification*) is used for the South Korean market.

2.2.12 RCM (formerly C-Tick)

The RCM mark (*Regulatory Compliance Mark*) is used for the Australian market. This mark has replaced the C-Tick logo.

2.3 TwinSAFE Products

The following table lists the certifications of the TwinSAFE products with the associated standards and guidelines.

Description of symbols

Mark	Description
-	Document or certification is not available.
x	Document or certification is available and is listed in the appendix.
<Date>	Expiry date of the certificate (English date format).
OCD	Online Certification Directory (UL 61010 / UL 508) UL File number: E172151 UL Category Code: NRAQ2 / NRAQ8
n.a.	Not applicable.
Column *Further*	This column lists any additional certificates or confirmations, such as UL Recognition or ATEX.

2.3.1 KL

Product	TÜV SÜD Z10 / Declaration of Conformity	TÜV SÜD U8	M6A / EU-ESD Type examination certificate	EC	cULus	Further
KL1904	Z10 062386 0061 Rev. 02 2006/42/EC EN 61508-1:2010 EN 61508-2:2010 EN 61508-3:2010 EN 62061:2021 EN ISO 13849-1:2023 <2029-07-30>	U8 07 04 62386 00 1 UL508:1999 CAN/CSA-C22.2 No. 142-M1987 UL1998:1998 UL991:2004	M6A 18 01 62386 047 <2029-07-30>	x	20160406 -E172151	• ATEX KEMA 10ATEX007 5 X • EAC • RoHS • NRTL
KL2904	Z10 062386 0060 Rev. 01 2006/42/EC EN 61508-1:2010 EN 61508-2:2010 EN 61508-3:2010 EN ISO 13849-1:2023 EN IEC 62061:2021 <2029-08-19>	U8 07 04 62386 00 1 UL508:1999 CAN/CSA-C22.2 No. 142-M1987 UL1998:1998 UL991:2004	M6A 062386 0108 Rev. 00 <2029-08-19>	x	20160406 -E172151	• ATEX KEMA 10ATEX007 5 X • EAC • RoHS • NRTL
KL6904	Z10 062386 0109 Rev. 00 2006/42/EC EN 61508-1:2010 EN 61508-2:2010 EN 61508-3:2010 EN ISO 13849-1:2023 EN IEC 62061:2021 <2029-08-21>	U8 07 04 62386 00 1 UL508:1999 CAN/CSA-C22.2 No. 142-M1987 UL1998:1998 UL991:2004	M6A 062386 0110 Rev. 00 <2029-08-21>	x	20160406 -E172151	• ATEX KEMA 10ATEX007 5 X • EAC • RoHS • NRTL

2.3.2 EL

Product	TÜV SÜD Z10 / Declaration of Conformity	TÜV SÜD U8	M6A / EU-ESD Type examination certificate	EC	cULus	Further
EL1904	Z10 062386 0111 Rev. 00 2006/42/EC EN 61508-1:2010 EN 61508-2:2010 EN 61508-3:2010 EN ISO 13849-1:2023 EN IEC 62061:2021 <2029-07-30>	U8V 062386 0085 Rev. 00 UL 61010-1:2012/ R:2018-11 CAN/CSA-C22-2 No. 61010-1:2012/ A1:2018 UL 61010-2-201:2018 CAN/CSA-C22.2 No. 61010-2-201:2018	M6A 062386 0095 Rev. 00 <2028-08-31> EU-ESD 043	x	20180309 -E172151	• ATEX KEMA 10ATEX007 5 X • EAC • RoHS • NRTL

Product	TÜV SÜD Z10 / Declaration of Conformity	TÜV SÜD U8	M6A / EU-ESD Type examination certificate	EC	cULus	Further
EL1918	Z10 062386 0054 Rev. 02 2006/42/EC EN 61508-1:2010 EN 61508-2:2010 EN 61508-3:2010 EN 62061:2021 EN ISO 13849-1:2015 <2027-11-02>	-	M6A 062386 0055 Rev. 01 <2027-11-02> EU-ESD 047	x	20181116 -E172151	• ATEX KEMA 10ATEX007 5 X • EAC • RoHS • NRTL
EL2904	Z10 062386 0107 Rev. 00 2006/42/EC EN 61508-1:2010 EN 61508-2:2010 EN 61508-3:2010 EN ISO 13849-1:2023 EN IEC 62061:2021 <2029-08-22>	U8V 062386 0085 Rev. 00 UL 61010-1:2012/ R:2018-11 CAN/CSA-C22-2 No. 61010-1:2012/ A1:2018 UL 61010-2-201:2018 CAN/CSA-C22.2 No. 61010-2-201:2018	M6A 062386 0096 Rev. 01 <2029-08-22> EU-ESD 044	x	20180309 -E172151	• ATEX KEMA 10ATEX007 5 X • EAC • RoHS • NRTL
EL2911	Z10 062386 0056 Rev. 01 2006/42/EC EN 61508-1:2010 EN 61508-2:2010 EN 61508-3:2010 EN 62061:2021 EN ISO 13849-1:2015 <2027-11-02>	-	M6A 062386 0059 Rev. 01 <2027-11-02>	x	20181116 -E172151	• EAC • RoHS
EL2912	Z10 062386 0062 Rev. 01 2006/42/EC EN 61508-1:2010 EN 61508-2:2010 EN 61508-3:2010 EN IEC 62061:2021 EN ISO 13849-1:2015 <2027-11-03>	-	M6A 062386 0063 Rev. 01 <2027-11-03> EU-ESD 048	x	20181116 -E172151	• EAC • RoHS • NRTL
EL6900	Z10 062386 0044 Rev. 01 2006/42/EC EN 61508-1:2010 EN 61508-2:2010 EN 61508-3:2010 EN ISO 13849-1:2015 EN 13243:2015 DIN EN 61000-6-2:2006 DIN EN 61000-6-4:2007 <2028-05-31>	U8V 062386 0085 Rev. 00 UL 61010-1:2012/ R:2018-11 CAN/CSA-C22-2 No. 61010-1:2012/ A1:2018 UL 61010-2-201:2018 CAN/CSA-C22.2 No. 61010-2-201:2018	M6A 062386 0093 Rev. 00 <2028-06-13>	x	20180309 -E172151	• ATEX KEMA 10ATEX007 5 X • EAC • RoHS • NRTL

Product	TÜV SÜD Z10 / Declaration of Conformity	TÜV SÜD U8	M6A / EU-ESD Type examination certificate	EC	cULus	Further
EL6910	Z10 062386 0034 Rev. 01 EN 61508-1:2010 EN 61508-2:2010 EN 61508-3:2010 EN ISO 13849-1:2015 EN 62061:2021 <2027-12-08>	-	M6A 062386 0043 Rev. 01 <2027-12-08> EU-ESD 045	x	20180309 -E172151	• ATEX KEMA 10ATEX007 5 X • EAC • RoHS
EL6930	Z10 17 10 62386 044 2006/42/EC EN 61508-1:2010 EN 61508-2:2010 EN 61508-3:2010 EN ISO 13849-1:2015 EN 81-20:2014 EN 81-22:2014 EN 81-50:2014 EN 13243:2015 DIN EN 61000-6-2:2006 DIN EN 61000-6-4:2007 <2022-10-15>	-	M6A 17 07 62386 043 <2022-07-27>	x	20180309 -E172151	• ATEX KEMA 10ATEX007 5 X • EAC • RoHS

2.3.3 EP

Product	TÜV SÜD Z10 / Declaration of Conformity	TÜV SÜD U8	M6A / EU-ESD Type examination certificate	EC	cULus	Further
EP1908	Z10 17 10 62386 046 2006/42/EC EN 61508-1:2010 EN 61508-2:2010 EN 61508-3:2010 EN ISO 13849-1:2015 <2022-10-19>	-	M6A 17 07 62386 041 <2022-07-27>	x	20171127 -E172151	• c*UR*us Note on the product (Class 2 power supply or 4 A fuse) • NRTL • RoHS
EP1918	Z10 062386 0075 Rev. 01 2006/42/EC EN 61508-1:2010 EN 61508-2:2010 EN 61508-3:2010 EN 62061:2021 EN ISO 13849-1:2015 <2027-11-02>	U8V 062386 0071 Rev. 00 UL 61010-1:2012/ R:2018-11 UL 61010-2-201:2018 CAN/CSA-C22.2 No. 61010-1:2012 / A1:2018-11 CAN/CSA-C22.2 No. 61010-2-201:2018	M6A 062386 0076 Rev. 01 <2027-11-02>	x	Reference File E172151 Vol. D2	• c*UR*us Note on the product (Class 2 power supply or 4 A fuse) • NRTL • RoHS

Product	TÜV SÜD Z10 / Declaration of Conformity	TÜV SÜD U8	M6A / EU-ESD Type examination certificate	EC	cULus	Further
EP1957	Z10 062386 0057 Rev. 01 2006/42/EC EN 61508-1:2010 EN 61508-2:2010 EN 61508-3:2010 EN 62061:2021 EN ISO 13849-1:2015 <2027-11-08>	-	M6A 062386 0058 Rev. 00 <2027-11-08>	x	20171127 -E172151	• c*UR*us Note on the product (Class 2 power supply or 4 A fuse) • NRTL • RoHS
EP2918	Z10 062386 0067 Rev. 01 2006/42/EC EN 61508-1:2010 EN 61508-2:2010 EN 61508-3:2010 EN 62061:2021 EN ISO 13849-1:2015 <2027-11-08>	U8V 062386 0069 Rev. 00 UL 61010-1:2012/ R:2018-11 UL 61010-2-201:2018 CAN/CSA-C22.2 No. 61010-1:2012 / A1:2018-11 CAN/CSA-C22.2 No. 61010-2-201:2018	M6A 062386 0068 Rev. 01 <2027-11-08>	x	-	• c*UR*us Note on the product (Class 2 power supply or 4 A fuse) • NRTL

2.3.4 EK

Product	TÜV SÜD Z10 / Declaration of Conformity	TÜV SÜD U8	M6A / EU-ESD Type examination certificate	EC	cULus	Further
EK1914	Z10 062386 0045 Rev. 01 EN ISO 13849-1:2015 <2028-08-23>	-	M6A 062386 0040 Rev. 01 <2028-08-23>	x	20180309 -E172151	-
EK1960	Z10 17 04 62386 036 EN ISO 13849-1:2015 EN 61508-1:2010 EN 61508-2:2010 EN 61508-3:2010 EN 61508-4:2010 EN 62061:2005/ A2:2015 <2022-04-20>	-	M6A 17 07 62386 039 <2022-07-04>	x	20180309 -E172151	c*UR*us

2.3.5 EJ

Product	TÜV SÜD Z10 / Declaration of Conformity	TÜV SÜD U8	M6A / EU-ESD Type examination certificate	EC	cULus	Further
EJ6910	Z10 062386 0034 Rev. 01 EN 61508-1:2010 EN 61508-2:2010 EN 61508-3:2010 EN ISO 13849-1:2015 EN 62061:2021 <2027-12-08>	-	M6A 062386 0043 Rev. 01 <2027-12-08>	x	NRAQ2.E 172151	c*UR*us (OCD)
EJx9xx and variants without housing	Z10 062386 0037 Rev. 02 EN ISO 13849-1:2023 EN 61508-1:2010 EN 61508-2:2010 EN 61508-3:2010 EN IEC 62061:2021 <2029-10-27>	-	M6A 062386 0042 Rev. 02 <2029-10-27>	-	-	-
EJ1914	Z10 062386 0037 Rev. 02 EN ISO 13849-1:2023 EN 61508-1:2010 EN 61508-2:2010 EN 61508-3:2010 EN IEC 62061:2021 <2029-10-27>	-	M6A 062386 0042 Rev. 02 <2029-10-27>	x	NRAQ2.E 172151	c*UR*us (OCD)
EJ1918	Z10 062386 0037 Rev. 02 EN ISO 13849-1:2023 EN 61508-1:2010 EN 61508-2:2010 EN 61508-3:2010 EN IEC 62061:2021 <2029-10-27>	-	M6A 062386 0042 Rev. 02 <2029-10-27>	x	NRAQ2.E 172151	c*UR*us (OCD)
EJ1957	Z10 062386 0037 Rev. 02 EN ISO 13849-1:2023 EN 61508-1:2010 EN 61508-2:2010 EN 61508-3:2010 EN IEC 62061:2021 <2029-10-27>	-	M6A 062386 0042 Rev. 02 <2029-10-27>	x	NRAQ2.E 172151	c*UR*us (OCD)
EJ2914	Z10 062386 0037 Rev. 02 EN ISO 13849-1:2023 EN 61508-1:2010 EN 61508-2:2010 EN 61508-3:2010 EN IEC 62061:2021 <2029-10-27>	-	M6A 062386 0042 Rev. 02 <2029-10-27>	x	NRAQ2.E 172151	c*UR*us (OCD)

Product	TÜV SÜD Z10 / Declaration of Conformity	TÜV SÜD U8	M6A / EU-ESD Type examination certificate	EC	cULus	Further
EJ2918	Z10 062386 0037 Rev. 02 EN ISO 13849-1:2023 EN 61508-1:2010 EN 61508-2:2010 EN 61508-3:2010 EN IEC 62061:2021 <2029-10-27>	-	M6A 062386 0042 Rev. 02 <2029-10-27>	x	NRAQ2.E 172151	c*UR*us (OCD)

2.3.6 AMI

Product	TÜV SÜD Z10 / Declaration of Conformity	TÜV SÜD U8	M6A / EU-ESD Type examination certificate	EC	cULus	Further
AMI8911	Z10 062386 0086 Rev. 00 EN 61508-1:2010 EN 61508-2:2010 EN 61508-3:2010 IEC 62061:2021 EN ISO 13849-1:2015 EN 61800-5-2:2017 <2026-08-12>	-	M6A 062386 0087 Rev. 00 <2026-08-25>	-	-	-

2.3.7 AMP

Product	TÜV SÜD Z10 / Declaration of Conformity	TÜV SÜD U8	M6A / EU-ESD Type examination certificate	EC	cULus	Further
AMP8911	Z10 062386 0088 Rev. 00 EN 61508-1:2010 EN 61508-2:2010 EN 61508-3:2010 IEC 62061:2021 EN ISO 13849-1:2015 EN 61800-5-2:2017 <2026-11-03>	-	M6A 062386 0089 Rev. 00 <2026-12-02>	-	-	-

2.3.8 AX

Product	TÜV SÜD Z10 / Declaration of Conformity	TÜV SÜD U8	M6A / EU-ESD Type examination certificate	EC	cULus	Further
AX5801	Z10 062386 0074 Rev. 00 2006/42/EC EN ISO 13849-1:2015 IEC 61508-1:2010 IEC 61508-2:2010 IEC 61508-3:2010 IEC 62061:2005 IEC 62061:2005/ AMD1:2012 IEC 62061:2005/ AMD2:2015 IEC 61800-5-2:2016 <2025-03-23>	-	M6A 062386 0097 Rev. 00 <2025-03-23>	x	20180514 -E195162 Siehe AX5xxx	-
AX5805	Z10 062386 0098 Rev. 00 2006/42/EC EN ISO 13849-1:2015 EN 61508-1:2010 EN 61508-2:2010 EN 61508-3:2010 EN 62061:2021 EN 61800-5-2:2017 <2028-10-23>	-	M6A 062386 0101 Rev. 00 <2028-10-25>	x	20180514 -E195162 Siehe AX5xxx	-
AX5806	Z10 062386 0098 Rev. 00 2006/42/EC EN ISO 13849-1:2015 EN 61508-1:2010 EN 61508-2:2010 EN 61508-3:2010 EN 62061:2021 EN 61800-5-2:2017 <2028-10-23>	-	M6A 062386 0101 Rev. 00 <2028-10-25>	x	20180514 -E195162 Siehe AX5xxx	-
AX8911	Z10 062386 0064 Rev. 02 IEC 61508-1:2010 IEC 61508-2:2010 IEC 61508-3:2010 IEC 62061:2021 EN ISO 13849-1:2015 IEC 61800-5-2:2016 <2027-12-06>	-	M6A 062386 0081 Rev. 01 <2027-12-06>	x	20160608 -E195162 Siehe AX8xxx	-

2.3.9 ELM

Product	TÜV SÜD Z10 / Declaration of Conformity	TÜV SÜD U8	M6A / EU-ESD Type examination certificate	EC	cULus	Further
ELM8911	Z10 062386 0099 Rev. 00 EN 61508-1:2010 EN 61508-2:2010 EN 61508-3:2010 IEC 62061:2021 EN ISO 13849-1:2023 EN 61800-5-2:2017 <2028-10-26>	-	M6A 062386 0100 Rev. 00 <2028-10-26>	-	-	-

2.3.10 Software

Product	TÜV SÜD Z10 / Declaration of Conformity	TÜV SÜD U8	M6A / EU-ESD Type examination certificate	EC	cULus	Further
TwinSAFE Loader	EN 61508:2010 (classified as T2 tool)	n.a.	n.a.	n.a.	n.a.	
TwinSAFE User	EN 61508:2010 (classified as T1 tool)	n.a.	n.a.	n.a.	n.a.	
TwinCAT Safety PLC	Z10 16 12 62386 035 EN ISO 13849-1:2015 IEC 61508-1 (ed.2) IEC 61508-2 (ed.2) IEC 61508-3 (ed.2) IEC 61508-4 (ed.2) <2021-12-08>	n.a.	n.a.	n.a.	n.a.	

2.3.11 Miscellaneous

Product	TÜV SÜD Z10 / Declaration of Conformity	TÜV SÜD U8	M6A / EU-ESD Type examination certificate	EC	cULus	Further
TwinSAFE Application Guide	EN ISO 13849-1:2015 EN 61508:2010	n.a.	n.a.	n.a.	n.a.	
Safety-over-EtherCAT (FSoE)	Z10 18 04 62386 053 IEC 61508-1:2010 IEC 61508-2:2010 IEC 61508-3:2010 IEC 61508-4:2010 IEC 61783-3:2016 <2023-04-16>	n.a.	n.a.	n.a.	n.a.	

3 TÜV Certificates und EC Declarations of Conformity

This document contains the public documents for the certification of the corresponding products. Further or more in-depth information and documents are typically not published.

The following chapters list the certificates relevant for the respective product, such as Z10 and M6A certificates from TÜV SÜD, the EC declarations of conformity and other certificates, such as UL certificates.

3.1 KL1904

On the next pages you will find an overview of the current certificates for the KL1904 TwinSAFE component.

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

Product Service

CERTIFICATE

No. Z10 062386 0061 Rev. 02

Holder of Certificate: **Beckhoff Automation GmbH & Co. KG**
Hülshorstweg 20
33415 Verl
GERMANY

Certification Mark:

Product: **Safety components**

Model(s): **KL1904**

Parameters:

Safety integrity level	up to SIL 3
Category	Cat. 4
Performance level	PL e

Tested according to:
2006/42/EC
EN 61508-1:2010
EN 61508-2:2010
EN 61508-3:2010
EN ISO 13849-1:2023
EN IEC 62061:2021

The product was tested on a voluntary basis and complies with the essential requirements. The certification mark shown above can be affixed on the product. It is not permitted to alter the certification mark in any way. In addition the certification holder must not transfer the certificate to third parties. This certificate is valid until the listed date, unless it is cancelled earlier. All applicable requirements of the Testing, Certification, Validation and Verification Regulations of TÜV SÜD Group have to be complied. For details see: www.tuvsud.com/ps-cert

Test report no.: BV102742C

Valid until: 2029-07-30

Date, 2024-08-29

(Christian Dirmeier)

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Fig. 1: KL1904 - Z10 "Functional Safety" certificate

ZERTIFIKAT • CERTIFICATE • 認証証書 • СЕРТИФИКАТ • CERTIFICADO • CERTIFICAT

TÜV SÜD America

CERTIFICATE

No. U8 07 04 62386 001

Holder of Certificate: **BECKHOFF Automation GmbH**
Eiserstraße 5
33415 Verl
GERMANY

Production Facility(ies): 62386

Certification Mark: TÜV PRODUCT SERVICE NRTL C US

Product: **Controller (TwinSAFE)**

Model(s): **KL1904, KL2904, KL6904**

Parameters:

Supply voltage:	24 V DC
Power dissipation:	540 mW (KL1904), 2 W (KL2904; KL6904)

Tested according to:
UL 508:1999
CAN/CSA-C22.2 No. 142-M1987
UL 1998:1998
UL 991:2004

The product was voluntarily tested according to the relevant safety requirements and mentioned properties. It can be marked with the certification mark shown above. The certification mark must not be altered in any way. See also notes overleaf.

Test report no.: 028-71317113-000

Date, 2007-04-11

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TÜV SÜD 282619

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Fig. 2: KL1904 - U8 NRTL Certificate

ZERTIFIKAT ◆ CERTIFICATE ◆ 認証証書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

Product Service

EC-Type Examination Certificate

No. M6A 18 01 62386 047

Holder of Certificate: **Beckhoff Automation GmbH & Co. KG**
Hülshorstweg 20
33415 Verl
GERMANY

Product: **Safety components**

Model(s): **KL 1904, EL 1904**

Parameters:

Supply voltage:	24VDC (-15%/+20%)
Power dissipation:	540mW
Protection class:	IP 20

This EC Type Examination Certificate is issued according to Article 12(3) b or 12(4) a of Council Directive 2006/42/EC relating to machinery. It confirms that the listed Annex-IV equipment complies with the principal protection requirements of the directive. It refers only to the sample submitted to TÜV SÜD Product Service GmbH for testing and certification. See also notes overleaf.

Test report no.: BV82168T

Valid until: 2023-01-25

737040

Date, 2018-01-26 (Guido Neumann)

TÜV SÜD Product Service GmbH is Notified Body according to Council Directive 2006/42/EC relating to machinery, notified by publication in the Official Journal of the EC with identification No. 0123.

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A1 / 04.11

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Fig. 3: KL1904 – M6A EC type examination certificate

BECKHOFF New Automation Technology

Originalerklärung
Original declaration

EG-Konformitätserklärung

EC Declaration of Conformity

Nummer: 2013020KL1904-1, Datum: 03.06.2016
Number, Date

Hersteller *Manufacturer*	**Beckhoff Automation GmbH & Co. KG** Hülshorstweg 20, 33415 Verl, Germany
erklärt, dass das Produkt *declares that the product*	**TwinSAFE KL1904** 4-Kanal-Digital-Eingangsklemme, TwinSAFE, 24V DC *4-Channel-Digital-Input-Terminal, TwinSAFE, 24V DC*

Sicherheitsbauteil nach EG-Richtlinie 2006/42/EG, Anhang IV
safety component according to EC directive 2006/42/EC, annex IV

den einschlägigen Bestimmungen der Maschinenrichtlinie 2006/42/EG entspricht.
complies with the relevant requirements of the machinery directive 2006/42/EC.

Angewandte Normen
Applied Standards

EN 62061:2005+A1:2013	**Sicherheit von Maschinen – Funktionale Sicherheit sicherheitsbezogener elektrischer, elektronischer und programmierbarer elektronischer Steuerungssysteme** *Safety of machinery – Functional safety of safety-related electrical, electronic and programmable electronic control systems*
EN61131-2:2007	**Speicherprogrammierbare Steuerungen - Teil 2: Betriebsmittelanforderungen und Prüfungen** *Industrial-process control systems - Instruments with analogue inputs and two- or multi-state outputs - Part 2: Guidance for inspection and routine testing*
EN 50581:2012	**Technische Dokumentation zur Beurteilung von Elektro- und Elektronikgeräten hinsichtlich der Beschränkung gefährlicher Stoffe** *Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances*
EN ISO 13849-1:2008	**Sicherheit von Maschinen – Sicherheitsbezogene Teile von Steuerungen** *Safety of machinery – Safety-related parts of control systems*
EN 61000-6-2:2011	**Elektromagnetische Verträglichkeit (EMV) – Störfestigkeit für Industriebereiche** *Electromagnetic compatibility (EMC) – Immunity for industrial environments*
EN 61000-6-4:2011	**Elektromagnetische Verträglichkeit (EMV) - Störaussendung für Industriebereiche** *Electromagnetic compatibility (EMC) - Emission standard for industrial environments*

Die Übereinstimmung eines Baumusters des bezeichneten Produkts mit der EG-Richtline wurde bescheinigt von
The accordance of a production sample of the designated product with the EC directive is certified by

Benannte Stelle *Notified body*	**TÜV SÜD Product Service GmbH** Ridlerstraße 65, 80339 München, Germany
EG-Baumusterprüfbescheinigung *EC-type examination certificate*	**M6A 13 03 62386 020, 2013-04-02**

Verantwortlich für die Zusammenstellung der technischen Unterlagen
Responsible for the compilation of technical documentation

Bevollmächtigter *Authorised person*	**Beckhoff Automation GmbH & Co. KG** Hülshorstweg 20, 33415 Verl, Germany

Verl, 03.06.2016

Dipl.-Phys. Hans Beckhoff

Geschäftsführer Beckhoff Automation GmbH & Co. KG
CEO Beckhoff Automation GmbH & Co. KG

Fig. 4: KL1904 – EC declaration of conformity

CERTIFICATE OF COMPLIANCE

Certificate Number 20160406-E172151
Report Reference E172151-20011211
Issue Date 2016-APRIL-06

Bus Supply Module	KL9400, KL9505, KL9508, KL9510, KL9512, KL9515, KL9560, KS9400, KS9505, KS9508, KS9510, KS9512, KS9515, KS9560
Digital Input Module	KL1002, KL1012, KL1032, KL1052, KL1104, KL1114, KL1124, KL1154, KL1164, KL1184, KL1194, KL1202, KL1212, KL1232, KL1302, KL1304, KL1312, KL1314, KL1352, KL1362, KL1382, KL1402, KL1404, KL1408, KL1412, KL1414, KL1418, KL1434, KL1488, KL1498 KS1002, KS1012, KS1032, KS1052, KS1104, KS1114, KS1124, KS1154, KS1164, KS1184, KS1194, KS1212, KS1232, KS1302, KS1304, KS1312, KS1314, KS1352, KS1362, KS1382, KS1404, KS1408, KS1412, KS1414, KS1418, KS1434, KS1488, KS1498
Counter Module	KL1501, KL1512 KS1501, KS1512
Switch module	KM1644
Digital Input Module	KL1712, KL1712-0060 KL1722, KL9150, KL9160, KS1712, KS1722, KS9150, KS9160
Digital Input Module	KL1704, KL1702, KS1702
	KL1904
	KL1908

Bruce Mahrenholz, Director North American Certification Program

UL LLC

Any information and documentation involving UL Mark services are provided on behalf of UL LLC (UL) or any authorized licensee of UL. For questions, please contact a local UL Customer Service Representative at http://ul.com/aboutul/locations/

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Fig. 5: KL1904 - UL certificate, page 3

CERTIFICATE

Type Examination

(1) Type Examination

(2) **Product intended for use in potentially explosive atmospheres - Directive 2014/34/EU**

(3) Type Examination Certificate Number: **KEMA 10ATEX0075 X** Issue Number: **10**

(4) Product: **Fieldbus Components Type BK ..., Type BC ..., Type KL ..., Type KS ..., Type EK ..., Type EKM ..., Type EL ... and Type ES ...**

(5) Manufacturer: **Beckhoff Automation GmbH & Co. KG**

(6) Address: **Hülshorstweg 20, 33415 Verl, Germany**

(7) This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

(8) DEKRA Certification B.V., certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014.

The examination and test results are recorded in confidential test report no. 213305100, issue 10.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 60079-0 : 2012 + A11 : 2013 **EN 60079-15 : 2010**

except in respect of those requirements listed at item 18 of the Schedule.

(10) If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate.

(11) This Type Examination Certificate relates only to the design and construction of the specified product and not to the manufacturing process and its monitoring.

(12) The marking of the product shall include the following:

II 3 G Ex nA IIC T4 Gc or **Ex nA nC IIC T4 Gc**

Date of certification: 9 July 2020

DEKRA Certification B.V.

R. Schuller
Certification Manager

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DEKRA Certification B.V. Meander 1051, 6825 MJ Arnhem P.O. Box 5185, 6802 ED Arnhem The Netherlands
T +31 88 96 83000 F +31 88 96 83100 www.dekra-product-safety.com Registered Arnhem 09085396

Fig. 6: Type KL - ATEX certificate

3.2 KL2904

The following pages provide an overview of the current certificates for the KL2904 TwinSAFE component.

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

Product Service

CERTIFICATE

No. Z10 062386 0060 Rev. 01

Holder of Certificate: **Beckhoff Automation GmbH & Co. KG**
Hülshorstweg 20
33415 Verl
GERMANY

Certification Mark:

Product: **Safety components**

Model(s): **KL2904**

Parameters:

Safety integrity level	up to SIL 3
Category	Cat. 4
Performance level	PL e

Tested according to:
2006/42/EC
EN 61508-1:2010
EN 61508-2:2010
EN 61508-3:2010
EN ISO 13849-1:2023
EN IEC 62061:2021

The product was tested on a voluntary basis and complies with the essential requirements. The certification mark shown above can be affixed on the product. It is not permitted to alter the certification mark in any way. In addition the certification holder must not transfer the certificate to third parties. This certificate is valid until the listed date, unless it is cancelled earlier. All applicable requirements of the Testing, Certification, Validation and Verification Regulations of TÜV SÜD Group have to be complied. For details see: www.tuvsud.com/ps-cert

Test report no.: BV103503C

Valid until: 2029-08-19

Date, 2024-08-21

(Christian Dirmeier)

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Fig. 7: KL2904 – Z10 Functional Safety Certificate

ZERTIFIKAT • CERTIFICATE • 認証証書 • СЕРТИФИКАТ • CERTIFICADO • CERTIFICAT

TÜV SÜD America

CERTIFICATE

No. U8 07 04 62386 001

Holder of Certificate: **BECKHOFF Automation GmbH**
Eiserstraße 5
33415 Verl
GERMANY

Production Facility(ies): 62386

Certification Mark: TÜV PRODUCT SERVICE NRTL C US

Product: **Controller (TwinSAFE)**

Model(s): **KL1904, KL2904, KL6904**

Parameters:

Supply voltage:	24 V DC
Power dissipation:	540 mW (KL1904), 2 W (KL2904; KL6904)

Tested according to:
UL 508:1999
CAN/CSA-C22.2 No. 142-M1987
UL 1998:1998
UL 991:2004

The product was voluntarily tested according to the relevant safety requirements and mentioned properties. It can be marked with the certification mark shown above. The certification mark must not be altered in any way. See also notes overleaf.

Test report no.: 028-71317113-000

Date, 2007-04-11

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Fig. 8: KL2904 – U8 NRTL Certificate

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

Product Service

EC-Type Examination Certificate

No. M6A 062386 0108 Rev. 00

Holder of Certificate: **Beckhoff Automation GmbH & Co. KG**
Hülshorstweg 20
33415 Verl
GERMANY

Product: **Safety components**

Model(s): **KL2904**

Parameters:

Safety integrity level	up to SIL 3
Category	Cat. 4
Performance level	PL e

This EC Type Examination Certificate is issued according to Article 12(3) b or 12(4) a of Council Directive 2006/42/EC relating to machinery. It confirms that the listed Annex-IV equipment complies with the principal protection requirements of the directive. It refers only to the sample submitted to TÜV SÜD Product Service GmbH for testing and certification. For details see: www.tuvsud.com/ps-cert

Test report no.: BV103503C

Valid until: 2029-08-19

Date, 2024-08-21

(Christian Dirmeier)

Page 1 of 1
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Fig. 9: KL2904 – M6A EC-Type Examination Certificate

BECKHOFF New Automation Technology

Originalerklärung
Original declaration

EG-Konformitätserklärung

EC Declaration of Conformity

Nummer: 2018048KL2904-2, Datum: 06.02.2018
Number, Date

Hersteller *Manufacturer*	**Beckhoff Automation GmbH & Co. KG** Hülshorstweg 20, 33415 Verl, Germany
erklärt, dass das Produkt *declares that the product*	**TwinSAFE KL2904** 4-Kanal-Digital-Ausgangsklemme, TwinSAFE, 24V DC *4-Channel-Digital-Output-Terminal, TwinSAFE, 24V DC*

Sicherheitsbauteil nach EG-Richtlinie 2006/42/EG, Anhang IV
safety component according to EC directive 2006/42/EC, annex IV

den einschlägigen Bestimmungen der Maschinenrichtlinie 2006/42/EG entspricht.
complies with the relevant requirements of the machinery directive 2006/42/EC.

Angewandte Normen
Applied Standards

EN 62061:2005+A1:2013	**Sicherheit von Maschinen – Funktionale Sicherheit sicherheitsbezogener elektrischer, elektronischer und programmierbarer elektronischer Steuerungssysteme** *Safety of machinery – Functional safety of safety-related electrical, electronic and programmable electronic control systems*
EN61131-2:2007	**Speicherprogrammierbare Steuerungen - Teil 2: Betriebsmittelanforderungen und Prüfungen** *Industrial-process control systems - Instruments with analogue inputs and two- or multi-state outputs - Part 2: Guidance for inspection and routine testing*
EN 50581:2012	**Technische Dokumentation zur Beurteilung von Elektro- und Elektronikgeräten hinsichtlich der Beschränkung gefährlicher Stoffe** *Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances*
EN ISO 13849-1:2008	**Sicherheit von Maschinen – Sicherheitsbezogene Teile von Steuerungen** *Safety of machinery – Safety-related parts of control systems*
EN 61000-6-2:2006	**Elektromagnetische Verträglichkeit (EMV) – Störfestigkeit für Industriebereiche** *Electromagnetic compatibility (EMC) – Immunity for industrial environments*
EN 61000-6-4:2007	**Elektromagnetische Verträglichkeit (EMV) - Störaussendung für Industriebereiche** *Electromagnetic compatibility (EMC) - Emission standard for industrial environments*

Die Übereinstimmung eines Baumusters des bezeichneten Produkts mit der EG-Richtline wurde bescheinigt von
The accordance of a production sample of the designated product with the EC directive is certified by

Benannte Stelle *Notified body*	**TÜV SÜD Product Service GmbH** Ridlerstraße 65, 80339 München, Germany
EG-Baumusterprüfbescheinigung *EC-type examination certificate*	**M6A 18 01 62386 048, 2018-01-26**

Verantwortlich für die Zusammenstellung der technischen Unterlagen
Responsible for the compilation of technical documentation

Bevollmächtigter *Authorised person*	**Beckhoff Automation GmbH & Co. KG** Hülshorstweg 20, 33415 Verl, Germany

Verl, 06.02.2018

Dipl.-Phys. Hans Beckhoff

Geschäftsführer Beckhoff Automation GmbH & Co. KG
CEO Beckhoff Automation GmbH & Co. KG

Fig. 10: KL2904 – EC Declaration of Conformity

CERTIFICATE OF COMPLIANCE

Certificate Number 20160406-E172151
Report Reference E172151-20011211
Issue Date 2016-APRIL-06

Analog Input Module	KL3022, KL3001, KL3002, KL3011, KL3012, KL3021, KL3041, KL3042, KL3044, KL3051, KL3052, KL3054, KL3061, KL3062, KL3064, KL3102, KL3112, KL3122, KL3132, KL3142, KL3152, KL3162, KL3172, KL3182, KL3201, KL3202, KL3204, KL3222, KL3228 KL3302, KL3311, KL3312, KL3314, KL3351, KL3356, KL3361, KL3362, KL3404, KL3408, KL3444, KL3448, KL3454, KL3458, KL3464, KL3468, KS3022, KS3001, KS3002, KS3011, KS3012, KS3021, KS3041, KS3042, KS3044, KS3051, KS3052, KS3054, KS3061, KS3062, KS3064, KS3102, KS3112, KS3122, KS3132, KS3142, KS3152, KS3162, KS3172, KS3182, KS3201, KS3202, KS3204, KS3222, KS3228 KS3302, KS3351, KS3356 KS3404, KS3408, KS3444, KS3448, KS3454, KS3458, KS3464, KS3468
Measurement Modules	KL3403
Digital Output Module	KL2114, KL2012, KL2032, KL2212, KL2134, KL2184, KL2404, KL2408, KS2114, KS2012, KS2032, KS2212, KS2134, KS2184, KS2404, KS2408,
Digital Output Module	KL2124
Digital Output Module	KL2424, KS2424
Digital Output Module	KL2488, KS2488
Digital Output Module (pulse train)	KL2521, KL2521-0024
Digital Output Module	KL2022, KS2022
Digital Output Module	KL2904
Pulse Width Module	KL2502, KS2502

Bruce Mahrenholz, Director North American Certification Program

UL LLC

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Fig. 11: KL2904 – UL Certificate, page 4

CERTIFICATE

Type Examination

(1) Type Examination

(2) **Product intended for use in potentially explosive atmospheres - Directive 2014/34/EU**

(3) Type Examination Certificate Number: **KEMA 10ATEX0075 X** Issue Number: **10**

(4) Product: **Fieldbus Components Type BK ..., Type BC ..., Type KL ..., Type KS ..., Type EK ..., Type EKM ..., Type EL ... and Type ES ...**

(5) Manufacturer: **Beckhoff Automation GmbH & Co. KG**

(6) Address: **Hülshorstweg 20, 33415 Verl, Germany**

(7) This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

(8) DEKRA Certification B.V., certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014.

The examination and test results are recorded in confidential test report no. 213305100, issue 10.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 60079-0 : 2012 + A11 : 2013 **EN 60079-15 : 2010**

except in respect of those requirements listed at item 18 of the Schedule.

(10) If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate.

(11) This Type Examination Certificate relates only to the design and construction of the specified product and not to the manufacturing process and its monitoring.

(12) The marking of the product shall include the following:

II 3 G Ex nA IIC T4 Gc or **Ex nA nC IIC T4 Gc**

Date of certification: 9 July 2020

DEKRA Certification B.V.

R. Schuller
Certification Manager

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DEKRA Certification B.V. Meander 1051, 6825 MJ Arnhem P.O. Box 5185, 6802 ED Arnhem The Netherlands
T +31 88 96 83000 F +31 88 96 83100 www.dekra-product-safety.com Registered Arnhem 09085396

Fig. 12: Type KL – ATEX Certificate

3.3 KL6904

The following pages provide an overview of the current certificates for the KL6904 TwinSAFE component.

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

Product Service

CERTIFICATE

No. Z10 062386 0109 Rev. 00

Holder of Certificate: **Beckhoff Automation GmbH & Co. KG**
Hülshorstweg 20
33415 Verl
GERMANY

Certification Mark:

Product: **Safety components**

Model(s): **KL6904**

Parameters:

Safety integrity level	up to SIL 3
Category	Cat. 4
Performance level	PL e

Tested according to:
2006/42/EC
EN 61508-1:2010
EN 61508-2:2010
EN 61508-3:2010
EN ISO 13849-1:2023
EN IEC 62061:2021

The product was tested on a voluntary basis and complies with the essential requirements. The certification mark shown above can be affixed on the product. It is not permitted to alter the certification mark in any way. In addition the certification holder must not transfer the certificate to third parties. This certificate is valid until the listed date, unless it is cancelled earlier. All applicable requirements of the Testing, Certification, Validation and Verification Regulations of TÜV SÜD Group have to be complied. For details see: www.tuvsud.com/ps-cert

Test report no.: BV103524C

Valid until: 2029-08-21

Date, 2024-08-22

(Christian Dirmeier)

Page 1 of 1
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Fig. 13: KL6904 – Z10 Functional Safety Certificate

ZERTIFIKAT • CERTIFICATE • 認証証書 • СЕРТИФИКАТ • CERTIFICADO • CERTIFICAT

TÜV SÜD America

CERTIFICATE

No. U8 07 04 62386 001

Holder of Certificate: **BECKHOFF Automation GmbH**
Eiserstraße 5
33415 Verl
GERMANY

Production Facility(ies): 62386

Certification Mark: TÜV PRODUCT SERVICE NRTL C US

Product: **Controller (TwinSAFE)**

Model(s): **KL1904, KL2904, KL6904**

Parameters:

Supply voltage:	24 V DC
Power dissipation:	540 mW (KL1904), 2 W (KL2904; KL6904)

Tested according to:
UL 508:1999
CAN/CSA-C22.2 No. 142-M1987
UL 1998:1998
UL 991:2004

The product was voluntarily tested according to the relevant safety requirements and mentioned properties. It can be marked with the certification mark shown above. The certification mark must not be altered in any way. See also notes overleaf.

Test report no.: 028-71317113-000

Date, 2007-04-11

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TÜV SÜD 282619

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Fig. 14: KL6904 – U8 NRTL Certificate

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

TÜV SÜD Product Service

EC-Type Examination Certificate

No. M6A 062386 0110 Rev. 00

Holder of Certificate: **Beckhoff Automation GmbH & Co. KG**
Hülshorstweg 20
33415 Verl
GERMANY

Product: **Safety components**

Model(s): **KL6904**

Parameters:

Safety integrity level	up to SIL 3
Category	Cat. 4
Performance level	PL e

This EC Type Examination Certificate is issued according to Article 12(3) b or 12(4) a of Council Directive 2006/42/EC relating to machinery. It confirms that the listed Annex-IV equipment complies with the principal protection requirements of the directive. It refers only to the sample submitted to TÜV SÜD Product Service GmbH for testing and certification. For details see: www.tuvsud.com/ps-cert

Test report no.: BV103524C

Valid until: 2029-08-21

Date, 2024-08-22

(Christian Dirmeier)

Page 1 of 1
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Fig. 15: KL6904 – M6A EC-Type Examination Certificate

BECKHOFF New Automation Technology

Originalerklärung
Original declaration

EG-Konformitätserklärung

EC Declaration of Conformity

Nummer: 2017043KL6904-2, Datum: 31.07.2017
Number, Date

Hersteller *Manufacturer*	**Beckhoff Automation GmbH & Co. KG** Hülshorstweg 20, 33415 Verl, Germany
erklärt, dass das Produkt *declares that the product*	**TwinSAFE KL6904** TwinSAFE Logik-Busklemme *TwinSAFE logic terminal*

Sicherheitsbauteil nach EG-Richtlinie 2006/42/EG, Anhang IV
safety component according to EC directive 2006/42/EC, annex IV

den einschlägigen Bestimmungen der Maschinenrichtlinie 2006/42/EG entspricht.
complies with the relevant requirements of the machinery directive 2006/42/EC.

Angewandte Normen
Applied Standards

EN 62061:2005+A1:2013	**Sicherheit von Maschinen – Funktionale Sicherheit sicherheitsbezogener elektrischer, elektronischer und programmierbarer elektronischer Steuerungssysteme** *Safety of machinery – Functional safety of safety-related electrical, electronic and programmable electronic control systems*
EN61131-2:2007	**Speicherprogrammierbare Steuerungen - Teil 2: Betriebsmittelanforderungen und Prüfungen** *Industrial-process control systems - Instruments with analogue inputs and two- or multi-state outputs - Part 2: Guidance for inspection and routine testing*
EN 50581:2012	**Technische Dokumentation zur Beurteilung von Elektro- und Elektronikgeräten hinsichtlich der Beschränkung gefährlicher Stoffe** *Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances*
EN ISO 13849-1:2015	**Sicherheit von Maschinen – Sicherheitsbezogene Teile von Steuerungen** *Safety of machinery – Safety-related parts of control systems*
EN 61000-6-2:2011	**Elektromagnetische Verträglichkeit (EMV) – Störfestigkeit für Industriebereiche** *Electromagnetic compatibility (EMC) – Immunity for industrial environments*
EN 61000-6-4:2011	**Elektromagnetische Verträglichkeit (EMV) - Störaussendung für Industriebereiche** *Electromagnetic compatibility (EMC) - Emission standard for industrial environments*

Die Übereinstimmung eines Baumusters des bezeichneten Produkts mit der EG-Richtline wurde bescheinigt von
The accordance of a production sample of the designated product with the EC directive is certified by

Benannte Stelle *Notified body*	**TÜV SÜD Product Service GmbH** Ridlerstraße 65, 80339 München, Germany
EG-Baumusterprüfbescheinigung *EC-type examination certificate*	**M6A 17 07 62386 043, 28.07.2017**

Verantwortlich für die Zusammenstellung der technischen Unterlagen
Responsible for the compilation of technical documentation

Bevollmächtigter *Authorised person*	**Beckhoff Automation GmbH & Co. KG** Hülshorstweg 20, 33415 Verl, Germany

Verl, 31.07.2017

Dipl.-Phys. Hans Beckhoff

Geschäftsführer Beckhoff Automation GmbH & Co. KG
CEO Beckhoff Automation GmbH & Co. KG

Fig. 16: KL6904 – EC Declaration of Conformity

CERTIFICATE OF COMPLIANCE

Certificate Number 20160406-E172151
Report Reference E172151-20011211
Issue Date 2016-APRIL-06

	KL6021, KL6031, KL6041, KL6051, KL6201, KL6211, KL6301, KL6401, KL6511, KL6581, KL6781 KS6001, KS6021, KS6031, KS6041, KS6051
Interface Module	KL6011, KS6011
Interface Module	KL6811, KS6811
Interface Module	KL6771 KS6771
Interface Module	KL6904
Potential distribution/ End Module	KL9010, KL9070 KL9080, KL9180, KL9185, KL9186, KL9187, KL9190, KL9195, KL9540, KL9540-0010, KL9550 KS9180, KS9185, KS9186, KS9187, KS9190, KS9195, KS9540, KS9550
End module	KL9020
Diode array module	KL9300, KL9301, KL9302 KS9300, KS9301, KS9302
Data Exchange Module	KM6551
Pressure measuring module	KM3701, KM3702, KM3712

Bruce Mahrenholz, Director North American Certification Program

UL LLC

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Fig. 17: KL6904 – UL Certificate, page 6

CERTIFICATE

Type Examination

(1) Type Examination

(2) **Product intended for use in potentially explosive atmospheres - Directive 2014/34/EU**

(3) Type Examination Certificate Number: **KEMA 10ATEX0075 X** Issue Number: **10**

(4) Product: **Fieldbus Components Type BK ..., Type BC ..., Type KL ..., Type KS ..., Type EK ..., Type EKM ..., Type EL ... and Type ES ...**

(5) Manufacturer: **Beckhoff Automation GmbH & Co. KG**

(6) Address: **Hülshorstweg 20, 33415 Verl, Germany**

(7) This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

(8) DEKRA Certification B.V., certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014.

The examination and test results are recorded in confidential test report no. 213305100, issue 10.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 60079-0 : 2012 + A11 : 2013 **EN 60079-15 : 2010**

except in respect of those requirements listed at item 18 of the Schedule.

(10) If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate.

(11) This Type Examination Certificate relates only to the design and construction of the specified product and not to the manufacturing process and its monitoring.

(12) The marking of the product shall include the following:

II 3 G Ex nA IIC T4 Gc or **Ex nA nC IIC T4 Gc**

Date of certification: 9 July 2020

DEKRA Certification B.V.

R. Schuller
Certification Manager

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DEKRA Certification B.V. Meander 1051, 6825 MJ Arnhem P.O. Box 5185, 6802 ED Arnhem The Netherlands
T +31 88 96 83000 F +31 88 96 83100 www.dekra-product-safety.com Registered Arnhem 09085396

Fig. 18: Type KL – ATEX Certificate

3.4 EL1904

The next pages provide an overview of the current certificates for the EL1904 TwinSAFE component.

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

Product Service

CERTIFICATE

No. Z10 062386 0111 Rev. 00

Holder of Certificate: **Beckhoff Automation GmbH & Co. KG**
Hülshorstweg 20
33415 Verl
GERMANY

Certification Mark:

Product: **Safety components**

Model(s): **EL1904**

Parameters:

Safety integrity level	up to SIL 3
Category	Cat. 4
Performance level	PL e

Tested according to:
2006/42/EC
EN 61508-1:2010
EN 61508-2:2010
EN 61508-3:2010
EN ISO 13849-1:2023
EN IEC 62061:2021

The product was tested on a voluntary basis and complies with the essential requirements. The certification mark shown above can be affixed on the product. It is not permitted to alter the certification mark in any way. In addition the certification holder must not transfer the certificate to third parties. This certificate is valid until the listed date, unless it is cancelled earlier. All applicable requirements of the Testing, Certification, Validation and Verification Regulations of TÜV SÜD Group have to be complied. For details see: www.tuvsud.com/ps-cert

Test report no.: BV103531C

Valid until: 2029-07-30

Date, 2024-08-26

(Christian Dirmeier)

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Fig. 19: EL1904 - Z10 "Functional Safety" certificate

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

America

CERTIFICATE

No. U8V 062386 0085 Rev. 00

Holder of Certificate: **Beckhoff Automation GmbH & Co. KG**
Hülshorstweg 20
33415 Verl
GERMANY

Certification Mark:

C US

Product: **Programmable Controller**

This product was voluntarily tested to the relevant safety requirements referenced on this certificate. It can be marked with the certification mark above. The mark must not be altered in any way. This product certification system operated by TÜV SÜD America Inc. most closely resembles system 3 as defined in ISO/IEC 17067. Certification is based on the TÜV SÜD "Testing and Certification Regulations". TÜV SÜD America Inc. is an OSHA recognized NRTL and a Standards Council of Canada accredited Certification body.

Test report no.: 713197340

Date, 2021-05-11

(Susanne Dormann)

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Fig. 20: EL1904 - U8V NRTL certificate, page 1

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

America

CERTIFICATE

No. U8V 062386 0085 Rev. 00

Model(s): **EL1904**
EL2904
EL6900

Tested according to:
UL 61010-1:2012/R:2018-11
CAN/CSA-C22.2 No. 61010-1:2012/A1:2018
UL 61010-2-201:2018
CAN/CSA-C22.2 No. 61010-2-201:2018

Parameters:

EL1904

Rated voltage:	24 V
Rated frequency:	dc
Rated current:	10 A current load on Bus Coupler power consumption max 200 mA
Environmental Conditions:	55°C, IP20

EL2904

Rated voltage:	24 V
Rated frequency:	dc
Rated current:	10 A current load on Bus Coupler power consumption max 188 mA
Environmental Conditions:	55°C, IP20
Outputs:	4 outputs, 24 Vdc, 0.5 A each output

EL6900

Rated voltage:	24 V
Rated frequency:	dc
Rated current:	10 A current load on Bus Coupler power consumption max 221 mA
Environmental Conditions:	55°C, IP20

When installing all requirements of mentioned test specification(s) and conditions of acceptability must be fulfilled.

- ***These modules shall be used with the Beckhoff Bus Terminal system.***
- ***The validation of the EMC requirements shall be evaluated in the end-use***

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Fig. 21: EL1904 - U8V NRTL certificate, page 2

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

TÜV SÜD Product Service

EC-Type Examination Certificate

No. M6A 062386 0112 Rev. 00

Holder of Certificate: **Beckhoff Automation GmbH & Co. KG**
Hülshorstweg 20
33415 Verl
GERMANY

Product: **Safety components**

Model(s): **EL1904**

Parameters:

Safety integrity level	up to SIL 3
Category	Cat. 4
Performance level	PL e

This EC Type Examination Certificate is issued according to Article 12(3) b or 12(4) a of Council Directive 2006/42/EC relating to machinery. It confirms that the listed Annex-IV equipment complies with the principal protection requirements of the directive. It refers only to the sample submitted to TÜV SÜD Product Service GmbH for testing and certification. For details see: www.tuvsud.com/ps-cert

Test report no.: BV103531C

Valid until: 2029-07-30

Date, 2024-08-26

(Christian Dirmeier)

Page 1 of 1
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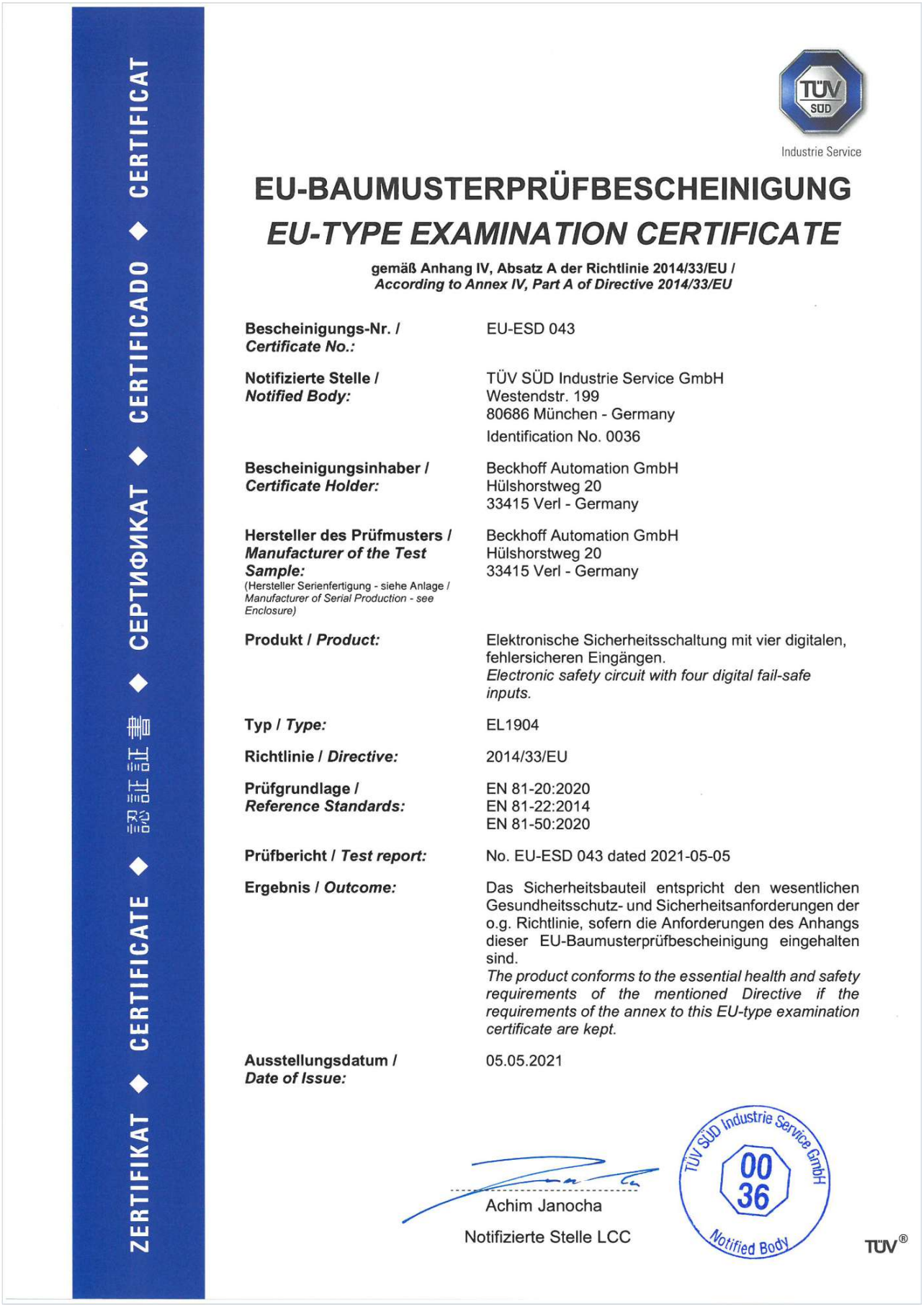
Fig. 22: EL1904 - M6A EC type examination certificate according to directive 2006/42/EC



ZERTIFIKAT ◆ CERTIFICATE ◆ 認証書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

Industrie Service

EU-BAUMUSTERPRÜFBESCHEINIGUNG

EU-TYPE EXAMINATION CERTIFICATE

gemäß Anhang IV, Absatz A der Richtlinie 2014/33/EU /
According to Annex IV, Part A of Directive 2014/33/EU

Bescheinigungs-Nr. / ***Certificate No.:***	EU-ESD 043
Notifizierte Stelle / ***Notified Body:***	TÜV SÜD Industrie Service GmbH Westendstr. 199 80686 München - Germany Identification No. 0036
Bescheinigungsinhaber / ***Certificate Holder:***	Beckhoff Automation GmbH Hülshorstweg 20 33415 Verl - Germany
Hersteller des Prüfmusters / ***Manufacturer of the Test Sample:*** (Hersteller Serienfertigung - siehe Anlage / *Manufacturer of Serial Production - see Enclosure)*	Beckhoff Automation GmbH Hülshorstweg 20 33415 Verl - Germany
Produkt / ***Product:***	Elektronische Sicherheitsschaltung mit vier digitalen, fehlersicheren Eingängen. *Electronic safety circuit with four digital fail-safe inputs.*
Typ / ***Type:***	EL1904
Richtlinie / ***Directive:***	2014/33/EU
Prüfgrundlage / ***Reference Standards:***	EN 81-20:2020 EN 81-22:2014 EN 81-50:2020
Prüfbericht / ***Test report:***	No. EU-ESD 043 dated 2021-05-05
Ergebnis / ***Outcome:***	Das Sicherheitsbauteil entspricht den wesentlichen Gesundheitsschutz- und Sicherheitsanforderungen der o.g. Richtlinie, sofern die Anforderungen des Anhangs dieser EU-Baumusterprüfbescheinigung eingehalten sind. *The product conforms to the essential health and safety requirements of the mentioned Directive if the requirements of the annex to this EU-type examination certificate are kept.*
Ausstellungsdatum / ***Date of Issue:***	05.05.2021

Achim Janocha
Notifizierte Stelle LCC

TÜV SÜD Industrie Service GmbH 00 36 Notified Body

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Fig. 23: EL1904 - EU-ESD EU type examination certificate according to directive 2014/33/EU

BECKHOFF New Automation Technology

Originalerklärung
Original declaration

EG-Konformitätserklärung

EC Declaration of Conformity

Nummer: 2013020EL1904-3, Datum: 06.09.2023
Number, Date

Hersteller *Manufacturer*	**Beckhoff Automation GmbH & Co. KG** Hülshorstweg 20, 33415 Verl, Germany
erklärt, dass das Produkt *declares that the product*	**TwinSAFE EL1904** 4-Kanal-Digital-Eingangsklemme, TwinSAFE, 24 V_{DC} *4-Channel-Digital-Input-Terminal, TwinSAFE, 24 V_{DC}*

den Bestimmungen der folgenden EG-Richtlinien entspricht:
complies with the relevant requirements of the following EC directives:

2006/42/EG *2006/42/EC*	**Richtlinie 2006/42/EG des Europäischen Parlaments und des Rates vom 17. Mai 2006 über Maschinen und zur Änderung der Richtlinie 95/16/EG (Neufassung)** *Directive 2006/42/EC of the European Parliament and of the Council of 17 May 2006 on machinery, and amending Directive 95/16/EC (recast)*
2014/33/EU *2014/33/EU*	**Richtlinie 2014/33/EU des Europäischen Parlaments und des Rates vom 26. Februar 2014 zur Angleichung der Rechtsvorschriften der Mitgliedstaaten über Aufzüge und Sicherheitsbauteile für Aufzüge** *Directive 2014/33/EU of the European Parliament and of the Council of 26 February 2014 on the harmonisation of the laws of the Member States relating to lifts and safety components for lifts*
2014/30/EU *2014/30/EU*	**Richtlinie 2014/30/EU des Europäischen Parlaments und des Rates vom 26. Februar 2014 zur Harmonisierung der Rechtsvorschriften der Mitgliedstaaten über die elektromagnetische Verträglichkeit (Neufassung)** *Directive 2014/30/EU of the European Parliament and of the Council of 26 February 2014 on the harmonisation of the laws of the Member States relating to electromagnetic compatibility (recast)*
2014/34/EU *2014/34/EU*	**Richtlinie 2014/34/EU des Europäischen Parlaments und des Rates vom 26. Februar 2014 zur Harmonisierung der Rechtsvorschriften der Mitgliedstaaten für Geräte und Schutzsysteme zur bestimmungsgemäßen Verwendung in explosionsgefährdeten Bereichen (Neufassung)** *Directive 2014/34/EU of the European Parliament and of the Council of 26 February 2014 on the harmonisation of the laws of the Member States relating to equipment and protective systems intended for use in potentially explosive atmospheres (recast)*
2011/65/EU *2011/65/EU*	**Richtlinie 2011/65/EU des Europäischen Parlaments und des Rates vom 8. Juni 2011 zur Beschränkung der Verwendung bestimmter gefährlicher Stoffe in Elektro- und Elektronikgeräten** *Directive 2011/65/EU of the European Parliament and of the Council of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment (recast)*

Die Konformität mit den Bestimmungen der genannten Richtlinien wird durch Einhaltung der folgenden Normen nachgewiesen:
The conformity with the listed directives is proved by compliance with the following standards:

EN ISO 13849-1:2015	**EN IEC 63000**:2018	**EN 61131-2**:2007	**EN 81-20**:2020
EN 62061:2005/A2:2015	**EN IEC 60079-0**:2018	**EN 61000-6-2**:2011	**EN 81-22**:2014
	EN 60079-15:2010	**EN 61000-6-4**:2011	**EN 81-50**:2020

Die Übereinstimmung eines Baumusters des bezeichneten Produkts mit den EU-Richtlinien wurde bescheinigt von
The accordance of a production sample of the designated product with the EC directives is certified by

Richtlinie *Directive*	**Benannte Stelle** *Notified Body*	**Baumusterprüfbescheinigung** *type examination certificate*
2006/42/EG *2006/42/EC*	**TÜV SÜD Product Service GmbH** Ridlerstraße 65, 80339 München, Germany	**M6A 062386 0095 Rev. 00** 2023-09-01
2014/33/EU *2014/33/EU*	**TÜV SÜD Industrie Service GmbH (NB 0036)** Westendstraße 199, 80686 München, Germany	**EU-ESD 043 + Module C2 Random Check** 2021-05-05
2014/34/EU *2014/34/EU*	**DEKRA Certification B.V.** Meander 1051, 6825 MJ Arnhem, Netherlands	**KEMA 10ATEX0075 X** 2018-06-08

Verantwortlich für die Zusammenstellung der technischen Unterlagen
Responsible for the compilation of technical documentation

Bevollmächtigter
Authorised person

Beckhoff Automation GmbH & Co. KG
Hülshorstweg 20, 33415 Verl, Germany

Verl, 22.9.2023

Ort / Datum
Place / Date

Dipl.-Phys. Hans Beckhoff, Geschäftsführer
Dipl.-Phys. Hans Beckhoff, CEO

Fig. 24: EL1904 – EC declaration of conformity

CERTIFICATE OF COMPLIANCE

Certificate Number 20180309-E172151
Report Reference E172151-20070727
Issue Date 2018-MARCH-09

This is to certify that representative samples of the product as specified on this certificate were tested according to the current UL requirements.

USL and CNL - Open type, Programmable controller, BECKHOFF GmbH

EtherCAT Bus Terminal System, series EK, EL or ES, consisting of the following modules/Cat. Nos.:

Models series ES represent models series EL except for detachable terminals as described in this procedure, e.g. ES1002 represents EL1002, etc.

	Cat. Nos.
BECKHOFF EtherCAT Bus Terminal System	complete system
Bus Coupler	EK1100, EK1100-0008, EK1101
Extension Module	EK1110
Ethercat Junction Module	EK1122, EK1122-0008
Digital Input Module	EL1002, EL1004, EL1008, EL1012, EL1014, EL1018, EL1024, EL1034, EL1084, EL1088, EL1094, EL1098, EL1104, EL1114, EL1134, EL1144, EL1202, EL1252, EL1252-0050, ES1002, ES1004, ES1008, ES1012, ES1014, ES1018, ES1024, ES1034, ES1084, ES1088, ES1094, ES1098, ES1104, ES1134, ES1144, ES1202, ES1252, ES1114
Digital Input Module	EL1124, EL1262, EL1262-0050, ES1124, ES1262
Digital Input Module	EL1502, EL1512, ES1502, ES1512
Digital Input Module	EL1904
Digital Output Module	EL2002, EL2004, EL2008, ES2002, ES2004, ES2008
Digital Output Module	EL2022, EL2024, EL2024-0010, EL2032, EL2034, ES2022, ES2024, ES2032, ES2034
Digital Output Module	EL2084, EL2088, ES2084, ES2088
Digital Output Module	EL2124, ES2124
Digital Output Module (Pulse Train)	EL2521, EL2521-0024, EL2521-0025, EL2521-0124, ES2521
Relay Output Module	EL2602, EL2612, EL2622, ES2602, ES2612, ES2622
Digital Output Module	EL2904, EL2902
Compact controller with digital inputs and digital outputs	EK1960

Bruce Mahrenholz, Director North American Certification Program

UL LLC

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Fig. 25: EL1904 - UL certificate, page 2

CERTIFICATE

Type Examination

(1) Type Examination

(2) **Product intended for use in potentially explosive atmospheres - Directive 2014/34/EU**

(3) Type Examination Certificate Number: **KEMA 10ATEX0075 X** Issue Number: **10**

(4) Product: **Fieldbus Components Type BK ..., Type BC ..., Type KL ..., Type KS ..., Type EK ..., Type EKM ..., Type EL ... and Type ES ...**

(5) Manufacturer: **Beckhoff Automation GmbH & Co. KG**

(6) Address: **Hülshorstweg 20, 33415 Verl, Germany**

(7) This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

(8) DEKRA Certification B.V., certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014.

The examination and test results are recorded in confidential test report no. 213305100, issue 10.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 60079-0 : 2012 + A11 : 2013 **EN 60079-15 : 2010**

except in respect of those requirements listed at item 18 of the Schedule.

(10) If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate.

(11) This Type Examination Certificate relates only to the design and construction of the specified product and not to the manufacturing process and its monitoring.

(12) The marking of the product shall include the following:

II 3 G Ex nA IIC T4 Gc or **Ex nA nC IIC T4 Gc**

Date of certification: 9 July 2020

DEKRA Certification B.V.

R. Schuller
Certification Manager

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DEKRA Certification B.V. Meander 1051, 6825 MJ Arnhem P.O. Box 5185, 6802 ED Arnhem The Netherlands
T +31 88 96 83000 F +31 88 96 83100 www.dekra-product-safety.com Registered Arnhem 09085396

Fig. 26: Type EL - ATEX certificate

3.5 EL1918

The next pages provide an overview of the current certificates for the EL1918 TwinSAFE component.

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

Product Service

CERTIFICATE

No. Z10 062386 0054 Rev. 02

Holder of Certificate: **Beckhoff Automation GmbH & Co. KG**
Hülshorstweg 20
33415 Verl
GERMANY

Certification Mark:

Product: **Safety components**

Model(s): **EL1918**

Parameters:
Supply voltage: 24VDC (-15%/+20%)
Ambient temperature: -25°C...+55°C
Protection class: IP20

Tested according to:
2006/42/EC
EN 61508-1:2010 (SIL1-3)
EN 61508-2:2010 (SIL1-3)
EN 61508-3:2010 (SIL1-3)
EN 62061:2021 (max. SIL 3)
EN ISO 13849-1:2015 (Cat 4, PL e)

The product was tested on a voluntary basis and complies with the essential requirements. The certification mark shown above can be affixed on the product. It is not permitted to alter the certification mark in any way. In addition the certification holder must not transfer the certificate to third parties. This certificate is valid until the listed date, unless it is cancelled earlier. All applicable requirements of the testing and certification regulations of TÜV SÜD Group have to be complied. For details see: www.tuvsud.com/ps-cert

Test report no.: BV99670C

Valid until: 2027-11-02

Date, 2022-11-04

(Peter Weiß)

Page 1 of 1
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Fig. 27: EL1918 - Z10 "Functional Safety" certificate

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

Product Service

EC-Type Examination Certificate

No. M6A 062386 0055 Rev. 01

Holder of Certificate: **Beckhoff Automation GmbH & Co. KG**
Hülshorstweg 20
33415 Verl
GERMANY

Product: **Safety components**

Model(s): **EL1918**

Parameters:

Supply voltage:	24VDC (-15%/+20%)
Ambient temperature:	-25°C...+55°C
Protection class:	IP20

This EC Type Examination Certificate is issued according to Article 12(3) b or 12(4) a of Council Directive 2006/42/EC relating to machinery. It confirms that the listed Annex-IV equipment complies with the principal protection requirements of the directive. It refers only to the sample submitted to TÜV SÜD Product Service GmbH for testing and certification. For details see: www.tuvsud.com/ps-cert

Test report no.: BV99670C

Valid until: 2027-11-02

Date, 2022-11-04

(Peter Weiß)

Page 1 of 1
TÜV SÜD Product Service GmbH is Notified Body according to Council Directive 2006/42/EC relating to machinery, notified by publication in the Offical Journal of the EC with identification No.0123.

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Fig. 28: EL1918 - M6A EC type examination certificate according to directive 2006/42/EC

ZERTIFIKAT ◆ CERTIFICATE ◆ 認証証書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

TÜV SÜD Industrie Service

EU-BAUMUSTERPRÜFBESCHEINIGUNG

EU-TYPE EXAMINATION CERTIFICATE

gemäß Anhang IV, Absatz A der Richtlinie 2014/33/EU /
According to Annex IV, Part A of Directive 2014/33/EU

Bescheinigungs-Nr. / ***Certificate No.:***	EU-ESD 047
Notifizierte Stelle / ***Notified Body:***	TÜV SÜD Industrie Service GmbH Westendstr. 199 80686 München - Germany Identification No. 0036
Bescheinigungsinhaber / ***Certificate Holder:***	Beckhoff Automation GmbH Hülshorstweg 20 33415 Verl - Germany
Hersteller des Prüfmusters / ***Manufacturer of the Test Sample:*** (Hersteller Serienfertigung - siehe Anlage / *Manufacturer of Serial Production - see Enclosure)*	Beckhoff Automation GmbH Hülshorstweg 20 33415 Verl - Germany
Produkt / ***Product:***	Elektronische Sicherheitsschaltung mit acht digitalen, fehlersicheren Eingängen. *Electronic safety circuit with eight digital fail-safe inputs.*
Typ / ***Type:***	EL1918
Richtlinie / ***Directive:***	2014/33/EU
Prüfgrundlage / ***Reference Standards:***	EN 81-20:2020 EN 81-22:2014 EN 81-50:2020
Prüfbericht / ***Test report:***	No. EU-ESD 047 dated 2021-06-25
Ergebnis / ***Outcome:***	Das Sicherheitsbauteil entspricht den wesentlichen Gesundheitsschutz- und Sicherheitsanforderungen der o.g. Richtlinie, sofern die Anforderungen des Anhangs dieser EU-Baumusterprüfbescheinigung eingehalten sind. *The product conforms to the essential health and safety requirements of the mentioned Directive if the requirements of the annex to this EU-type examination certificate are kept.*
Ausstellungsdatum / ***Date of Issue:***	12.07.2021

TÜV SÜD Industrie Service GmbH 00 36 Notified Body

Achim Janocha
Notifizierte Stelle LCC

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Fig. 29: EL1918 - EU-ESD EU type examination certificate according to directive 2014/33/EU

BECKHOFF New Automation Technology

Originalerklärung
Original declaration

EG-Konformitätserklärung

EC Declaration of Conformity

Nummer: 20180055EL1918-3, Datum: 09.11.2022
Number, Date

Hersteller *Manufacturer*	**Beckhoff Automation GmbH & Co. KG** Hülshorstweg 20, 33415 Verl, Germany
erklärt, dass das Produkt *declares that the product*	**TwinSAFE EL1918** 8-Kanal-Digital-Eingangsklemme, TwinSAFE, 24V DC *8-Channel-Digital-Input-Terminal, TwinSAFE, 24V DC*

den Bestimmungen der folgenden EG-Richtlinien entspricht:
complies with the relevant requirements of the following EC directives:

2006/42/EG *2006/42/EC*	**Richtlinie 2006/42/EG des Europäischen Parlaments und des Rates vom 17. Mai 2006 über Maschinen und zur Änderung der Richtlinie 95/16/EG (Neufassung)** *Directive 2006/42/EC of the European Parliament and of the Council of 17 May 2006 on machinery, and amending Directive 95/16/EC (recast)*
2011/65/EU *2011/65/EU*	**Richtlinie 2011/65/EU des Europäischen Parlaments und des Rates vom 8. Juni 2011 zur Beschränkung der Verwendung bestimmter gefährlicher Stoffe in Elektro- und Elektronikgeräten** *Directive 2011/65/EU of the European Parliament and of the Council of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment (recast)*
2014/30/EU *2014/30/EU*	**Richtlinie 2014/30/EU des Europäischen Parlaments und des Rates vom 26. Februar 2014 zur Harmonisierung der Rechtsvorschriften der Mitgliedstaaten über die elektromagnetische Verträglichkeit (Neufassung)** *Directive 2014/30/EU of the European Parliament and of the Council of 26 February 2014 on the harmonisation of the laws of the Member States relating to electromagnetic compatibility (recast)*
2014/33/EU *2014/33/EU*	**Richtlinie 2014/33/EU des Europäischen Parlaments und des Rates vom 26. Februar 2014 zur Angleichung der Rechtsvorschriften der Mitgliedstaaten über Aufzüge und Sicherheitsbauteile für Aufzüge** *Directive 2014/33/EU of the European Parliament and of the Council of 26 February 2014 on the harmonisation of the laws of the Member States relating to lifts and safety components for lifts*
2014/34/EU *2014/34/EU*	**Richtlinie 2014/34/EU des Europäischen Parlaments und des Rates vom 26. Februar 2014 zur Harmonisierung der Rechtsvorschriften der Mitgliedstaaten für Geräte und Schutzsysteme zur bestimmungsgemäßen Verwendung in explosionsgefährdeten Bereichen (Neufassung)** *Directive 2014/34/EU of the European Parliament and of the Council of 26 February 2014 on the harmonisation of the laws of the Member States relating to equipment and protective systems intended for use in potentially explosive atmospheres (recast)*

Die Konformität mit den Bestimmungen der genannten Richtlinien wird durch Einhaltung der folgenden Normen nachgewiesen:
The conformity with the listed directives is proved by compliance with the following standards:

EN ISO 13849-1:2015	**EN IEC 63000**:2018	**EN 61000-6-2**:2005	**EN 81-20**:2020
EN 62061:2005/A2:2015	**EN IEC 60079-0**:2018	**EN 61000-6-4**:2007	**EN 81-22**:2014
	EN 60079-15:2010	**EN 61131-2**:2007	**EN 81-50**:2020

Die Übereinstimmung eines Baumusters des bezeichneten Produkts mit den EU-Richtlinien wurde bescheinigt von
The accordance of a production sample of the designated product with the EC directives is certified by

Richtlinie *Directive*	**Benannte Stelle** *Notified Body*	**Baumusterprüfbescheinigung** *type examination certificate*
2006/42/EG *2006/42/EC*	**TÜV SÜD Product Service GmbH** Ridlerstraße 65, 80339 München, Germany	**M6A 062386 0055 Rev. 01** 2022-11-02
2014/33/EU *2014/33/EU*	**TÜV SÜD Industrie Service GmbH** Westendstraße 199, 80686 München, Germany	**EU-ESD 047** 2021-07-12
2014/34/EU *2014/34/EU*	**DEKRA Certification B.V.** Meander 1051, 6825 MJ Arnhem, Netherlands	**KEMA 10ATEX0075 X** 2020-07-09

Verantwortlich für die Zusammenstellung der technischen Unterlagen
Responsible for the compilation of technical documentation

Bevollmächtigter
Authorised person

Beckhoff Automation GmbH & Co. KG
Hülshorstweg 20, 33415 Verl, Germany

Verl, 22.12.2022

Ort / Datum
Place / Date

Dipl.-Phys. Hans Beckhoff, Geschäftsführer
Dipl.-Phys. Hans Beckhoff, CEO

Fig. 30: EL1918 – EC declaration of conformity

CERTIFICATE OF COMPLIANCE

Certificate Number 20181116-E172151
Report Reference E172151-20070727
Issue Date 2018-NOVEMBER-16

EtherCAT bridge	EL6692, EL6695
Supply module [eng. note – not for E-bus]	EL9505, EL9508, EL9510, EL9512, EL9515, ES9505, ES9508, ES9510, ES9512, ES9515
Supply module [eng. note – not for E-bus]	EL9560

Fan module	ZB8610
Digital input module	EL1258
Digital input module	EL1382, ES1382
Digital Output Module (Pulse Train)	EL2522
Analog multifunctional input module	EL3751
Encoder interface	EL5021, ES5021, EL5032
Display module with switch	EL6090
Pressure measurements module	EM3701, EM3702, EM3712

Analog input module	ELM3002, ELM3004, ELM3102, ELM3104, ELM3142, ELM3144, ELM3146, ELM3148, ELM3502, ELM3504, ELM3602, ELM3604, ELM3702, ELM3704
End module	ELM9012
Power supply ELX	ELX9560
Digital input ELX	ELX1052, ELX1054
Digital output ELX	ELX2002
Analog input ELX	ELX3152, ELX3181, ELX3202, ELX3204, ELX3312, ELX3314, ELX3351
Analog output ELX	ELX4181
Incremental encoder ELX	ELX5151
Bus end module	ELX9012
EBUS power supply ELX	ELX9410
Digital input module	EL1918
Potential supply terminal	EL2911
Digital output	EL2912

Bruce Mahrenholz, Director North American Certification Program

UL LLC

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Fig. 31: EL1918 - UL certificate, page 5

3.6 EL2904

The next pages provide an overview of the current certificates for the EL2904 TwinSAFE component.

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

Product Service

CERTIFICATE

No. Z10 062386 0107 Rev. 00

Holder of Certificate: **Beckhoff Automation GmbH & Co. KG**
Hülshorstweg 20
33415 Verl
GERMANY

Certification Mark:

Product: **Safety components**

Model(s): **EL2904**

Parameters:

Safety integrity level	up to SIL 3
Category	Cat. 4
Performance level	PL e

Tested according to:
2006/42/EC
EN 61508-1:2010
EN 61508-2:2010
EN 61508-3:2010
EN ISO 13849-1:2023
EN IEC 62061:2021

The product was tested on a voluntary basis and complies with the essential requirements. The certification mark shown above can be affixed on the product. It is not permitted to alter the certification mark in any way. In addition the certification holder must not transfer the certificate to third parties. This certificate is valid until the listed date, unless it is cancelled earlier. All applicable requirements of the Testing, Certification, Validation and Verification Regulations of TÜV SÜD Group have to be complied. For details see: www.tuvsud.com/ps-cert

Test report no.: BV103506C

Valid until: 2029-08-22

Date, 2024-08-23

(Christian Dirmeier)

Page 1 of 1
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Fig. 32: EL2904 - Z10 "Functional Safety" certificate

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

America

CERTIFICATE

No. U8V 062386 0085 Rev. 00

Holder of Certificate: **Beckhoff Automation GmbH & Co. KG**
Hülshorstweg 20
33415 Verl
GERMANY

Certification Mark:

C US

Product: **Programmable Controller**

This product was voluntarily tested to the relevant safety requirements referenced on this certificate. It can be marked with the certification mark above. The mark must not be altered in any way. This product certification system operated by TÜV SÜD America Inc. most closely resembles system 3 as defined in ISO/IEC 17067. Certification is based on the TÜV SÜD "Testing and Certification Regulations". TÜV SÜD America Inc. is an OSHA recognized NRTL and a Standards Council of Canada accredited Certification body.

Test report no.: 713197340

Date, 2021-05-11

(Susanne Dormann)

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Fig. 33: EL2904 - U8V NRTL certificate, page 1

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

America

CERTIFICATE

No. U8V 062386 0085 Rev. 00

Model(s): **EL1904**
EL2904
EL6900

Tested according to:
UL 61010-1:2012/R:2018-11
CAN/CSA-C22.2 No. 61010-1:2012/A1:2018
UL 61010-2-201:2018
CAN/CSA-C22.2 No. 61010-2-201:2018

Parameters:

EL1904

Rated voltage:	24 V
Rated frequency:	dc
Rated current:	10 A current load on Bus Coupler power consumption max 200 mA
Environmental Conditions:	55°C, IP20

EL2904

Rated voltage:	24 V
Rated frequency:	dc
Rated current:	10 A current load on Bus Coupler power consumption max 188 mA
Environmental Conditions:	55°C, IP20
Outputs:	4 outputs, 24 Vdc, 0.5 A each output

EL6900

Rated voltage:	24 V
Rated frequency:	dc
Rated current:	10 A current load on Bus Coupler power consumption max 221 mA
Environmental Conditions:	55°C, IP20

When installing all requirements of mentioned test specification(s) and conditions of acceptability must be fulfilled.

- ***These modules shall be used with the Beckhoff Bus Terminal system.***
- ***The validation of the EMC requirements shall be evaluated in the end-use***

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Fig. 34: EL2904 - U8V NRTL certificate, page 2

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

TÜV SÜD Product Service

EC-Type Examination Certificate

No. M6A 062386 0096 Rev. 01

Holder of Certificate: **Beckhoff Automation GmbH & Co. KG**
Hülshorstweg 20
33415 Verl
GERMANY

Product: **Safety components**

Model(s): **EL2904**

Parameters:

Safety integrity level	up to SIL 3
Category	Cat. 4
Performance level	PL e

This EC Type Examination Certificate is issued according to Article 12(3) b or 12(4) a of Council Directive 2006/42/EC relating to machinery. It confirms that the listed Annex-IV equipment complies with the principal protection requirements of the directive. It refers only to the sample submitted to TÜV SÜD Product Service GmbH for testing and certification. For details see: www.tuvsud.com/ps-cert

Test report no.: BV103506C

Valid until: 2029-08-22

Date, 2024-08-26

(Christian Dirmeier)

Page 1 of 1
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Fig. 35: EL2904 - M6A EC type examination certificate according to directive 2006/42/EC

ZERTIFIKAT ◆ CERTIFICATE ◆ 認証証書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

TÜV SÜD Industrie Service

EU-BAUMUSTERPRÜFBESCHEINIGUNG

EU-TYPE EXAMINATION CERTIFICATE

gemäß Anhang IV, Absatz A der Richtlinie 2014/33/EU /
According to Annex IV, Part A of Directive 2014/33/EU

Bescheinigungs-Nr. / ***Certificate No.:***	EU-ESD 044
Notifizierte Stelle / ***Notified Body:***	TÜV SÜD Industrie Service GmbH Westendstr. 199 80686 München - Germany Identification No. 0036
Bescheinigungsinhaber / ***Certificate Holder:***	Beckhoff Automation GmbH Hülshorstweg 20 33415 Verl - Germany
Hersteller des Prüfmusters / ***Manufacturer of the Test Sample:*** (Hersteller Serienfertigung - siehe Anlage / *Manufacturer of Serial Production - see Enclosure*)	Beckhoff Automation GmbH Hülshorstweg 20 33415 Verl - Germany
Produkt / ***Product:***	Elektronische Sicherheitsschaltung mit vier digitalen, fehlersicheren Ausgängen. *Electronic safety circuit with four digital fail-safe outputs.*
Typ / ***Type:***	EL2904
Richtlinie / ***Directive:***	2014/33/EU
Prüfgrundlage / ***Reference Standards:***	EN 81-20:2020 EN 81-22:2014 EN 81-50:2020
Prüfbericht / ***Test report:***	No. EU-ESD 044 dated 2021-05-06
Ergebnis / ***Outcome:***	Das Sicherheitsbauteil entspricht den wesentlichen Gesundheitsschutz- und Sicherheits-anforderungen der o.g. Richtlinie, sofern die Anforderungen des Anhangs dieser EU-Baumusterprüfbescheinigung eingehalten sind. *The product conforms to the essential health and safety requirements of the mentioned Directive if the requirements of the annex to this EU-type examination certificate are kept.*
Ausstellungsdatum / ***Date of Issue:***	06.05.2021

Achim Janocha
Notifizierte Stelle LCC

TÜV SÜD Industrie Service GmbH 00 36 Notified Body

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Fig. 36: EL2904 - EU-ESD EU type examination certificate according to directive 2014/33/EU

BECKHOFF New Automation Technology

Originalerklärung
Original declaration

EG-Konformitätserklärung

EC Declaration of Conformity

Nummer: 2013019EL2904-3, Datum: 06.09.2023
Number, Date

Hersteller *Manufacturer*	**Beckhoff Automation GmbH & Co. KG** Hülshorstweg 20, 33415 Verl, Germany
erklärt, dass das Produkt *declares that the product*	**TwinSAFE EL2904** 4-Kanal-Digital-Ausgangsklemme, TwinSAFE, 24 V_{DC} *4-Channel-Digital-Output-Terminal, TwinSAFE, 24 V_{DC}*

den Bestimmungen der folgenden EG-Richtlinien entspricht:
complies with the relevant requirements of the following EC directives:

2006/42/EG *2006/42/EC*	**Richtlinie 2006/42/EG des Europäischen Parlaments und des Rates vom 17. Mai 2006 über Maschinen und zur Änderung der Richtlinie 95/16/EG (Neufassung)** *Directive 2006/42/EC of the European Parliament and of the Council of 17 May 2006 on machinery, and amending Directive 95/16/EC (recast)*
2014/33/EU *2014/33/EU*	**Richtlinie 2014/33/EU des Europäischen Parlaments und des Rates vom 26. Februar 2014 zur Angleichung der Rechtsvorschriften der Mitgliedstaaten über Aufzüge und Sicherheitsbauteile für Aufzüge** *Directive 2014/33/EU of the European Parliament and of the Council of 26 February 2014 on the harmonisation of the laws of the Member States relating to lifts and safety components for lifts*
2014/30/EU *2014/30/EU*	**Richtlinie 2014/30/EU des Europäischen Parlaments und des Rates vom 26. Februar 2014 zur Harmonisierung der Rechtsvorschriften der Mitgliedstaaten über die elektromagnetische Verträglichkeit (Neufassung)** *Directive 2014/30/EU of the European Parliament and of the Council of 26 February 2014 on the harmonisation of the laws of the Member States relating to electromagnetic compatibility (recast)*
2014/34/EU *2014/34/EU*	**Richtlinie 2014/34/EU des Europäischen Parlaments und des Rates vom 26. Februar 2014 zur Harmonisierung der Rechtsvorschriften der Mitgliedstaaten für Geräte und Schutzsysteme zur bestimmungsgemäßen Verwendung in explosionsgefährdeten Bereichen (Neufassung)** *Directive 2014/34/EU of the European Parliament and of the Council of 26 February 2014 on the harmonisation of the laws of the Member States relating to equipment and protective systems intended for use in potentially explosive atmospheres (recast)*
2011/65/EU *2011/65/EU*	**Richtlinie 2011/65/EU des Europäischen Parlaments und des Rates vom 8. Juni 2011 zur Beschränkung der Verwendung bestimmter gefährlicher Stoffe in Elektro- und Elektronikgeräten** *Directive 2011/65/EU of the European Parliament and of the Council of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment (recast)*

Die Konformität mit den Bestimmungen der genannten Richtlinien wird durch Einhaltung der folgenden Normen nachgewiesen:
The conformity with the listed directives is proved by compliance with the following standards:

EN ISO 13849-1:2015	**EN IEC 63000**:2018	**EN 61131-2**:2007	**EN 81-20**:2020
EN 62061:2005/A2:2015	**EN IEC 60079-0**:2018	**EN 61000-6-2**:2011	**EN 81-22**:2014
	EN 60079-15:2010	**EN 61000-6-4**:2011	**EN 81-50**:2020

Die Übereinstimmung eines Baumusters des bezeichneten Produkts mit den EU-Richtlinien wurde bescheinigt von
The accordance of a production sample of the designated product with the EC directives is certified by

Richtlinie *Directive*	**Benannte Stelle** *Notified Body*	**Baumusterprüfbescheinigung** *type examination certificate*
2006/42/EG *2006/42/EC*	**TÜV SÜD Product Service GmbH** Ridlerstraße 65, 80339 München, Germany	**M6A 062386 0096 Rev. 00** 2023-09-01
2014/33/EU *2014/33/EU*	**TÜV SÜD Industrie Service GmbH (NB 0036)** Westendstraße 199, 80686 München, Germany	**EU-ESD 044 + Module C2 Random Check** 2021-05-06
2014/34/EU *2014/34/EU*	**DEKRA Certification B.V.** Meander 1051, 6825 MJ Arnhem, Netherlands	**KEMA 10ATEX0075 X** 2018-06-08

Verantwortlich für die Zusammenstellung der technischen Unterlagen
Responsible for the compilation of technical documentation

Bevollmächtigter
Authorised person

Beckhoff Automation GmbH & Co. KG
Hülshorstweg 20, 33415 Verl, Germany

Verl, 22.9.2023

Ort / Datum
Place / Date

Dipl.-Phys. Hans Beckhoff, Geschäftsführer
Dipl.-Phys. Hans Beckhoff, CEO

Fig. 37: EL2904 – EC declaration of conformity

CERTIFICATE OF COMPLIANCE

Certificate Number 20180309-E172151
Report Reference E172151-20070727
Issue Date 2018-MARCH-09

This is to certify that representative samples of the product as specified on this certificate were tested according to the current UL requirements.

USL and CNL - Open type, Programmable controller, BECKHOFF GmbH

EtherCAT Bus Terminal System, series EK, EL or ES, consisting of the following modules/Cat. Nos.:

Models series ES represent models series EL except for detachable terminals as described in this procedure, e.g. ES1002 represents EL1002, etc.

	Cat. Nos.
BECKHOFF EtherCAT Bus Terminal System	complete system
Bus Coupler	EK1100, EK1100-0008, EK1101
Extension Module	EK1110
Ethercat Junction Module	EK1122, EK1122-0008
Digital Input Module	EL1002, EL1004, EL1008, EL1012, EL1014, EL1018, EL1024, EL1034, EL1084, EL1088, EL1094, EL1098, EL1104, EL1114, EL1134, EL1144, EL1202, EL1252, EL1252-0050, ES1002, ES1004, ES1008, ES1012, ES1014, ES1018, ES1024, ES1034, ES1084, ES1088, ES1094, ES1098, ES1104, ES1134, ES1144, ES1202, ES1252, ES1114
Digital Input Module	EL1124, EL1262, EL1262-0050, ES1124, ES1262
Digital Input Module	EL1502, EL1512, ES1502, ES1512
Digital Input Module	EL1904
Digital Output Module	EL2002, EL2004, EL2008, ES2002, ES2004, ES2008
Digital Output Module	EL2022, EL2024, EL2024-0010, EL2032, EL2034, ES2022, ES2024, ES2032, ES2034
Digital Output Module	EL2084, EL2088, ES2084, ES2088
Digital Output Module	EL2124, ES2124
Digital Output Module (Pulse Train)	EL2521, EL2521-0024, EL2521-0025, EL2521-0124, ES2521
Relay Output Module	EL2602, EL2612, EL2622, ES2602, ES2612, ES2622
Digital Output Module	EL2904, EL2902
Compact controller with digital inputs and digital outputs	EK1960

Bruce Mahrenholz, Director North American Certification Program

UL LLC

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Fig. 38: EL2904 - UL certificate, page 2

CERTIFICATE

Type Examination

(1)

(2) **Product intended for use in potentially explosive atmospheres - Directive 2014/34/EU**

(3) Type Examination Certificate Number: **KEMA 10ATEX0075 X** Issue Number: **10**

(4) Product: **Fieldbus Components Type BK ..., Type BC ..., Type KL ..., Type KS ..., Type EK ..., Type EKM ..., Type EL ... and Type ES ...**

(5) Manufacturer: **Beckhoff Automation GmbH & Co. KG**

(6) Address: **Hülshorstweg 20, 33415 Verl, Germany**

(7) This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

(8) DEKRA Certification B.V., certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014.

The examination and test results are recorded in confidential test report no. 213305100, issue 10.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 60079-0 : 2012 + A11 : 2013 **EN 60079-15 : 2010**

except in respect of those requirements listed at item 18 of the Schedule.

(10) If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate.

(11) This Type Examination Certificate relates only to the design and construction of the specified product and not to the manufacturing process and its monitoring.

(12) The marking of the product shall include the following:

II 3 G Ex nA IIC T4 Gc or **Ex nA nC IIC T4 Gc**

Date of certification: 9 July 2020

DEKRA Certification B.V.

R. Schuller
Certification Manager

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DEKRA Certification B.V. Meander 1051, 6825 MJ Arnhem P.O. Box 5185, 6802 ED Arnhem The Netherlands
T +31 88 96 83000 F +31 88 96 83100 www.dekra-product-safety.com Registered Arnhem 09085396

Fig. 39: Type EL - ATEX certificate

3.7 EL2911

The following pages provide an overview of the current certificates for the EL2911 TwinSAFE component.

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

Product Service

CERTIFICATE

No. Z10 062386 0056 Rev. 01

Holder of Certificate: **Beckhoff Automation GmbH & Co. KG**
Hülshorstweg 20
33415 Verl
GERMANY

Certification Mark:

Product: **Safety components**
Model(s): **EL2911**

Parameters:

Supply voltage:	24VDC (-15%/+20%)
Ambient temperature:	-25°C...+55°C
Protection class:	IP20

Tested according to:
2006/42/EC
EN 61508-1:2010 (SIL1-3)
EN 61508-2:2010 (SIL1-3)
EN 61508-3:2010 (SIL1-3)
EN IEC 62061:2021 (maximum SIL 3)
EN ISO 13849-1:2015 (Cat 4, PL e)

The product was tested on a voluntary basis and complies with the essential requirements. The certification mark shown above can be affixed on the product. It is not permitted to alter the certification mark in any way. In addition the certification holder must not transfer the certificate to third parties. This certificate is valid until the listed date, unless it is cancelled earlier. All applicable requirements of the testing and certification regulations of TÜV SÜD Group have to be complied. For details see: www.tuvsud.com/ps-cert

Test report no.: **BV99686C**
Valid until: 2027-11-02

Date, 2022-11-03

(Peter Weiß)

Page 1 of 1
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Fig. 40: EL2911 – Z10 Functional Safety Certificate

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

TÜV SÜD Product Service

EC-Type Examination Certificate

No. M6A 062386 0059 Rev. 01

Holder of Certificate: **Beckhoff Automation GmbH & Co. KG**
Hülshorstweg 20
33415 Verl
GERMANY

Product: **Safety components**
Model(s): **EL2911**

Parameters:

Supply voltage:	24VDC (-15%/+20%)
Ambient temperature:	-25°C...+55°C
Protection class:	IP20

This EC Type Examination Certificate is issued according to Article 12(3) b or 12(4) a of Council Directive 2006/42/EC relating to machinery. It confirms that the listed Annex-IV equipment complies with the principal protection requirements of the directive. It refers only to the sample submitted to TÜV SÜD Product Service GmbH for testing and certification. For details see: www.tuvsud.com/ps-cert

Test report no.: **BV99686C**

Valid until: 2027-11-02

Date, 2022-11-03

(Peter Weiß)

Page 1 of 1
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Fig. 41: EL2911 – M6A EC-Type Examination Certificate

BECKHOFF New Automation Technology

Originalerklärung
Original declaration

EG-Konformitätserklärung

EC Declaration of Conformity

Nummer: 20180059EL2911-2, Datum: 09.11.2022
Number, Date

Hersteller *Manufacturer*	**Beckhoff Automation GmbH & Co. KG** Hülshorstweg 20, 33415 Verl, Germany
erklärt, dass das Produkt *declares that the product*	**TwinSAFE EL2911** TwinSAFE Potentialeinspeiseklemme mit 4 sicheren Eingängen, 24V DC *TwinSAFE potential supply terminal with 4 safe inputs, 24V DC*

den Bestimmungen der folgenden EG-Richtlinien entspricht:
complies with the relevant requirements of the following EC directives:

2006/42/EG *2006/42/EC*	**Richtlinie 2006/42/EG des Europäischen Parlaments und des Rates vom 17. Mai 2006 über Maschinen und zur Änderung der Richtlinie 95/16/EG (Neufassung)** *Directive 2006/42/EC of the European Parliament and of the Council of 17 May 2006 on machinery, and amending Directive 95/16/EC (recast)*
2011/65/EU *2011/65/EU*	**Richtlinie 2011/65/EU des Europäischen Parlaments und des Rates vom 8. Juni 2011 zur Beschränkung der Verwendung bestimmter gefährlicher Stoffe in Elektro- und Elektronikgeräten** *Directive 2011/65/EU of the European Parliament and of the Council of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment (recast)*
2014/30/EU *2014/30/EU*	**Richtlinie 2014/30/EU des Europäischen Parlaments und des Rates vom 26. Februar 2014 zur Harmonisierung der Rechtsvorschriften der Mitgliedstaaten über die elektromagnetische Verträglichkeit (Neufassung)** *Directive 2014/30/EU of the European Parliament and of the Council of 26 February 2014 on the harmonisation of the laws of the Member States relating to electromagnetic compatibility (recast)*

Die Konformität mit den Bestimmungen der genannten Richtlinien wird durch Einhaltung der folgenden Normen nachgewiesen:
The conformity with the listed directives is proved by compliance with the following standards:

EN ISO 13849-1:2015	**EN IEC 63000**:2018	**EN 61000-6-2**:2005
EN 62061:2005/A2:2015		**EN 61000-6-4**:2007
		EN 61131-2:2007

Die Übereinstimmung eines Baumusters des bezeichneten Produkts mit den EU-Richtlinien wurde bescheinigt von
The accordance of a production sample of the designated product with the EC directives is certified by

Richtlinie *Directive*	**Benannte Stelle** *Notified Body*	**Baumusterprüfbescheinigung** *type examination certificate*
2006/42/EG *2006/42/EC*	**TÜV SÜD Product Service GmbH** Ridlerstraße 65, 80339 München, Germany	**M6A 062386 0059 Rev. 01** 2022-11-03

Verantwortlich für die Zusammenstellung der technischen Unterlagen
Responsible for the compilation of technical documentation

Bevollmächtigter
Authorised person

Beckhoff Automation GmbH & Co. KG
Hülshorstweg 20, 33415 Verl, Germany

Verl, 22.11.2022
Ort / Datum
Place / Date

Dipl.-Phys. Hans Beckhoff, Geschäftsführer
Dipl.-Phys. Hans Beckhoff, CEO

Fig. 42: EL2911 – EC Declaration of Conformity

CERTIFICATE OF COMPLIANCE

Certificate Number 20181116-E172151
Report Reference E172151-20070727
Issue Date 2018-NOVEMBER-16

EtherCAT bridge	EL6692, EL6695
Supply module [eng. note – not for E-bus]	EL9505, EL9508, EL9510, EL9512, EL9515, ES9505, ES9508, ES9510, ES9512, ES9515
Supply module [eng. note – not for E-bus]	EL9560

Fan module	ZB8610
Digital input module	EL1258
Digital input module	EL1382, ES1382
Digital Output Module (Pulse Train)	EL2522
Analog multifunctional input module	EL3751
Encoder interface	EL5021, ES5021, EL5032
Display module with switch	EL6090
Pressure measurements module	EM3701, EM3702, EM3712

Analog input module	ELM3002, ELM3004, ELM3102, ELM3104, ELM3142, ELM3144, ELM3146, ELM3148, ELM3502, ELM3504, ELM3602, ELM3604, ELM3702, ELM3704
End module	ELM9012
Power supply ELX	ELX9560
Digital input ELX	ELX1052, ELX1054
Digital output ELX	ELX2002
Analog input ELX	ELX3152, ELX3181, ELX3202, ELX3204, ELX3312, ELX3314, ELX3351
Analog output ELX	ELX4181
Incremental encoder ELX	ELX5151
Bus end module	ELX9012
EBUS power supply ELX	ELX9410
Digital input module	EL1918
Potential supply terminal	EL2911
Digital output	EL2912

Bruce Mahrenholz, Director North American Certification Program

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Fig. 43: EL2911 – UL Certificate, page 5

3.8 EL2912

The following pages provide an overview of the current certificates for the EL2912 TwinSAFE component.

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

Product Service

CERTIFICATE

No. Z10 062386 0062 Rev. 01

Holder of Certificate: **Beckhoff Automation GmbH & Co. KG**
Hülshorstweg 20
33415 Verl
GERMANY

Certification Mark:

Product: **Safety components**
Model(s): **EL2912**

Parameters:

Supply voltage:	24VDC (-15%/+20%)
Ambient temperature:	-25°C...+55°C
Protection class:	IP20

Tested according to:
2006/42/EC
EN 61508-1:2010 (SIL1-3)
EN 61508-2:2010 (SIL1-3)
EN 61508-3:2010 (SIL1-3)
EN IEC 62061:2021 (maximum SIL 3)
EN ISO 13849-1:2015 (Cat 4, PL e)

The product was tested on a voluntary basis and complies with the essential requirements. The certification mark shown above can be affixed on the product. It is not permitted to alter the certification mark in any way. In addition the certification holder must not transfer the certificate to third parties. This certificate is valid until the listed date, unless it is cancelled earlier. All applicable requirements of the testing and certification regulations of TÜV SÜD Group have to be complied. For details see: www.tuvsud.com/ps-cert

Test report no.: BV99690C
Valid until: 2027-11-03

Date, 2022-11-04

(Peter Weiß)

Page 1 of 1
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Fig. 44: EL2912 - Z10 "Functional Safety" certificate

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

TÜV SÜD Product Service

EC-Type Examination Certificate

No. M6A 062386 0063 Rev. 01

Holder of Certificate: **Beckhoff Automation GmbH & Co. KG**
Hülshorstweg 20
33415 Verl
GERMANY

Product: **Safety components**
Model(s): **EL2912**

Parameters:

Supply voltage:	24VDC (-15%/+20%)
Ambient temperature:	-25°C...+55°C
Protection class:	IP20

This EC Type Examination Certificate is issued according to Article 12(3) b or 12(4) a of Council Directive 2006/42/EC relating to machinery. It confirms that the listed Annex-IV equipment complies with the principal protection requirements of the directive. It refers only to the sample submitted to TÜV SÜD Product Service GmbH for testing and certification. For details see: www.tuvsud.com/ps-cert

Test report no.: BV99690C

Valid until: 2027-11-03

Date, 2022-11-04

(Peter Weiß)

Page 1 of 1
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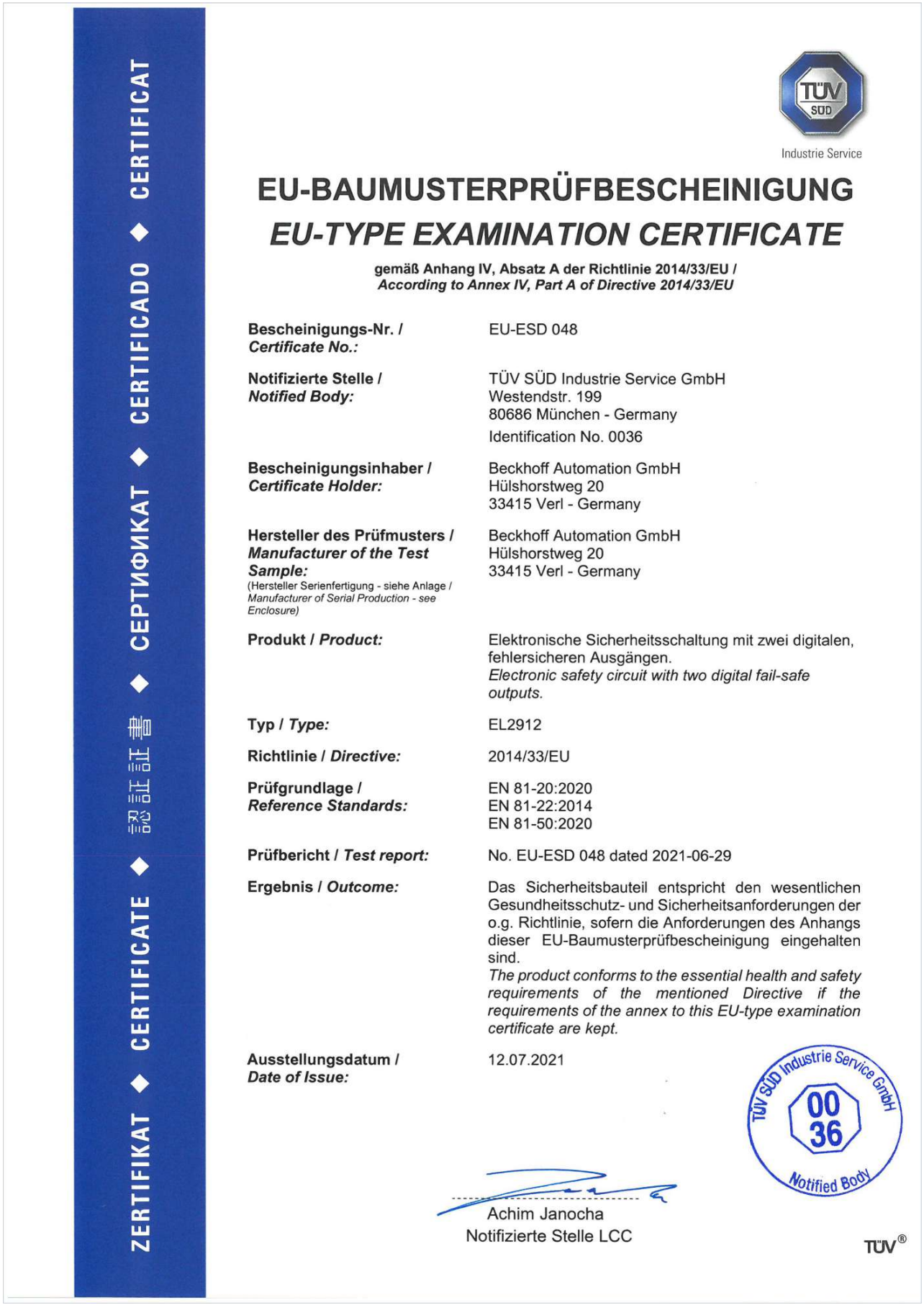
Fig. 45: EL2912 - M6A EC type examination certificate according to directive 2006/42/EC



ZERTIFIKAT ◆ CERTIFICATE ◆ 認証書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

TÜV SÜD Industrie Service

EU-BAUMUSTERPRÜFBESCHEINIGUNG

EU-TYPE EXAMINATION CERTIFICATE

gemäß Anhang IV, Absatz A der Richtlinie 2014/33/EU /
According to Annex IV, Part A of Directive 2014/33/EU

Bescheinigungs-Nr. / ***Certificate No.:***	EU-ESD 048
Notifizierte Stelle / ***Notified Body:***	TÜV SÜD Industrie Service GmbH Westendstr. 199 80686 München - Germany Identification No. 0036
Bescheinigungsinhaber / ***Certificate Holder:***	Beckhoff Automation GmbH Hülshorstweg 20 33415 Verl - Germany
Hersteller des Prüfmusters / ***Manufacturer of the Test Sample:*** (Hersteller Serienfertigung - siehe Anlage / *Manufacturer of Serial Production - see Enclosure*)	Beckhoff Automation GmbH Hülshorstweg 20 33415 Verl - Germany
Produkt / ***Product:***	Elektronische Sicherheitsschaltung mit zwei digitalen, fehlersicheren Ausgängen. *Electronic safety circuit with two digital fail-safe outputs.*
Typ / ***Type:***	EL2912
Richtlinie / ***Directive:***	2014/33/EU
Prüfgrundlage / ***Reference Standards:***	EN 81-20:2020 EN 81-22:2014 EN 81-50:2020
Prüfbericht / ***Test report:***	No. EU-ESD 048 dated 2021-06-29
Ergebnis / ***Outcome:***	Das Sicherheitsbauteil entspricht den wesentlichen Gesundheitsschutz- und Sicherheitsanforderungen der o.g. Richtlinie, sofern die Anforderungen des Anhangs dieser EU-Baumusterprüfbescheinigung eingehalten sind. *The product conforms to the essential health and safety requirements of the mentioned Directive if the requirements of the annex to this EU-type examination certificate are kept.*
Ausstellungsdatum / ***Date of Issue:***	12.07.2021

TÜV SÜD Industrie Service GmbH 00 36 Notified Body

Achim Janocha
Notifizierte Stelle LCC

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Fig. 46: EL2912 - EU-ESD EU type examination certificate according to directive 2014/33/EU

BECKHOFF New Automation Technology

Originalerklärung
Original declaration

EG-Konformitätserklärung

EC Declaration of Conformity

Nummer: 20200063EL2912-3, Datum: 20.12.2022
Number, Date

Hersteller *Manufacturer*	**Beckhoff Automation GmbH & Co. KG** Hülshorstweg 20, 33415 Verl, Germany
erklärt, dass das Produkt *declares that the product*	**TwinSAFE EL2912** TwinSAFE-EtherCAT-Klemme mit 2 sicheren Ausgängen, 24V DC *TwinSAFE EtherCAT terminal with 2 safe outputs, 24V DC*

den Bestimmungen der folgenden EG-Richtlinien entspricht:
complies with the relevant requirements of the following EC directives:

2006/42/EG *2006/42/EC*	**Richtlinie 2006/42/EG des Europäischen Parlaments und des Rates vom 17. Mai 2006 über Maschinen und zur Änderung der Richtlinie 95/16/EG (Neufassung)** *Directive 2006/42/EC of the European Parliament and of the Council of 17 May 2006 on machinery, and amending Directive 95/16/EC (recast)*
2011/65/EU *2011/65/EU*	**Richtlinie 2011/65/EU des Europäischen Parlaments und des Rates vom 8. Juni 2011 zur Beschränkung der Verwendung bestimmter gefährlicher Stoffe in Elektro- und Elektronikgeräten** *Directive 2011/65/EU of the European Parliament and of the Council of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment (recast)*
2014/30/EU *2014/30/EU*	**Richtlinie 2014/30/EU des Europäischen Parlaments und des Rates vom 26. Februar 2014 zur Harmonisierung der Rechtsvorschriften der Mitgliedstaaten über die elektromagnetische Verträglichkeit (Neufassung)** *Directive 2014/30/EU of the European Parliament and of the Council of 26 February 2014 on the harmonisation of the laws of the Member States relating to electromagnetic compatibility (recast)*
2014/33/EU *2014/33/EU*	**Richtlinie 2014/33/EU des Europäischen Parlaments und des Rates vom 26. Februar 2014 zur Angleichung der Rechtsvorschriften der Mitgliedstaaten über Aufzüge und Sicherheitsbauteile für Aufzüge** *Directive 2014/33/EU of the European Parliament and of the Council of 26 February 2014 on the harmonisation of the laws of the Member States relating to lifts and safety components for lifts*

Die Konformität mit den Bestimmungen der genannten Richtlinien wird durch Einhaltung der folgenden Normen nachgewiesen:
The conformity with the listed directives is proved by compliance with the following standards:

EN ISO 13849-1:2015	**EN IEC 63000**:2018	**EN 61000-6-2**:2005	**EN 81-20**:2020
EN 62061:2005/A2:2015		**EN 61000-6-4**:2007	**EN 81-22**:2014
		EN 61131-2:2007	**EN 81-50**:2020

Die Übereinstimmung eines Baumusters des bezeichneten Produkts mit den EU-Richtlinien wurde bescheinigt von
The accordance of a production sample of the designated product with the EC directives is certified by

Richtlinie *Directive*	**Benannte Stelle** *Notified Body*	**Baumusterprüfbescheinigung** *type examination certificate*
2006/42/EG *2006/42/EC*	**TÜV SÜD Product Service GmbH** Ridlerstraße 65, 80339 München, Germany	**M6A 062386 0063 Rev. 01** 2022-11-04
2014/33/EU *2014/33/EU*	**TÜV SÜD Industrie Service GmbH** Westendstraße 199, 80686 München, Germany	**EU-ESD 048** 2021-07-12

Verantwortlich für die Zusammenstellung der technischen Unterlagen
Responsible for the compilation of technical documentation

Bevollmächtigter
Authorised person

Beckhoff Automation GmbH & Co. KG
Hülshorstweg 20, 33415 Verl, Germany

Verl, 22.11.2022

Ort / Datum
Place / Date

Dipl.-Phys. Hans Beckhoff, Geschäftsführer
Dipl.-Phys. Hans Beckhoff, CEO

Fig. 47: EL2912 – EC declaration of conformity

CERTIFICATE OF COMPLIANCE

Certificate Number 20181116-E172151
Report Reference E172151-20070727
Issue Date 2018-NOVEMBER-16

EtherCAT bridge	EL6692, EL6695
Supply module [eng. note – not for E-bus]	EL9505, EL9508, EL9510, EL9512, EL9515, ES9505, ES9508, ES9510, ES9512, ES9515
Supply module [eng. note – not for E-bus]	EL9560

Fan module	ZB8610
Digital input module	EL1258
Digital input module	EL1382, ES1382
Digital Output Module (Pulse Train)	EL2522
Analog multifunctional input module	EL3751
Encoder interface	EL5021, ES5021, EL5032
Display module with switch	EL6090
Pressure measurements module	EM3701, EM3702, EM3712

Analog input module	ELM3002, ELM3004, ELM3102, ELM3104, ELM3142, ELM3144, ELM3146, ELM3148, ELM3502, ELM3504, ELM3602, ELM3604, ELM3702, ELM3704
End module	ELM9012
Power supply ELX	ELX9560
Digital input ELX	ELX1052, ELX1054
Digital output ELX	ELX2002
Analog input ELX	ELX3152, ELX3181, ELX3202, ELX3204, ELX3312, ELX3314, ELX3351
Analog output ELX	ELX4181
Incremental encoder ELX	ELX5151
Bus end module	ELX9012
EBUS power supply ELX	ELX9410
Digital input module	EL1918
Potential supply terminal	EL2911
Digital output	EL2912

Bruce Mahrenholz, Director North American Certification Program

UL LLC

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Fig. 48: EL2912 - UL certificate, page 5

3.9 EL6900

The next pages provide an overview of the current certificates for the EL6900 TwinSAFE component.

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

Product Service

CERTIFICATE

No. Z10 062386 0044 Rev. 01

Holder of Certificate: **Beckhoff Automation GmbH & Co. KG**
Hülshorstweg 20
33415 Verl
GERMANY

Certification Mark:

Product: **Safety components**

Model(s): **EL6900**

Parameters:
Supply voltage: 24VDC (-15%...+20%)
Power dissipation: 2W
Protection class: IP20

with "TwinSAFE Verifier" or "CODESYS Safety for EtherCAT Safety Module".
Note: "CODESYS Safety for EtherCAT Safety Module" is developed in accordance with EN 61508:2010.

Tested according to:
2006/42/EC
EN 61508-1:2010 (SIL1-3)
EN 61508-2:2010 (SIL1-3)
EN 61508-3:2010 (SIL1-3)
EN ISO 13849-1:2015 (Cat 4, PL e)
EN 13243:2015
DIN EN 61000-6-2:2006
DIN EN 61000-6-4:2007

The product was tested on a voluntary basis and complies with the essential requirements. The certification mark shown above can be affixed on the product. It is not permitted to alter the certification mark in any way. In addition the certification holder must not transfer the certificate to third parties. This certificate is valid until the listed date, unless it is cancelled earlier. All applicable requirements of the testing and certification regulations of TÜV SÜD Group have to be complied. For details see: www.tuvsud.com/ps-cert

Test report no.: BV100963C
Valid until: 2028-05-31

Date, 2023-06-02

(Christian Dirmeier)

Page 1 of 1
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Fig. 49: EL6900 - Z10 "Functional Safety" certificate

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

America

CERTIFICATE

No. U8V 062386 0085 Rev. 00

Holder of Certificate: **Beckhoff Automation GmbH & Co. KG**
Hülshorstweg 20
33415 Verl
GERMANY

Certification Mark:

C US

Product: **Programmable Controller**

This product was voluntarily tested to the relevant safety requirements referenced on this certificate. It can be marked with the certification mark above. The mark must not be altered in any way. This product certification system operated by TÜV SÜD America Inc. most closely resembles system 3 as defined in ISO/IEC 17067. Certification is based on the TÜV SÜD "Testing and Certification Regulations". TÜV SÜD America Inc. is an OSHA recognized NRTL and a Standards Council of Canada accredited Certification body.

Test report no.: 713197340

Date, 2021-05-11

(Susanne Dormann)

Page 1 of 2
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Fig. 50: EL6900 - U8V NRTL certificate, page 1

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

America

CERTIFICATE

No. U8V 062386 0085 Rev. 00

Model(s): **EL1904**
EL2904
EL6900

Tested according to:
UL 61010-1:2012/R:2018-11
CAN/CSA-C22.2 No. 61010-1:2012/A1:2018
UL 61010-2-201:2018
CAN/CSA-C22.2 No. 61010-2-201:2018

Parameters:

EL1904

Rated voltage:	24 V
Rated frequency:	dc
Rated current:	10 A current load on Bus Coupler power consumption max 200 mA
Environmental Conditions:	55°C, IP20

EL2904

Rated voltage:	24 V
Rated frequency:	dc
Rated current:	10 A current load on Bus Coupler power consumption max 188 mA
Environmental Conditions:	55°C, IP20
Outputs:	4 outputs, 24 Vdc, 0.5 A each output

EL6900

Rated voltage:	24 V
Rated frequency:	dc
Rated current:	10 A current load on Bus Coupler power consumption max 221 mA
Environmental Conditions:	55°C, IP20

When installing all requirements of mentioned test specification(s) and conditions of acceptability must be fulfilled.

- ***These modules shall be used with the Beckhoff Bus Terminal system.***
- ***The validation of the EMC requirements shall be evaluated in the end-use***

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Fig. 51: EL6900 - U8V NRTL certificate, page 2

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

Product Service

EC-Type Examination Certificate

No. M6A 062386 0093 Rev. 00

Holder of Certificate: **Beckhoff Automation GmbH & Co. KG**
Hülshorstweg 20
33415 Verl
GERMANY

Product: **Safety components**

Model(s): **EL6900**

Parameters:
Supply voltage: 24VDC (-15%...+20%)
Power dissipation: 2W
Protection class: IP20

with "TwinSAFE Verifier" or "CODESYS Safety for EtherCAT Safety Module".
Note: "CODESYS Safety for EtherCAT Safety Module" is developed in accordance with IEC EN 61508:2010.

This EC Type Examination Certificate is issued according to Article 12(3) b or 12(4) a of Council Directive 2006/42/EC relating to machinery. It confirms that the listed Annex-IV equipment complies with the principal protection requirements of the directive. It refers only to the sample submitted to TÜV SÜD Product Service GmbH for testing and certification. For details see: www.tuvsud.com/ps-cert

Test report no.: BV100963C

Valid until: 2028-06-13

Date, 2023-06-16

(Peter Weiß)

Page 1 of 1
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Fig. 52: EL6900 – M6A EC type examination certificate

BECKHOFF New Automation Technology

Originalerklärung
Original declaration

EG-Konformitätserklärung

EC Declaration of Conformity

Nummer: 2017043EL6900-3, Datum: 25.07.2023
Number, Date

Hersteller *Manufacturer*	**Beckhoff Automation GmbH & Co. KG** Hülshorstweg 20, 33415 Verl, Germany
erklärt, dass das Produkt *declares that the product*	**TwinSAFE EL6900** TwinSAFE Logic *TwinSAFE logic*

den Bestimmungen der folgenden EG-Richtlinien entspricht:
complies with the relevant requirements of the following EC directives:

2006/42/EG *2006/42/EC*	**Richtlinie 2006/42/EG des Europäischen Parlaments und des Rates vom 17. Mai 2006 über Maschinen und zur Änderung der Richtlinie 95/16/EG (Neufassung)** *Directive 2006/42/EC of the European Parliament and of the Council of 17 May 2006 on machinery, and amending Directive 95/16/EC (recast)*
2011/65/EU *2011/65/EU*	**Richtlinie 2011/65/EU des Europäischen Parlaments und des Rates vom 8. Juni 2011 zur Beschränkung der Verwendung bestimmter gefährlicher Stoffe in Elektro- und Elektronikgeräten** *Directive 2011/65/EU of the European Parliament and of the Council of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment (recast)*
2014/30/EU *2014/30/EU*	**Richtlinie 2014/30/EU des Europäischen Parlaments und des Rates vom 26. Februar 2014 zur Harmonisierung der Rechtsvorschriften der Mitgliedstaaten über die elektromagnetische Verträglichkeit (Neufassung)** *Directive 2014/30/EU of the European Parliament and of the Council of 26 February 2014 on the harmonisation of the laws of the Member States relating to electromagnetic compatibility (recast)*
2014/34/EU *2014/34/EU*	**Richtlinie 2014/34/EU des Europäischen Parlaments und des Rates vom 26. Februar 2014 zur Harmonisierung der Rechtsvorschriften der Mitgliedstaaten für Geräte und Schutzsysteme zur bestimmungsgemäßen Verwendung in explosionsgefährdeten Bereichen (Neufassung)** *Directive 2014/34/EU of the European Parliament and of the Council of 26 February 2014 on the harmonisation of the laws of the Member States relating to equipment and protective systems intended for use in potentially explosive atmospheres (recast)*

Die Konformität mit den Bestimmungen der genannten Richtlinien wird durch Einhaltung der folgenden Normen nachgewiesen:
The conformity with the listed directives is proved by compliance with the following standards:

EN ISO 13849-1:2015	**EN IEC 63000**:2018	**EN 61000-6-2**:2005	**EN 60079-0**:2018
EN 62061:2005/A2:2015		**EN 61000-6-4**:2007	**EN 60079-15**:2010
		EN 61131-2:2007	

Die Übereinstimmung eines Baumusters des bezeichneten Produkts mit den EU-Richtlinien wurde bescheinigt von
The accordance of a production sample of the designated product with the EC directives is certified by

Richtlinie *Directive*	**Benannte Stelle** *Notified Body*	**Baumusterprüfbescheinigung** *type examination certificate*
2006/42/EG *2006/42/EC*	**TÜV SÜD Product Service GmbH** Ridlerstraße 65, 80339 München, Germany	**M6A 062386 0093 Rev. 00** 2023-06-16
2014/34/EU *2014/34/EU*	**DEKRA Certification B.V.** Meander 1051, 6825 MJ Arnhem, Netherlands	**KEMA 10ATEX0075 X** 2020-07-09

Verantwortlich für die Zusammenstellung der technischen Unterlagen
Responsible for the compilation of technical documentation

Bevollmächtigter
Authorised person

Beckhoff Automation GmbH & Co. KG
Hülshorstweg 20, 33415 Verl, Germany

Verl, 27.7.2023

Ort / Datum
Place / Date

Dipl.-Phys. Hans Beckhoff, Geschäftsführer
Dipl.-Phys. Hans Beckhoff, CEO

Fig. 53: EL6900 – EC declaration of conformity

CERTIFICATE OF COMPLIANCE

Certificate Number 20180309-E172151
Report Reference E172151-20070727
Issue Date 2018-MARCH-09

Analog Input Module	EL3001, EL3002, EL3004, EL3008, EL3041, EL3042, EL3044, EL3051, EL3052, EL3054, EL3058, EL3061, EL3062, EL3062-0030, EL3064, EL3068, ES3001, ES3002, ES3004, ES3008, ES3041, ES3042, ES3044, ES3051, ES3052, ES3054, ES3058, ES3061, ES3062, ES3064, ES3068
Analog Input Module	EL3011, EL3012, EL3014, EL3021, EL3022, EL3024, EL3048, EL3101, EL3102, EL3104, EL3111, EL3112, EL3114, EL3121, EL3122, EL3124, EL3141, EL3142, EL3144, EL3151, EL3152, EL3154, EL3161, EL3162, EL3164, EL3174, EL3174-0002, EL3702, EL3742, ES3011, ES3012, ES3014, ES3021, ES3022, ES3024, ES3048, ES3101, ES3102, ES3104, ES3111, ES3112, ES3114, ES3121, ES3122, ES3124, ES3141, ES3142, ES3144, ES3151, ES3152, ES3154, ES3161, ES3162, ES3164, ES3702, ES3742
Analog Input Module	EL3201, EL3202, EL3204, EL3208, EL3214, EL3255, EL3311, EL3312, EL3314, EL3318, EL3351, EL3356, EL3602, EL3612, EL3632, EL3692, ES3201, ES3202, ES3204, ES3351, ES3356
Analog Output Module	EL4132, EL4102, EL4112, EL4122, ES4132, ES4102, ES4112, ES4122
Analog Output Module	EL4001, EL4002, EL4004, EL4008 EL4011, EL4012, EL4014, EL4018, EL4021, EL4022, EL4024, EL4028, EL4031, EL4032, EL4034, EL4038, EL4104, EL4114, EL4124, EL4134, EL4712, EL4732, ES4001, ES4002, ES4004, ES4008 ES4011, ES4012, ES4014, ES4018, ES4021, ES4022, ES4024, ES4028, ES4031, ES4032, ES4034, ES4038, ES4104, ES4114, ES4124, ES4134, ES4712, ES4732
Interface Module	EL5101, ES5101
Interface Module	EL5151, EL5152, ES5151, ES5152
Interface Module	EL5001, EL5002, EL6001, EL6021, EL6851, ES5001, ES6001, ES6021, ES6851
Interface Module	EL6002, EL6022, EL6731, EL6601, EL6631, EL6632, EL6652,EL6688, EL6614, EL6720, EL6751, EL6740 EL6752, EK1521, EK1561
Communication Module	EL6900, EL6910, EL6930
System Module	EL9011
Supply Module	EL9100, ES9100
Bus Supply Module	EL9400, ES9400
Bus Supply Module	EL9150, EL9160, EL9180, EL9185, EL9190, EL9195, ES9180, ES9185, ES9190, ES9195
Bus Supply Terminal	EL9186, EL9187, ES9186, ES9187
EMC shield terminal	EL9070
End Module	EL9010, EL9080
Measurement Module	EL3403, ES3403

Bruce Mahrenholz, Director North American Certification Program

UL LLC

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Fig. 54: EL6900 - UL certificate, page 3

CERTIFICATE

Type Examination

(1) Type Examination

(2) **Product intended for use in potentially explosive atmospheres - Directive 2014/34/EU**

(3) Type Examination Certificate Number: **KEMA 10ATEX0075 X** Issue Number: **10**

(4) Product: **Fieldbus Components Type BK ..., Type BC ..., Type KL ..., Type KS ..., Type EK ..., Type EKM ..., Type EL ... and Type ES ...**

(5) Manufacturer: **Beckhoff Automation GmbH & Co. KG**

(6) Address: **Hülshorstweg 20, 33415 Verl, Germany**

(7) This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

(8) DEKRA Certification B.V., certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014.

The examination and test results are recorded in confidential test report no. 213305100, issue 10.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 60079-0 : 2012 + A11 : 2013 **EN 60079-15 : 2010**

except in respect of those requirements listed at item 18 of the Schedule.

(10) If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate.

(11) This Type Examination Certificate relates only to the design and construction of the specified product and not to the manufacturing process and its monitoring.

(12) The marking of the product shall include the following:

II 3 G Ex nA IIC T4 Gc or **Ex nA nC IIC T4 Gc**

Date of certification: 9 July 2020

DEKRA Certification B.V.

R. Schuller
Certification Manager

Page 1/3

DEKRA Certification B.V. Meander 1051, 6825 MJ Arnhem P.O. Box 5185, 6802 ED Arnhem The Netherlands
T +31 88 96 83000 F +31 88 96 83100 www.dekra-product-safety.com Registered Arnhem 09085396

Fig. 55: Type EL - ATEX certificate

3.10 EL6910

The following pages provide an overview of the current certificates for the EL6910 TwinSAFE component.

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

Product Service

CERTIFICATE

No. Z10 062386 0034 Rev. 01

Holder of Certificate: **Beckhoff Automation GmbH & Co. KG**
Hülshorstweg 20
33415 Verl
GERMANY

Certification Mark:

Product: **Safety components**
Model(s): **EJ6910, EL6910**

Parameters:

Product Description:	TwinSAFE Logic
Transfer protocol:	Safety over EtherCAT (FSoE)
Protection Class:	IP20

Tested according to:
EN 61508-1:2010 (SIL 1-3)
EN 61508-2:2010 (SIL 1-3)
EN 61508-3:2010 (SIL 1-3)
EN ISO 13849-1:2015 (up to Cat 4, PL e)
EN 62061:2021 (max. SIL 3)

The product was tested on a voluntary basis and complies with the essential requirements. The certification mark shown above can be affixed on the product. It is not permitted to alter the certification mark in any way. In addition the certification holder must not transfer the certificate to third parties. This certificate is valid until the listed date, unless it is cancelled earlier. All applicable requirements of the testing and certification regulations of TÜV SÜD Group have to be complied. For details see: www.tuvsud.com/ps-cert

Test report no.: **BV99767C**
Valid until: 2027-12-08

Date, 2022-12-12

(Peter Weiß)

Page 1 of 1
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Fig. 56: EL6910 - Z10 "Functional Safety" certificate

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

Product Service

EC-Type Examination Certificate

No. M6A 062386 0043 Rev. 01

Holder of Certificate: **Beckhoff Automation GmbH & Co. KG**
Hülshorstweg 20
33415 Verl
GERMANY

Product: **Safety components**
Model(s): **EJ 6910, EL 6910**

Parameters:

Product Description:	TwinSAFE Logic
Transfer protocol:	Safety over EtherCAT (FSoE)
Protection class:	IP20

This EC Type Examination Certificate is issued according to Article 12(3) b or 12(4) a of Council Directive 2006/42/EC relating to machinery. It confirms that the listed Annex-IV equipment complies with the principal protection requirements of the directive. It refers only to the sample submitted to TÜV SÜD Product Service GmbH for testing and certification. For details see: www.tuvsud.com/ps-cert

Test report no.: **BV99767C**

Valid until: 2027-12-08

Date, 2022-12-12

(Peter Weiß)

Page 1 of 1
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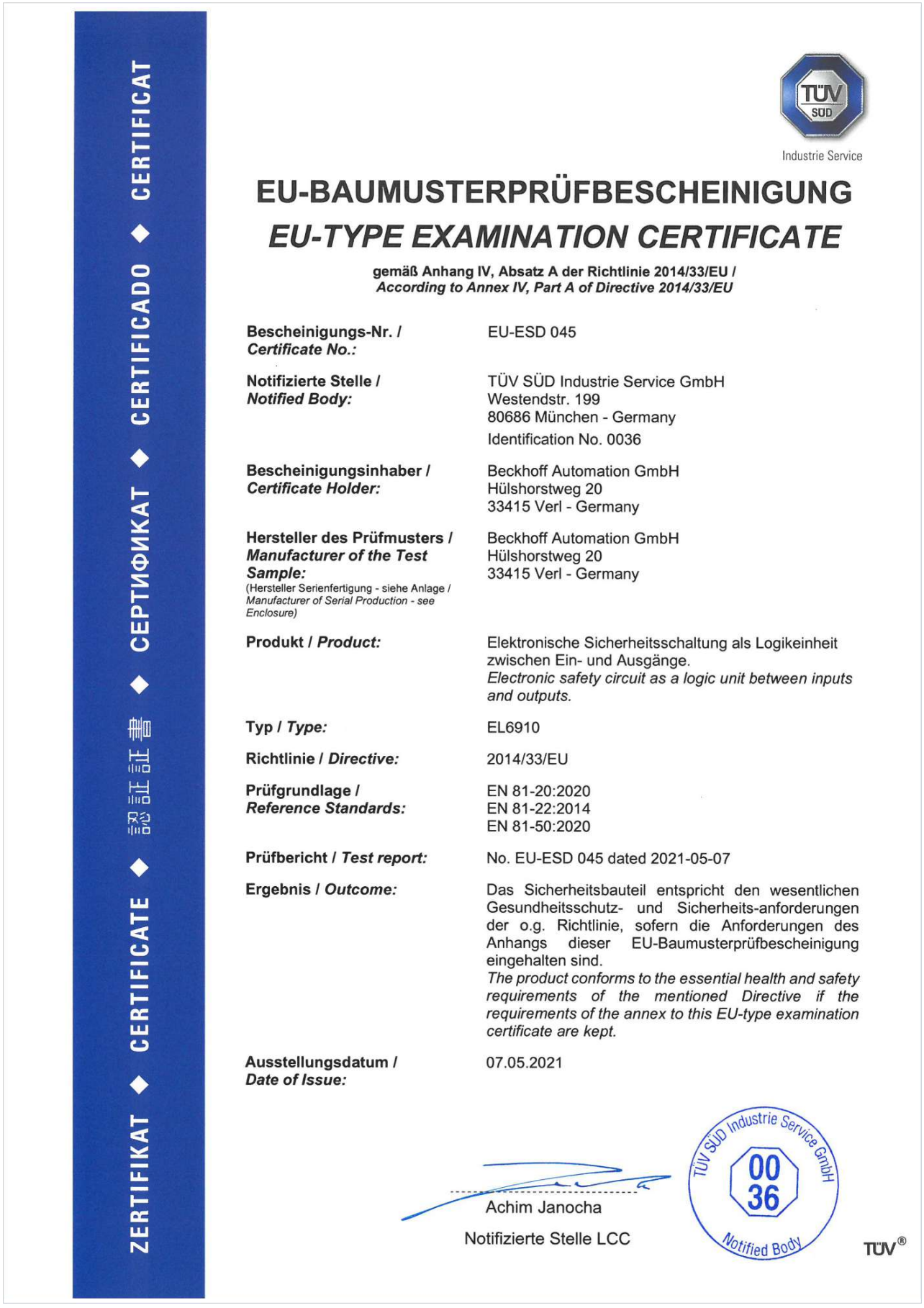
Fig. 57: EL6910 - M6A EC type examination certificate according to directive 2006/42/EC



ZERTIFIKAT ◆ CERTIFICATE ◆ 認証書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

Industrie Service

EU-BAUMUSTERPRÜFBESCHEINIGUNG
EU-TYPE EXAMINATION CERTIFICATE

gemäß Anhang IV, Absatz A der Richtlinie 2014/33/EU /
According to Annex IV, Part A of Directive 2014/33/EU

Bescheinigungs-Nr. / ***Certificate No.:***	EU-ESD 045
Notifizierte Stelle / ***Notified Body:***	TÜV SÜD Industrie Service GmbH Westendstr. 199 80686 München - Germany Identification No. 0036
Bescheinigungsinhaber / ***Certificate Holder:***	Beckhoff Automation GmbH Hülshorstweg 20 33415 Verl - Germany
Hersteller des Prüfmusters / ***Manufacturer of the Test Sample:*** (Hersteller Serienfertigung - siehe Anlage / *Manufacturer of Serial Production - see Enclosure*)	Beckhoff Automation GmbH Hülshorstweg 20 33415 Verl - Germany
Produkt / ***Product:***	Elektronische Sicherheitsschaltung als Logikeinheit zwischen Ein- und Ausgänge. *Electronic safety circuit as a logic unit between inputs and outputs.*
Typ / ***Type:***	EL6910
Richtlinie / ***Directive:***	2014/33/EU
Prüfgrundlage / ***Reference Standards:***	EN 81-20:2020 EN 81-22:2014 EN 81-50:2020
Prüfbericht / ***Test report:***	No. EU-ESD 045 dated 2021-05-07
Ergebnis / ***Outcome:***	Das Sicherheitsbauteil entspricht den wesentlichen Gesundheitsschutz- und Sicherheits-anforderungen der o.g. Richtlinie, sofern die Anforderungen des Anhangs dieser EU-Baumusterprüfbescheinigung eingehalten sind. *The product conforms to the essential health and safety requirements of the mentioned Directive if the requirements of the annex to this EU-type examination certificate are kept.*
Ausstellungsdatum / ***Date of Issue:***	07.05.2021

Achim Janocha
Notifizierte Stelle LCC

TÜV SÜD Industrie Service GmbH 00 36 Notified Body

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Fig. 58: EL6910 - EU-ESD EU type examination certificate according to directive 2014/33/EU

BECKHOFF New Automation Technology

Originalerklärung
Original declaration

EG-Konformitätserklärung

EC Declaration of Conformity

Nummer: 2017043EL6910-3, Datum: 19.12.2022
Number, Date

Hersteller *Manufacturer*	**Beckhoff Automation GmbH & Co. KG** Hülshorstweg 20, 33415 Verl, Germany
erklärt, dass das Produkt *declares that the product*	**TwinSAFE EL6910** TwinSAFE Logic *TwinSAFE logic*

den Bestimmungen der folgenden EG-Richtlinien entspricht:
complies with the relevant requirements of the following EC directives:

2006/42/EG *2006/42/EC*	**Richtlinie 2006/42/EG des Europäischen Parlaments und des Rates vom 17. Mai 2006 über Maschinen und zur Änderung der Richtlinie 95/16/EG (Neufassung)** *Directive 2006/42/EC of the European Parliament and of the Council of 17 May 2006 on machinery, and amending Directive 95/16/EC (recast)*
2014/33/EU *2014/33/EU*	**Richtlinie 2014/33/EU des Europäischen Parlaments und des Rates vom 26. Februar 2014 zur Angleichung der Rechtsvorschriften der Mitgliedstaaten über Aufzüge und Sicherheitsbauteile für Aufzüge** *Directive 2014/33/EU of the European Parliament and of the Council of 26 February 2014 on the harmonisation of the laws of the Member States relating to lifts and safety components for lifts*
2014/30/EU *2014/30/EU*	**Richtlinie 2014/30/EU des Europäischen Parlaments und des Rates vom 26. Februar 2014 zur Harmonisierung der Rechtsvorschriften der Mitgliedstaaten über die elektromagnetische Verträglichkeit (Neufassung)** *Directive 2014/30/EU of the European Parliament and of the Council of 26 February 2014 on the harmonisation of the laws of the Member States relating to electromagnetic compatibility (recast)*
2011/65/EU *2011/65/EU*	**Richtlinie 2011/65/EU des Europäischen Parlaments und des Rates vom 8. Juni 2011 zur Beschränkung der Verwendung bestimmter gefährlicher Stoffe in Elektro- und Elektronikgeräten** *Directive 2011/65/EU of the European Parliament and of the Council of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment (recast)*

Die Konformität mit den Bestimmungen der genannten Richtlinien wird durch Einhaltung der folgenden Normen nachgewiesen:
The conformity with the listed directives is proved by compliance with the following standards:

EN ISO 13849-1:2015	**EN IEC 63000**:2018	**EN 61131-2**:2007	**EN 81-20**:2020
EN 62061:2005/A2:2015		**EN 61000-6-2**:2005	**EN 81-22**:2014
		EN 61000-6-4:2007	**EN 81-50**:2020

Die Übereinstimmung eines Baumusters des bezeichneten Produkts mit den EU-Richtlinien wurde bescheinigt von
The accordance of a production sample of the designated product with the EC directives is certified by

Richtlinie *Directive*	**Benannte Stelle** *Notified Body*	**Baumusterprüfbescheinigung** *type examination certificate*
2006/42/EG *2006/42/EC*	**TÜV SÜD Product Service GmbH** Ridlerstraße 65, 80339 München, Germany	**M6A 062386 0043 Rev. 01** 2022-12-12
2014/33/EU *2014/33/EU*	**TÜV SÜD Industrie Service GmbH** Westendstraße 199, 80686 München, Germany	**EU-ESD 045** 2021-05-07

Verantwortlich für die Zusammenstellung der technischen Unterlagen
Responsible for the compilation of technical documentation

Bevollmächtigter
Authorised person

Beckhoff Automation GmbH & Co. KG
Hülshorstweg 20, 33415 Verl, Germany

Verl, 22.12.2022

Ort / Datum
Place / Date

Dipl.-Phys. Hans Beckhoff, Geschäftsführer
Dipl.-Phys. Hans Beckhoff, CEO

Fig. 59: EL6910 – EC declaration of conformity

CERTIFICATE OF COMPLIANCE

Certificate Number 20180309-E172151
Report Reference E172151-20070727
Issue Date 2018-MARCH-09

Analog Input Module	EL3001, EL3002, EL3004, EL3008, EL3041, EL3042, EL3044, EL3051, EL3052, EL3054, EL3058, EL3061, EL3062, EL3062-0030, EL3064, EL3068, ES3001, ES3002, ES3004, ES3008, ES3041, ES3042, ES3044, ES3051, ES3052, ES3054, ES3058, ES3061, ES3062, ES3064, ES3068
Analog Input Module	EL3011, EL3012, EL3014, EL3021, EL3022, EL3024, EL3048, EL3101, EL3102, EL3104, EL3111, EL3112, EL3114, EL3121, EL3122, EL3124, EL3141, EL3142, EL3144, EL3151, EL3152, EL3154, EL3161, EL3162, EL3164, EL3174, EL3174-0002, EL3702, EL3742, ES3011, ES3012, ES3014, ES3021, ES3022, ES3024, ES3048, ES3101, ES3102, ES3104, ES3111, ES3112, ES3114, ES3121, ES3122, ES3124, ES3141, ES3142, ES3144, ES3151, ES3152, ES3154, ES3161, ES3162, ES3164, ES3702, ES3742
Analog Input Module	EL3201, EL3202, EL3204, EL3208, EL3214, EL3255, EL3311, EL3312, EL3314, EL3318, EL3351, EL3356, EL3602, EL3612, EL3632, EL3692, ES3201, ES3202, ES3204, ES3351, ES3356
Analog Output Module	EL4132, EL4102, EL4112, EL4122, ES4132, ES4102, ES4112, ES4122
Analog Output Module	EL4001, EL4002, EL4004, EL4008 EL4011, EL4012, EL4014, EL4018, EL4021, EL4022, EL4024, EL4028, EL4031, EL4032, EL4034, EL4038, EL4104, EL4114, EL4124, EL4134, EL4712, EL4732, ES4001, ES4002, ES4004, ES4008 ES4011, ES4012, ES4014, ES4018, ES4021, ES4022, ES4024, ES4028, ES4031, ES4032, ES4034, ES4038, ES4104, ES4114, ES4124, ES4134, ES4712, ES4732
Interface Module	EL5101, ES5101
Interface Module	EL5151, EL5152, ES5151, ES5152
Interface Module	EL5001, EL5002, EL6001, EL6021, EL6851, ES5001, ES6001, ES6021, ES6851
Interface Module	EL6002, EL6022, EL6731, EL6601, EL6631, EL6632, EL6652,EL6688, EL6614, EL6720, EL6751, EL6740 EL6752, EK1521, EK1561
Communication Module	EL6900, EL6910, EL6930
System Module	EL9011
Supply Module	EL9100, ES9100
Bus Supply Module	EL9400, ES9400
Bus Supply Module	EL9150, EL9160, EL9180, EL9185, EL9190, EL9195, ES9180, ES9185, ES9190, ES9195
Bus Supply Terminal	EL9186, EL9187, ES9186, ES9187
EMC shield terminal	EL9070
End Module	EL9010, EL9080
Measurement Module	EL3403, ES3403

Bruce Mahrenholz, Director North American Certification Program

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Fig. 60: EL6910 - UL certificate, page 3

3.11 EL6930

The following pages provide an overview of the current certificates for the EL6930 TwinSAFE component.

ZERTIFIKAT ◆ CERTIFICATE ◆ 認証書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

Product Service

CERTIFICATE

No. Z10 17 10 62386 044

Holder of Certificate: Beckhoff Automation GmbH & Co. KG
Hülshorstweg 20
33415 Verl
GERMANY

Factory(ies): 62386

Certification Mark:

Product: Safety components

Model(s): KL 6904, EL 6900, EL 6930

Parameters:

Supply voltage:	24VDC (-15%...+20%)
Power dissipation:	2W
Protection class:	IP20

with "TwinSAFE Verifier" OR "CODESYS Safety for EtherCAT Safety Module".
Note: "CODESYS Safety for EtherCAT Safety Module" is developed in accordance with EN 61508:2010.

Tested according to:
2006/42/EC
EN 61508-1:2010 (SIL1-3)
EN 61508-2:2010 (SIL1-3)
EN 61508-3:2010 (SIL1-3)
EN ISO 13849-1:2015 (Cat 4, PL e)
EN 81-22:2014
EN 81-20:2014
EN 81-50:2014
EN 13243:2015
DIN EN 61000-6-2:2006
DIN EN 61000-6-4:2007

The product was tested on a voluntary basis and complies with the essential requirements. The certification mark shown above can be affixed on the product. It is not permitted to alter the certification mark in any way. In addition the certification holder must not transfer the certificate to third parties. See also notes overleaf.

Test report no.: BV82168T

Valid until: 2022-10-15

Date, 2017-10-16 (Günter Greif)

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Fig. 61: EL6930 – Z10 Functional Safety Certificate

ZERTIFIKAT ◆ CERTIFICATE ◆ 認証証書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

TÜV SÜD Product Service

EC-Type Examination Certificate

No. M6A 17 07 62386 043

Holder of Certificate: **Beckhoff Automation GmbH & Co. KG**
Hülshorstweg 20
33415 Verl
GERMANY

Product: **Safety components**

Model(s): **KL 6904, EL 6900, EL 6930, EJ 6910, EL 6910**

Parameters:

Supply voltage:	24VDC (-15%...+20%)
Power dissipation:	2W
Protection class:	IP20

with "TwinSAFE Verifier" OR "CODESYS Safety for EtherCAT Safety Module".
Note: "CODESYS Safety for EtherCAT Safety Module" is developed in accordance with IEC EN 61508:2010.

This EC Type Examination Certificate is issued according to Article 12(3) b or 12(4) a of Council Directive 2006/42/EC relating to machinery. It confirms that the listed Annex-IV equipment complies with the principal protection requirements of the directive. It refers only to the sample submitted to TÜV SÜD Product Service GmbH for testing and certification. See also notes overleaf.

Test report no.: BV82168T, BV88453T

Valid until: 2022-07-27

Date, 2017-07-28 (Günter Greil)

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A1 / 04.11

Fig. 62: EL6930 – M6A EC-Type Examination Certificate

BECKHOFF New Automation Technology

Originalerklärung
Original declaration

EG-Konformitätserklärung

EC Declaration of Conformity

Nummer: 2017043EL6930-2, Datum: 31.07.2017
Number, Date

Hersteller *Manufacturer*	**Beckhoff Automation GmbH & Co. KG** Hülshorstweg 20, 33415 Verl, Germany
erklärt, dass das Produkt *declares that the product*	**TwinSAFE EL6930** TwinSAFE-Logic-Klemme mit PROFIsafe Gateway *TwinSAFE Logic Terminal with PROFIsafe gateway*

Sicherheitsbauteil nach EG-Richtlinie 2006/42/EG, Anhang IV
safety component according to EC directive 2006/42/EC, annex IV

den einschlägigen Bestimmungen der Maschinenrichtlinie 2006/42/EG entspricht.
complies with the relevant requirements of the machinery directive 2006/42/EC.

Angewandte Normen
Applied Standards

EN 62061:2005+A1:2013	**Sicherheit von Maschinen – Funktionale Sicherheit sicherheitsbezogener elektrischer, elektronischer und programmierbarer elektronischer Steuerungssysteme** *Safety of machinery – Functional safety of safety-related electrical, electronic and programmable electronic control systems*
EN61131-2:2007	**Speicherprogrammierbare Steuerungen - Teil 2: Betriebsmittelanforderungen und Prüfungen** *Industrial-process control systems - Instruments with analogue inputs and two- or multi-state outputs - Part 2: Guidance for inspection and routine testing*
EN 50581:2012	**Technische Dokumentation zur Beurteilung von Elektro- und Elektronikgeräten hinsichtlich der Beschränkung gefährlicher Stoffe** *Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances*
EN ISO 13849-1:2015	**Sicherheit von Maschinen – Sicherheitsbezogene Teile von Steuerungen** *Safety of machinery – Safety-related parts of control systems*
EN 61000-6-2:2011	**Elektromagnetische Verträglichkeit (EMV) – Störfestigkeit für Industriebereiche** *Electromagnetic compatibility (EMC) – Immunity for industrial environments*
EN 61000-6-4:2011	**Elektromagnetische Verträglichkeit (EMV) - Störaussendung für Industriebereiche** *Electromagnetic compatibility (EMC) - Emission standard for industrial environments*

Die Übereinstimmung eines Baumusters des bezeichneten Produkts mit der EG-Richtline wurde bescheinigt von
The accordance of a production sample of the designated product with the EC directive is certified by

Benannte Stelle *Notified body*	**TÜV SÜD Product Service GmbH** Ridlerstraße 65, 80339 München, Germany
EG-Baumusterprüfbescheinigung *EC-type examination certificate*	**M6A 17 07 62386 043, 28.07.2017**

Verantwortlich für die Zusammenstellung der technischen Unterlagen
Responsible for the compilation of technical documentation

Bevollmächtigter *Authorised person*	**Beckhoff Automation GmbH & Co. KG** Hülshorstweg 20, 33415 Verl, Germany

Verl, 31.07.2017

Dipl.-Phys. Hans Beckhoff

Geschäftsführer Beckhoff Automation GmbH & Co. KG
CEO Beckhoff Automation GmbH & Co. KG

Fig. 63: EL6930 – EC Declaration of Conformity

CERTIFICATE OF COMPLIANCE

Certificate Number 20180309-E172151
Report Reference E172151-20070727
Issue Date 2018-MARCH-09

Analog Input Module	EL3001, EL3002, EL3004, EL3008, EL3041, EL3042, EL3044, EL3051, EL3052, EL3054, EL3058, EL3061, EL3062, EL3062-0030, EL3064, EL3068, ES3001, ES3002, ES3004, ES3008, ES3041, ES3042, ES3044, ES3051, ES3052, ES3054, ES3058, ES3061, ES3062, ES3064, ES3068
Analog Input Module	EL3011, EL3012, EL3014, EL3021, EL3022, EL3024, EL3048, EL3101, EL3102, EL3104, EL3111, EL3112, EL3114, EL3121, EL3122, EL3124, EL3141, EL3142, EL3144, EL3151, EL3152, EL3154, EL3161, EL3162, EL3164, EL3174, EL3174-0002, EL3702, EL3742, ES3011, ES3012, ES3014, ES3021, ES3022, ES3024, ES3048, ES3101, ES3102, ES3104, ES3111, ES3112, ES3114, ES3121, ES3122, ES3124, ES3141, ES3142, ES3144, ES3151, ES3152, ES3154, ES3161, ES3162, ES3164, ES3702, ES3742
Analog Input Module	EL3201, EL3202, EL3204, EL3208, EL3214, EL3255, EL3311, EL3312, EL3314, EL3318, EL3351, EL3356, EL3602, EL3612, EL3632, EL3692, ES3201, ES3202, ES3204, ES3351, ES3356
Analog Output Module	EL4132, EL4102, EL4112, EL4122, ES4132, ES4102, ES4112, ES4122
Analog Output Module	EL4001, EL4002, EL4004, EL4008 EL4011, EL4012, EL4014, EL4018, EL4021, EL4022, EL4024, EL4028, EL4031, EL4032, EL4034, EL4038, EL4104, EL4114, EL4124, EL4134, EL4712, EL4732, ES4001, ES4002, ES4004, ES4008 ES4011, ES4012, ES4014, ES4018, ES4021, ES4022, ES4024, ES4028, ES4031, ES4032, ES4034, ES4038, ES4104, ES4114, ES4124, ES4134, ES4712, ES4732
Interface Module	EL5101, ES5101
Interface Module	EL5151, EL5152, ES5151, ES5152
Interface Module	EL5001, EL5002, EL6001, EL6021, EL6851, ES5001, ES6001, ES6021, ES6851
Interface Module	EL6002, EL6022, EL6731, EL6601, EL6631, EL6632, EL6652,EL6688, EL6614, EL6720, EL6751, EL6740 EL6752, EK1521, EK1561
Communication Module	EL6900, EL6910, EL6930
System Module	EL9011
Supply Module	EL9100, ES9100
Bus Supply Module	EL9400, ES9400
Bus Supply Module	EL9150, EL9160, EL9180, EL9185, EL9190, EL9195, ES9180, ES9185, ES9190, ES9195
Bus Supply Terminal	EL9186, EL9187, ES9186, ES9187
EMC shield terminal	EL9070
End Module	EL9010, EL9080
Measurement Module	EL3403, ES3403

Bruce Mahrenholz, Director North American Certification Program

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Fig. 64: EL6930 – UL Certificate, page 3

3.12 EP1908

The following pages provide an overview of the current certificates for the EP1908 TwinSAFE component.

ZERTIFIKAT ◆ CERTIFICATE ◆ 認証書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

Product Service

CERTIFICATE

No. Z10 17 10 62386 046

Holder of Certificate: **Beckhoff Automation GmbH & Co. KG**
Hülshorstweg 20
33415 Verl
GERMANY

Factory(ies): 62386

Certification Mark:

Product: **Safety components**

Model(s): **EP 1908**

Parameters:

Supply voltage:	24VDC (-15%/+20%)
Power dissipation:	3W
Protection class:	IP65, IP66, IP67

Tested according to:
2006/42/EC
EN 61508-1:2010 (SIL1-3)
EN 61508-2:2010 (SIL1-3)
EN 61508-3:2010 (SIL1-3)
EN ISO 13849-1:2015 (Cat 4, PL e)

The product was tested on a voluntary basis and complies with the essential requirements. The certification mark shown above can be affixed on the product. It is not permitted to alter the certification mark in any way. In addition the certification holder must not transfer the certificate to third parties. See also notes overleaf.

Test report no.: BV84305T

Valid until: 2022-10-19

Date, 2017-10-20 (Günter Greil)

719946

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Fig. 65: EP1908 – Z10 Functional Safety Certificate

ZERTIFIKAT ◆ CERTIFICATE ◆ 認証書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

Product Service

EC-Type Examination Certificate

No. M6A 17 07 62386 041

Holder of Certificate: **Beckhoff Automation GmbH & Co. KG**
Hülshorstweg 20
33415 Verl
GERMANY

Product: **Safety components**

Model(s): **EP 1908**

Parameters:

Supply voltage:	24VDC (-15%...+20%)
Power dissipation:	3W
Protection class:	IP65, IP66, IP67

This EC Type Examination Certificate is issued according to Article 12(3) b or 12(4) a of Council Directive 2006/42/EC relating to machinery. It confirms that the listed Annex-IV equipment complies with the principal protection requirements of the directive. It refers only to the sample submitted to TÜV SÜD Product Service GmbH for testing and certification. See also notes overleaf.

Test report no.: BV84305T

Valid until: 2022-07-27

719889

Date, 2017-07-28 (Günter Greil)

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Fig. 66: EP1908 – M6A EC-Type Examination Certificate

BECKHOFF New Automation Technology

Originalerklärung
Original declaration

EG-Konformitätserklärung

EC Declaration of Conformity

Nummer: 2017041EP1908-1, Datum: 31.07.2017
Number, Date

Hersteller *Manufacturer*	**Beckhoff Automation GmbH & Co. KG** Hülshorstweg 20, 33415 Verl, Germany
erklärt, dass das Produkt *declares that the product*	**TwinSAFE EP1908** TwinSAFE-EtherCAT-Box mit 8 fehlersicheren Eingängen *TwinSAFE EtherCAT Box with 8 fail-safe inputs*

Sicherheitsbauteil nach EG-Richtlinie 2006/42/EG, Anhang IV
safety component according to EC directive 2006/42/EC, annex IV

den einschlägigen Bestimmungen der Maschinenrichtlinie 2006/42/EG entspricht.
complies with the relevant requirements of the machinery directive 2006/42/EC.

Angewandte Normen
Applied Standards

EN 62061:2005+A1:2013	**Sicherheit von Maschinen – Funktionale Sicherheit sicherheitsbezogener elektrischer, elektronischer und programmierbarer elektronischer Steuerungssysteme** *Safety of machinery – Functional safety of safety-related electrical, electronic and programmable electronic control systems*
EN61131-2:2007	**Speicherprogrammierbare Steuerungen - Teil 2: Betriebsmittelanforderungen und Prüfungen** *Industrial-process control systems - Instruments with analogue inputs and two- or multi-state outputs - Part 2: Guidance for inspection and routine testing*
EN 50581:2012	**Technische Dokumentation zur Beurteilung von Elektro- und Elektronikgeräten hinsichtlich der Beschränkung gefährlicher Stoffe** *Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances*
EN ISO 13849-1:2015	**Sicherheit von Maschinen – Sicherheitsbezogene Teile von Steuerungen** *Safety of machinery – Safety-related parts of control systems*
EN 61000-6-2:2011	**Elektromagnetische Verträglichkeit (EMV) – Störfestigkeit für Industriebereiche** *Electromagnetic compatibility (EMC) – Immunity for industrial environments*
EN 61000-6-4:2011	**Elektromagnetische Verträglichkeit (EMV) - Störaussendung für Industriebereiche** *Electromagnetic compatibility (EMC) - Emission standard for industrial environments*

Die Übereinstimmung eines Baumusters des bezeichneten Produkts mit der EG-Richtline wurde bescheinigt von
The accordance of a production sample of the designated product with the EC directive is certified by

Benannte Stelle *Notified body*	**TÜV SÜD Product Service GmbH** Ridlerstraße 65, 80339 München, Germany
EG-Baumusterprüfbescheinigung *EC-type examination certificate*	**M6A 17 07 62386 041, 28.07.2017**

Verantwortlich für die Zusammenstellung der technischen Unterlagen
Responsible for the compilation of technical documentation

Bevollmächtigter *Authorised person*	**Beckhoff Automation GmbH & Co. KG** Hülshorstweg 20, 33415 Verl, Germany

Verl, 31.07.2017

Dipl.-Phys. Hans Beckhoff

Geschäftsführer Beckhoff Automation GmbH & Co. KG
CEO Beckhoff Automation GmbH & Co. KG

Fig. 67: EP1908 – EC Declaration of Conformity

CERTIFICATE OF COMPLIANCE

Certificate Number	20171127-E172151
Report Reference	E172151-20101216
Issue Date	2017-NOVEMBER-27

This is to certify that representative samples of the product as specified on this certificate were tested according to the current UL requirements.

Models/Product

Open Type Programmable Controllers, EtherCAT Boxes Cat. Nos.: CU26xx, EP1xxx, EP2xxx, EP3xxx, EP4xxx, EP5xxx, EP6xxx, EP8xxx, EP9xxx, EPI1xxx, EPI2xxx, EPI3xxx, EPI4xxx, EPI5xxx, EPI6xxx, EPI8xxx, EPI9xxx, ER1xxx, ER2xxx, ER3xxx, ER4xxx, ER5xxx, ER6xxx, ER8xxx, ER9xxx, ERI1xxx, ERI2xxx, ERI3xxx, ERI4xxx, ERI5xxx, ERI6xxx, ERI8xxx, ERI9xxx, EQ1xxx, EQ2xxx, EQ3xxx, EQ4xxx, EQ5xxx, EQ6xxx, EQ8xxx, EQ9xxx. Where x indicates any digit or number. All models may be followed by additional suffixes.

Bruce Mahrenholz, Director North American Certification Program

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Fig. 68: EP1xxx – UL Certificate, page 2

3.13 EP1918

The following pages provide an overview of the current certificates for the EP1918 TwinSAFE component.

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

Product Service

CERTIFICATE

No. Z10 062386 0075 Rev. 01

Holder of Certificate: **Beckhoff Automation GmbH & Co. KG**
Hülshorstweg 20
33415 Verl
GERMANY

Certification Mark:

Product: **Safety components**

Model(s): **EP1918**

Parameters:
Supply voltage: 24VDC (-15%/+20%)
Ambient temperature: -25°C...+60°C
Protection class: IP67

Tested according to:
2006/42/EC
EN 61508-1:2010 (SIL1-3)
EN 61508-2:2010 (SIL1-3)
EN 61508-3:2010 (SIL1-3)
EN 62061:2021 (max. SIL 3)
EN ISO 13849-1:2015 (Cat 4, PL e)

The product was tested on a voluntary basis and complies with the essential requirements. The certification mark shown above can be affixed on the product. It is not permitted to alter the certification mark in any way. In addition the certification holder must not transfer the certificate to third parties. This certificate is valid until the listed date, unless it is cancelled earlier. All applicable requirements of the testing and certification regulations of TÜV SÜD Group have to be complied. For details see: www.tuvsud.com/ps-cert

Test report no.: BV99693C

Valid until: 2027-11-02

Date, 2022-11-03

(Peter Weiß)

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Fig. 69: EP1918 – Z10 Functional Safety Certificate

TÜV SÜD ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

America

CERTIFICATE

No. U8V 062386 0071 Rev. 00

Holder of Certificate: **Beckhoff Automation GmbH & Co. KG**
Hülshorstweg 20
33415 Verl
GERMANY

Certification Mark:

Product: **Control Equipment**
(remote input)

This product was voluntarily tested to the relevant safety requirements referenced on this certificate. It can be marked with the certification mark above. The mark must not be altered in any way. This product certification system operated by TÜV SÜD America Inc. most closely resembles system 3 as defined in ISO/IEC 17067. Certification is based on the TÜV SÜD "Testing and Certification Regulations". TÜV SÜD America Inc. is an OSHA recognized NRTL and a Standards Council of Canada accredited Certification body.

Test report no.: 028-713154102-000

Date, 2019-12-01

(Ralph Fischer)

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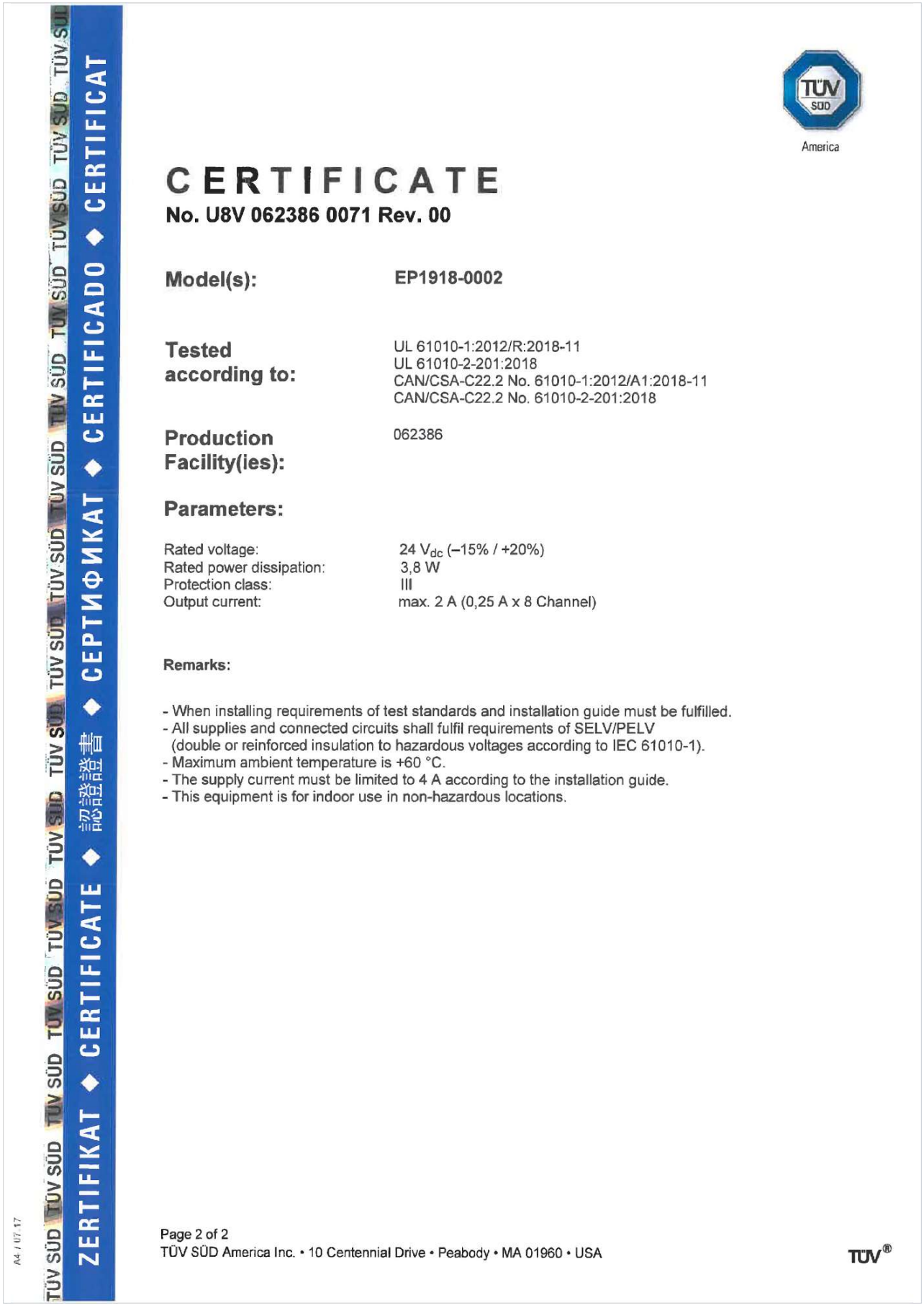
AA / 07.17

Fig. 70: EP1918 – U8V NRTL Certificate, page 1



TÜV SÜD America

CERTIFICATE

No. U8V 062386 0071 Rev. 00

Model(s):	**EP1918-0002**
Tested according to:	UL 61010-1:2012/R:2018-11 UL 61010-2-201:2018 CAN/CSA-C22.2 No. 61010-1:2012/A1:2018-11 CAN/CSA-C22.2 No. 61010-2-201:2018
Production Facility(ies):	062386

Parameters:

Rated voltage:	24 V_{dc} (–15% / +20%)
Rated power dissipation:	3,8 W
Protection class:	III
Output current:	max. 2 A (0,25 A x 8 Channel)

Remarks:

- When installing requirements of test standards and installation guide must be fulfilled.
- All supplies and connected circuits shall fulfil requirements of SELV/PELV (double or reinforced insulation to hazardous voltages according to IEC 61010-1).
- Maximum ambient temperature is +60 °C.
- The supply current must be limited to 4 A according to the installation guide.
- This equipment is for indoor use in non-hazardous locations.

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

A4 / 07.17

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Fig. 71: EP1918 – U8V NRTL Certificate, page 2

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

TÜV SÜD
Product Service

EC-Type Examination Certificate

No. M6A 062386 0076 Rev. 01

Holder of Certificate: **Beckhoff Automation GmbH & Co. KG**
Hülshorstweg 20
33415 Verl
GERMANY

Product: **Safety components**

Model(s): **EP1918**

Parameters:

Supply voltage:	24VDC (-15%/+20%)
Ambient temperature:	-25°C...+60°C
Protection class:	IP67

This EC Type Examination Certificate is issued according to Article 12(3) b or 12(4) a of Council Directive 2006/42/EC relating to machinery. It confirms that the listed Annex-IV equipment complies with the principal protection requirements of the directive. It refers only to the sample submitted to TÜV SÜD Product Service GmbH for testing and certification. For details see: www.tuvsud.com/ps-cert

Test report no.: BV99693C

Valid until: 2027-11-02

Date, 2022-11-03

(Peter Weiß)

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Fig. 72: EP1918 – M6A EC-Type Examination Certificate

BECKHOFF New Automation Technology

Originalerklärung
Original declaration

EG-Konformitätserklärung

EC Declaration of Conformity

Nummer: 20200076EP1918-2, Datum: 09.11.2022
Number, Date

Hersteller *Manufacturer*	**Beckhoff Automation GmbH & Co. KG** Hülshorstweg 20, 33415 Verl, Germany
erklärt, dass das Produkt *declares that the product*	**TwinSAFE EP1918** TwinSAFE-EtherCAT-Box mit 8 sicheren Eingängen, 24V DC *TwinSAFE-EtherCAT-Box with 8 safe inputs, 24V DC*

den Bestimmungen der folgenden EG-Richtlinien entspricht:
complies with the relevant requirements of the following EC directives:

2006/42/EG *2006/42/EC*	**Richtlinie 2006/42/EG des Europäischen Parlaments und des Rates vom 17. Mai 2006 über Maschinen und zur Änderung der Richtlinie 95/16/EG (Neufassung)** *Directive 2006/42/EC of the European Parliament and of the Council of 17 May 2006 on machinery, and amending Directive 95/16/EC (recast)*
2011/65/EU *2011/65/EU*	**Richtlinie 2011/65/EU des Europäischen Parlaments und des Rates vom 8. Juni 2011 zur Beschränkung der Verwendung bestimmter gefährlicher Stoffe in Elektro- und Elektronikgeräten** *Directive 2011/65/EU of the European Parliament and of the Council of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment (recast)*
2014/30/EU *2014/30/EU*	**Richtlinie 2014/30/EU des Europäischen Parlaments und des Rates vom 26. Februar 2014 zur Harmonisierung der Rechtsvorschriften der Mitgliedstaaten über die elektromagnetische Verträglichkeit (Neufassung)** *Directive 2014/30/EU of the European Parliament and of the Council of 26 February 2014 on the harmonisation of the laws of the Member States relating to electromagnetic compatibility (recast)*

Die Konformität mit den Bestimmungen der genannten Richtlinien wird durch Einhaltung der folgenden Normen nachgewiesen:
The conformity with the listed directives is proved by compliance with the following standards:

EN ISO 13849-1:2015 **EN 62061**:2005/A2:2015	**EN IEC 63000**:2018	**EN 61000-6-2**:2005 **EN 61000-6-4**:2007 **EN 61131-2**:2007

Die Übereinstimmung eines Baumusters des bezeichneten Produkts mit den EU-Richtlinien wurde bescheinigt von
The accordance of a production sample of the designated product with the EC directives is certified by

Richtlinie *Directive*	**Benannte Stelle** *Notified Body*	**Baumusterprüfbescheinigung** *type examination certificate*
2006/42/EG *2006/42/EC*	**TÜV SÜD Product Service GmbH** Ridlerstraße 65, 80339 München, Germany	**M6A 062386 0076 Rev. 01** 2022-11-03

Verantwortlich für die Zusammenstellung der technischen Unterlagen
Responsible for the compilation of technical documentation

Bevollmächtigter
Authorised person

Beckhoff Automation GmbH & Co. KG
Hülshorstweg 20, 33415 Verl, Germany

Verl, 22.11.2022
Ort / Datum
Place / Date

Dipl.-Phys. Hans Beckhoff, Geschäftsführer
Dipl.-Phys. Hans Beckhoff, CEO

Fig. 73: EP1918 – EC Declaration of Conformity

NOTICE OF COMPLETION AND AUTHORIZATION TO APPLY THE UL MARK

2020-12-07

Beckhoff Automation GmbH & Co. KG
Michael Grosseschallau
Huelshorstweg 20
VERL, 33415 Germany

Our Reference:	File E172151, Vol. D2	Project Number:	4789544300
Your Reference:	Model EP1918-0002, Control equipment (remote I/O modules)		
Project Scope:	UL Listing to the following standard(s): UL 61010-1 - Edition 3 - Revision Date 2019/07/19 CSA C22.2 NO. 61010-1-12 - Edition 3 - Revision Date 2018/11		

Dear Michael Grosseschallau:

UL has completed the investigation under the above project and confirmed compliance of your product(s) with UL requirements. We appreciate that you have a choice of certification providers and thank you for choosing UL.

This letter temporarily supplements the UL Follow-Up Services Procedure and serves as authorization to apply the UL Mark at the factory location(s) identified on the Authorization Page of UL File E172151, Vol. D2. You are required to send a copy of this letter to all manufacturing locations authorized under UL File E172151, Vol. D2. Products that bear the UL Mark must be identical to those submitted to UL for evaluation and found to be compliant with UL requirements.

Since you have Manufacturing factories that manufacture this product at a different location than above, please inform each factory listed below that they need to access their UL FUS Procedure via myUL, or have them contact us to email the Procedure to them.

Beckhoff Automation GmbH & Co. KG

Additional requirements related to the responsibilities of the Applicant and Manufacturer can be found under Additional Resources at https://www.ul.com/fus.

The Follow-Up Services Procedure covering your product(s) will typically be provided by UL within 10 business days. Any information and documentation provided to you involving UL Mark services are provided on behalf of UL LLC (UL) or any authorized licensee of UL.

A UL certification is a valuable marketing tool meaning your product or company has successfully met stringent requirements. We encourage you to use your UL Mark and certification in your marketing activities. You can find information on how to accurately promote your UL certification at https://www.ul.com/marketing.

If you have any questions, please contact me or any of our customer service representatives. And, congratulations again on your achievement!

Very truly yours,

Marcin Kuza
+48 (0)22 336 3365
Senior Project Engineer
Marcin.Kuza@ul.com

Reviewed by:

Bruce Mahrenholz
CPO Director
Certification Program Office
UL LLC

This is an electronically generated letter. Signatures are not required for this document to be valid.

Page 1 of 1

Fig. 74: EP1918 – UL Certificate

3.14 EP1957

The following pages provide an overview of the current certificates for the EP1957 TwinSAFE component.

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

Product Service

CERTIFICATE

No. Z10 062386 0057 Rev. 01

Holder of Certificate: **Beckhoff Automation GmbH & Co. KG**
Hülshorstweg 20
33415 Verl
GERMANY

Certification Mark:

Product: **Safety components**

Model(s): **EP1957**

Parameters:
Supply voltage: 24VDC (-15%/+20%)
Ambient temperature: -25°C...+60°C
Protection class: IP67

Tested according to:
2006/42/EC
EN 61508-1:2010 (SIL1-3)
EN 61508-2:2010 (SIL1-3)
EN 61508-3:2010 (SIL1-3)
EN 62061:2021 (max. SIL 3)
EN ISO 13849-1:2015 (Cat 4, PL e)

The product was tested on a voluntary basis and complies with the essential requirements. The certification mark shown above can be affixed on the product. It is not permitted to alter the certification mark in any way. In addition the certification holder must not transfer the certificate to third parties. This certificate is valid until the listed date, unless it is cancelled earlier. All applicable requirements of the testing and certification regulations of TÜV SÜD Group have to be complied. For details see: www.tuvsud.com/ps-cert

Test report no.: BV99709C
Valid until: 2027-11-08

Date, 2022-11-10

(Peter Weiß)

Page 1 of 1
TÜV SÜD Product Service GmbH • Certification Body • Ridlerstraße 65 • 80339 Munich • Germany

Fig. 75: EP1957 – Z10 Functional Safety Certificate

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

Product Service

EC-Type Examination Certificate

No. M6A 062386 0058 Rev. 01

Holder of Certificate: **Beckhoff Automation GmbH & Co. KG**
Hülshorstweg 20
33415 Verl
GERMANY

Product: **Safety components**

Model(s): **EP1957**

Parameters:

Supply voltage:	24VDC (-15%/+20%)
Ambient temperature:	-25°C...+60°C
Protection class:	IP67

This EC Type Examination Certificate is issued according to Article 12(3) b or 12(4) a of Council Directive 2006/42/EC relating to machinery. It confirms that the listed Annex-IV equipment complies with the principal protection requirements of the directive. It refers only to the sample submitted to TÜV SÜD Product Service GmbH for testing and certification. For details see: www.tuvsud.com/ps-cert

Test report no.: BV99709C

Valid until: 2027-11-08

Date, 2022-11-10

(Peter Weiß)

Page 1 of 1
TÜV SÜD Product Service GmbH is Notified Body according to Council Directive 2006/42/EC relating to machinery, notified by publication in the Offical Journal of the EC with identification No.0123.

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TÜV®

Fig. 76: EP1957 – M6A EC-Type Examination Certificate

BECKHOFF New Automation Technology

Originalerklärung
Original declaration

EG-Konformitätserklärung

EC Declaration of Conformity

Nummer: 20180058EP1957-2, Datum: 16.11.2022
Number, Date

Hersteller *Manufacturer*	**Beckhoff Automation GmbH & Co. KG** Hülshorstweg 20, 33415 Verl, Germany
erklärt, dass das Produkt *declares that the product*	**TwinSAFE EP1957** TwinSAFE-EtherCAT-Box mit 8 sicheren Ein- und 4 sicheren Ausgängen 24V DC *TwinSAFE-EtherCAT-Box with 8 safe inputs and 4 safe outputs, 24V DC*

den Bestimmungen der folgenden EG-Richtlinien entspricht:
complies with the relevant requirements of the following EC directives:

2006/42/EG *2006/42/EC*	**Richtlinie 2006/42/EG des Europäischen Parlaments und des Rates vom 17. Mai 2006 über Maschinen und zur Änderung der Richtlinie 95/16/EG (Neufassung)** *Directive 2006/42/EC of the European Parliament and of the Council of 17 May 2006 on machinery, and amending Directive 95/16/EC (recast)*
2011/65/EU *2011/65/EU*	**Richtlinie 2011/65/EU des Europäischen Parlaments und des Rates vom 8. Juni 2011 zur Beschränkung der Verwendung bestimmter gefährlicher Stoffe in Elektro- und Elektronikgeräten** *Directive 2011/65/EU of the European Parliament and of the Council of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment (recast)*
2014/30/EU *2014/30/EU*	**Richtlinie 2014/30/EU des Europäischen Parlaments und des Rates vom 26. Februar 2014 zur Harmonisierung der Rechtsvorschriften der Mitgliedstaaten über die elektromagnetische Verträglichkeit (Neufassung)** *Directive 2014/30/EU of the European Parliament and of the Council of 26 February 2014 on the harmonisation of the laws of the Member States relating to electromagnetic compatibility (recast)*

Die Konformität mit den Bestimmungen der genannten Richtlinien wird durch Einhaltung der folgenden Normen nachgewiesen:
The conformity with the listed directives is proved by compliance with the following standards:

EN ISO 13849-1:2015	**EN IEC 63000**:2018	**EN 61000-6-2**:2005
EN 62061:2005/A2:2015		**EN 61000-6-4**:2007
		EN 61131-2:2007

Die Übereinstimmung eines Baumusters des bezeichneten Produkts mit den EU-Richtlinien wurde bescheinigt von
The accordance of a production sample of the designated product with the EC directives is certified by

Richtlinie *Directive*	**Benannte Stelle** *Notified Body*	**Baumusterprüfbescheinigung** *type examination certificate*
2006/42/EG *2006/42/EC*	**TÜV SÜD Product Service GmbH** Ridlerstraße 65, 80339 München, Germany	**M6A 062386 0058 Rev. 01** 2022-11-10

Verantwortlich für die Zusammenstellung der technischen Unterlagen
Responsible for the compilation of technical documentation

Bevollmächtigter
Authorised person

Beckhoff Automation GmbH & Co. KG
Hülshorstweg 20, 33415 Verl, Germany

Verl, 17.11.2022

Ort / Datum
Place / Date

Dipl.-Phys. Hans Beckhoff, Geschäftsführer
Dipl.-Phys. Hans Beckhoff, CEO

Fig. 77: EP1957 – EC Declaration of Conformity

CERTIFICATE OF COMPLIANCE

Certificate Number	20171127-E172151
Report Reference	E172151-20101216
Issue Date	2017-NOVEMBER-27

This is to certify that representative samples of the product as specified on this certificate were tested according to the current UL requirements.

Models/Product

Open Type Programmable Controllers, EtherCAT Boxes Cat. Nos.: CU26xx, EP1xxx, EP2xxx, EP3xxx, EP4xxx, EP5xxx, EP6xxx, EP8xxx, EP9xxx, EPI1xxx, EPI2xxx, EPI3xxx, EPI4xxx, EPI5xxx, EPI6xxx, EPI8xxx, EPI9xxx, ER1xxx, ER2xxx, ER3xxx, ER4xxx, ER5xxx, ER6xxx, ER8xxx, ER9xxx, ERI1xxx, ERI2xxx, ERI3xxx, ERI4xxx, ERI5xxx, ERI6xxx, ERI8xxx, ERI9xxx, EQ1xxx, EQ2xxx, EQ3xxx, EQ4xxx, EQ5xxx, EQ6xxx, EQ8xxx, EQ9xxx. Where x indicates any digit or number. All models may be followed by additional suffixes.

Bruce Mahrenholz, Director North American Certification Program

UL LLC

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Page 2 of 2

Fig. 78: EP1xxx – UL Certificate, page 2

3.15 EP2918

The following pages provide an overview of the current certificates for the EP2918 TwinSAFE component.

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

Product Service

CERTIFICATE

No. Z10 062386 0067 Rev. 01

Holder of Certificate: **Beckhoff Automation GmbH & Co. KG**
Hülshorstweg 20
33415 Verl
GERMANY

Certification Mark:

Product: **Safety components**

Model(s): **EP2918**

Parameters:
Supply voltage: 24VDC (-15%/+20%)
Ambient temperature: -25°C...+60°C
Protection class: IP67

Tested according to:
2006/42/EC
EN 61508-1:2010 (SIL1-3)
EN 61508-2:2010 (SIL1-3)
EN 61508-3:2010 (SIL1-3)
EN 62061:2021 (max. SIL 3)
EN ISO 13849-1:2015 (Cat 4, PL e)

The product was tested on a voluntary basis and complies with the essential requirements. The certification mark shown above can be affixed on the product. It is not permitted to alter the certification mark in any way. In addition the certification holder must not transfer the certificate to third parties. This certificate is valid until the listed date, unless it is cancelled earlier. All applicable requirements of the testing and certification regulations of TÜV SÜD Group have to be complied. For details see: www.tuvsud.com/ps-cert

Test report no.: BV99698C
Valid until: 2027-11-08

Date, 2022-11-10

(Peter Weiß)

Page 1 of 1
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Fig. 79: EP2918 – Z10 Functional Safety Certificate

TÜV SÜD ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

America

CERTIFICATE

No. U8V 062386 0069 Rev. 00

Holder of Certificate: **Beckhoff Automation GmbH & Co. KG**
Hülshorstweg 20
33415 Verl
GERMANY

Certification Mark:

C US

Product: **Control Equipment (remote output)**

This product was voluntarily tested to the relevant safety requirements referenced on this certificate. It can be marked with the certification mark above. The mark must not be altered in any way. This product certification system operated by TÜV SÜD America Inc. most closely resembles system 3 as defined in ISO/IEC 17067. Certification is based on the TÜV SÜD "Testing and Certification Regulations". TÜV SÜD America Inc. is an OSHA recognized NRTL and a Standards Council of Canada accredited Certification body.

Test report no.: 028-713154070-000

Date, 2019-11-25

(Ralph Fischer)

Page 1 of 2
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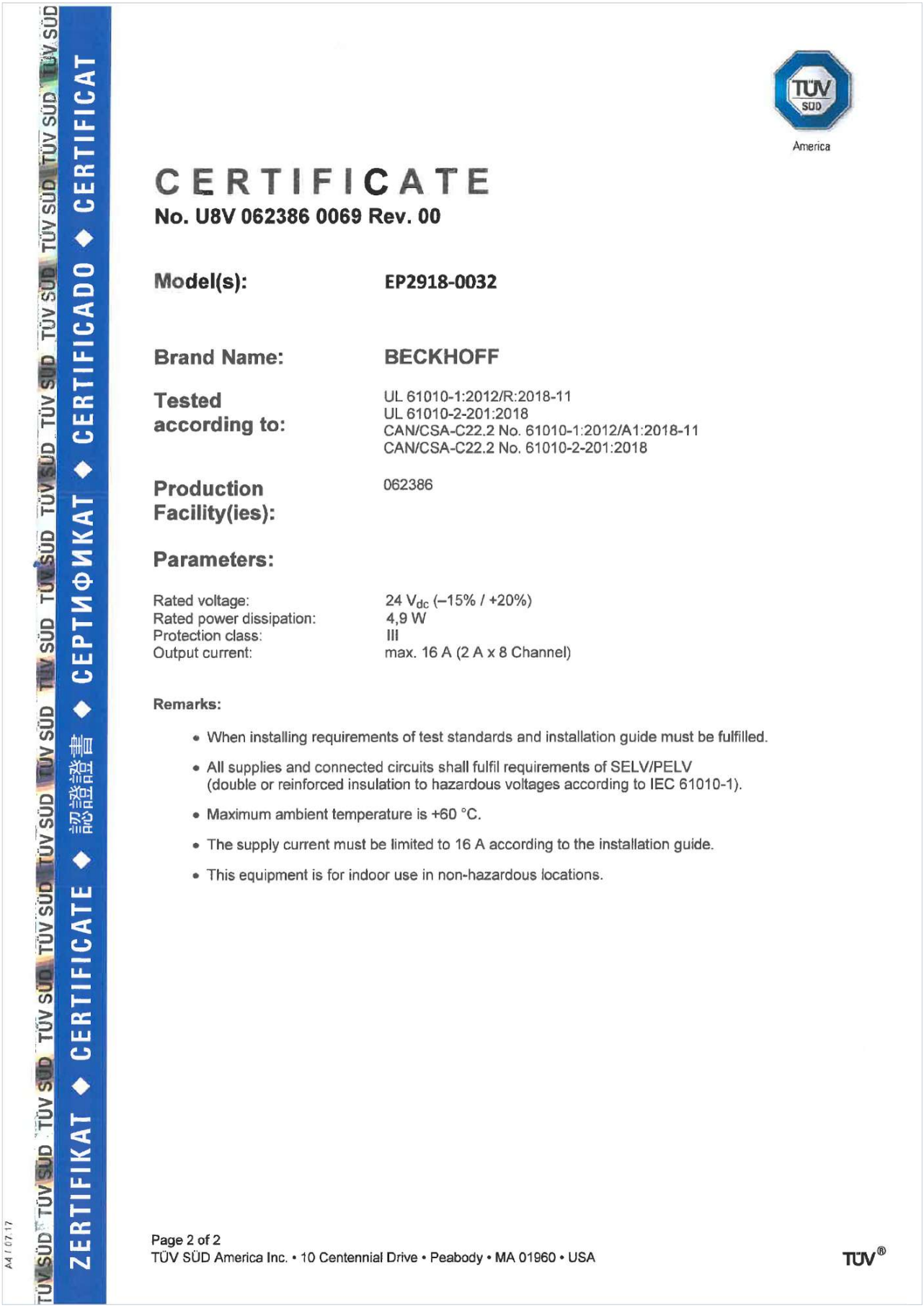
A4 / 07.17

Fig. 80: EP2918 – U8V NRTL Certificate, page 1



TÜV SÜD ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

TÜV SÜD America

CERTIFICATE

No. U8V 062386 0069 Rev. 00

Model(s):	**EP2918-0032**
Brand Name:	**BECKHOFF**
Tested according to:	UL 61010-1:2012/R:2018-11 UL 61010-2-201:2018 CAN/CSA-C22.2 No. 61010-1:2012/A1:2018-11 CAN/CSA-C22.2 No. 61010-2-201:2018
Production Facility(ies):	062386

Parameters:

Rated voltage:	24 V_{dc} (–15% / +20%)
Rated power dissipation:	4,9 W
Protection class:	III
Output current:	max. 16 A (2 A x 8 Channel)

Remarks:

- When installing requirements of test standards and installation guide must be fulfilled.
- All supplies and connected circuits shall fulfil requirements of SELV/PELV (double or reinforced insulation to hazardous voltages according to IEC 61010-1).
- Maximum ambient temperature is +60 °C.
- The supply current must be limited to 16 A according to the installation guide.
- This equipment is for indoor use in non-hazardous locations.

A4 | 07.17

Page 2 of 2
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Fig. 81: EP2918 – U8V NRTL Certificate, page 2

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

Product Service

EC-Type Examination Certificate

No. M6A 062386 0068 Rev. 01

Holder of Certificate: **Beckhoff Automation GmbH & Co. KG**
Hülshorstweg 20
33415 Verl
GERMANY

Product: **Safety components**

Model(s): **EP2918**

Parameters:

Supply voltage:	24VDC (-15%/+20%)
Ambient temperature:	-25°C...+60°C
Protection class:	IP67

This EC Type Examination Certificate is issued according to Article 12(3) b or 12(4) a of Council Directive 2006/42/EC relating to machinery. It confirms that the listed Annex-IV equipment complies with the principal protection requirements of the directive. It refers only to the sample submitted to TÜV SÜD Product Service GmbH for testing and certification. For details see: www.tuvsud.com/ps-cert

Test report no.: BV99698C

Valid until: 2027-11-08

Date, 2022-11-10

(Peter Weiß)

Page 1 of 1
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Fig. 82: EP2918 – M6A EC-Type Examination Certificate

BECKHOFF New Automation Technology

Originalerklärung
Original declaration

EG-Konformitätserklärung

EC Declaration of Conformity

Nummer: 20200068EP2918-2, Datum: 16.11.2022
Number, Date

Hersteller *Manufacturer*	**Beckhoff Automation GmbH & Co. KG** Hülshorstweg 20, 33415 Verl, Germany
erklärt, dass das Produkt *declares that the product*	**TwinSAFE EP2918** TwinSAFE-EtherCAT-Box mit 8 sicheren Ausgängen, 24V DC *TwinSAFE-EtherCAT-Box with 8 safe outputs, 24V DC*

den Bestimmungen der folgenden EG-Richtlinien entspricht:
complies with the relevant requirements of the following EC directives:

2006/42/EG *2006/42/EC*	**Richtlinie 2006/42/EG des Europäischen Parlaments und des Rates vom 17. Mai 2006 über Maschinen und zur Änderung der Richtlinie 95/16/EG (Neufassung)** *Directive 2006/42/EC of the European Parliament and of the Council of 17 May 2006 on machinery, and amending Directive 95/16/EC (recast)*
2011/65/EU *2011/65/EU*	**Richtlinie 2011/65/EU des Europäischen Parlaments und des Rates vom 8. Juni 2011 zur Beschränkung der Verwendung bestimmter gefährlicher Stoffe in Elektro- und Elektronikgeräten** *Directive 2011/65/EU of the European Parliament and of the Council of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment (recast)*
2014/30/EU *2014/30/EU*	**Richtlinie 2014/30/EU des Europäischen Parlaments und des Rates vom 26. Februar 2014 zur Harmonisierung der Rechtsvorschriften der Mitgliedstaaten über die elektromagnetische Verträglichkeit (Neufassung)** *Directive 2014/30/EU of the European Parliament and of the Council of 26 February 2014 on the harmonisation of the laws of the Member States relating to electromagnetic compatibility (recast)*

Die Konformität mit den Bestimmungen der genannten Richtlinien wird durch Einhaltung der folgenden Normen nachgewiesen:
The conformity with the listed directives is proved by compliance with the following standards:

EN ISO 13849-1:2015	**EN IEC 63000**:2018	**EN 61000-6-2**:2005
EN 62061:2005/A2:2015		**EN 61000-6-4**:2007
		EN 61131-2:2007

Die Übereinstimmung eines Baumusters des bezeichneten Produkts mit den EU-Richtlinien wurde bescheinigt von
The accordance of a production sample of the designated product with the EC directives is certified by

Richtlinie *Directive*	**Benannte Stelle** *Notified Body*	**Baumusterprüfbescheinigung** *type examination certificate*
2006/42/EG *2006/42/EC*	**TÜV SÜD Product Service GmbH** Ridlerstraße 65, 80339 München, Germany	**M6A 062386 0068 Rev. 01** 2022-11-10

Verantwortlich für die Zusammenstellung der technischen Unterlagen
Responsible for the compilation of technical documentation

Bevollmächtigter
Authorised person

Beckhoff Automation GmbH & Co. KG
Hülshorstweg 20, 33415 Verl, Germany

Verl, 12.11.2022

Ort / Datum
Place / Date

Dipl.-Phys. Hans Beckhoff, Geschäftsführer
Dipl.-Phys. Hans Beckhoff, CEO

Fig. 83: EP2918 – EC Declaration of Conformity

3.16 EK1914

The following pages provide an overview of the current certificates for the EK1914 TwinSAFE component.

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

Product Service

CERTIFICATE

No. Z10 062386 0045 Rev. 01

Holder of Certificate: **Beckhoff Automation GmbH & Co. KG**
Hülshorstweg 20
33415 Verl
GERMANY

Certification Mark:

Product: **Safety components**

Model(s): **EK1914**

Parameters: Supply voltage: 24VDC (-15%...+20%)
Power dissipation: 1,7W
Protection class: IP20

Tested according to: EN ISO 13849-1:2015 (Cat. 4, PL e)

The product was tested on a voluntary basis and complies with the essential requirements. The certification mark shown above can be affixed on the product. It is not permitted to alter the certification mark in any way. In addition the certification holder must not transfer the certificate to third parties. This certificate is valid until the listed date, unless it is cancelled earlier. All applicable requirements of the testing and certification regulations of TÜV SÜD Group have to be complied. For details see: www.tuvsud.com/ps-cert

Test report no.: BV85712T

Valid until: 2028-08-23

Date, 2023-08-25

(Guido Neumann)

Page 1 of 1
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Fig. 84: EK1914 – Z10 EC-Type Examination Certificate

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

Product Service

EC-Type Examination Certificate

No. M6A 062386 0040 Rev. 01

Holder of Certificate:	**Beckhoff Automation GmbH & Co. KG** Hülshorstweg 20 33415 Verl GERMANY
Product:	**Safety components**
Model(s):	**EK1914**
Parameters:	Supply voltage: 24VDC (-15%...+20%) Power dissipation: 1,7W Protection class: IP20

This EC Type Examination Certificate is issued according to Article 12(3) b or 12(4) a of Council Directive 2006/42/EC relating to machinery. It confirms that the listed Annex-IV equipment complies with the principal protection requirements of the directive. It refers only to the sample submitted to TÜV SÜD Product Service GmbH for testing and certification. For details see: www.tuvsud.com/ps-cert

Test report no.: BV85712T

Valid until: 2028-08-23

Date, 2023-08-25

(Guido Neumann)

Page 1 of 1

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Fig. 85: EK1914 – EC-Type Examination Certificate

BECKHOFF New Automation Technology

Originalerklärung
Original declaration

EG-Konformitätserklärung

EC Declaration of Conformity

Nummer: 2017040EK1914-1, Datum: 31.07.2017
Number, Date

Hersteller *Manufacturer*	**Beckhoff Automation GmbH & Co. KG** Hülshorstweg 20, 33415 Verl, Germany
erklärt, dass das Produkt *declares that the product*	**TwinSAFE EK1914** TwinSAFE-Buskoppler mit zwei fehlersicheren Eingängen und zwei fehlersicheren Ausgängen *TwinSAFE Bus Coupler with two fail-safe inputs and two fail-safe outputs*

Sicherheitsbauteil nach EG-Richtlinie 2006/42/EG, Anhang IV
safety component according to EC directive 2006/42/EC, annex IV

den einschlägigen Bestimmungen der Maschinenrichtlinie 2006/42/EG entspricht.
complies with the relevant requirements of the machinery directive 2006/42/EC.

Angewandte Normen
Applied Standards

EN 62061:2005+A1:2013	**Sicherheit von Maschinen – Funktionale Sicherheit sicherheitsbezogener elektrischer, elektronischer und programmierbarer elektronischer Steuerungssysteme** *Safety of machinery – Functional safety of safety-related electrical, electronic and programmable electronic control systems*
EN61131-2:2007	**Speicherprogrammierbare Steuerungen - Teil 2: Betriebsmittelanforderungen und Prüfungen** *Industrial-process control systems - Instruments with analogue inputs and two- or multi-state outputs - Part 2: Guidance for inspection and routine testing*
EN 50581:2012	**Technische Dokumentation zur Beurteilung von Elektro- und Elektronikgeräten hinsichtlich der Beschränkung gefährlicher Stoffe** *Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances*
EN ISO 13849-1:2015	**Sicherheit von Maschinen – Sicherheitsbezogene Teile von Steuerungen** *Safety of machinery – Safety-related parts of control systems*
EN 61000-6-2:2011	**Elektromagnetische Verträglichkeit (EMV) – Störfestigkeit für Industriebereiche** *Electromagnetic compatibility (EMC) – Immunity for industrial environments*
EN 61000-6-4:2011	**Elektromagnetische Verträglichkeit (EMV) - Störaussendung für Industriebereiche** *Electromagnetic compatibility (EMC) - Emission standard for industrial environments*

Die Übereinstimmung eines Baumusters des bezeichneten Produkts mit der EG-Richtline wurde bescheinigt von
The accordance of a production sample of the designated product with the EC directive is certified by

Benannte Stelle *Notified body*	**TÜV SÜD Product Service GmbH** Ridlerstraße 65, 80339 München, Germany
EG-Baumusterprüfbescheinigung *EC-type examination certificate*	**M6A 17 07 62386 040, 28.07.2017**

Verantwortlich für die Zusammenstellung der technischen Unterlagen
Responsible for the compilation of technical documentation

Bevollmächtigter *Authorised person*	**Beckhoff Automation GmbH & Co. KG** Hülshorstweg 20, 33415 Verl, Germany

Verl, 31.07.2017

Dipl.-Phys. Hans Beckhoff

Geschäftsführer Beckhoff Automation GmbH & Co. KG
CEO Beckhoff Automation GmbH & Co. KG

Fig. 86: EK1914 – EC Declaration of Conformity

CERTIFICATE OF COMPLIANCE

Certificate Number 20180309-E172151
Report Reference E172151-20070727
Issue Date 2018-MARCH-09

Memory Module	EL6080, EL6070
Digital Input Module	EL1804, EL1808, EL1809, EL1814, EL1819, EL1889
Digital Input Module	EL1862, EL1872
Digital Input/Output Module	EL1859
Digital sensor input/output module	EL6224
Potential distribution modules	EL9184, EL9188, EL9189, EL9181, EL9182, EL9183
Surge Filtering Module	EL9540, EL9550
Digital output module	EL2808, EL2809
Digital input/output module	EL2872
Digital output module	EL2889
Bus supply module	EL9410
Supply module	EL9200, EL9210
Bus Coupler with integrated Digital I/O	EK1814, EK1818, EK1828
Bus Coupler with integrated Digital I/O	EK1914
Measuring modules	EL3413, EL3433
Digital input/output module	EL1259
Digital output module	EL2202, ES2202
Digital output module	EL2258
Digital output module	EL2262, ES2262
Relay output module	EL2624, ES2624
Relay output module	EL2652, ES2652
Digital output module	EL2784, EL2794
Digital output module	EL2788, EL2798
Digital output module	EL2819
Digital output module	EL2828
Monitoring module	EL3773
EtherCAT bridge	EL6692, EL6695
Supply module [eng. note – not for E-bus]	EL9505, EL9508, EL9510, EL9512, EL9515, ES9505, ES9508, ES9510, ES9512, ES9515
Supply module [eng. note – not for E-bus]	EL9560

Bruce Mahrenholz, Director North American Certification Program

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Fig. 87: EK1914 – UL Certificate, page 4

3.17 EK1960

The following pages provide an overview of the current certificates for the EK1960 TwinSAFE component.

ZERTIFIKAT ◆ CERTIFICATE ◆ 認証書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

Product Service

CERTIFICATE

No. Z10 17 04 62386 036

Holder of Certificate: Beckhoff Automation GmbH & Co. KG
Hülshorstweg 20
33415 Verl
GERMANY

Factory(ies): 62386

Certification Mark:

Product: Safety components
TwinSAFE-Compact-Controller

Model(s): EK1960

Parameters:

Supply voltage:	24VDC (-15%/+20%)
Protection class:	IP 20
Ambient temperature:	-25°C ... +55°C

Tested according to:
EN ISO 13849-1:2015 (up to Cat 4, PL e)
EN 61508-1:2010 (up to SIL 3)
EN 61508-2:2010 (up to SIL 3)
EN 61508-3:2010 (up to SIL 3)
EN 61508-4:2010 (up to SIL 3)
EN 62061:2005/A2:2015 (up to SILCL 3)

The product was tested on a voluntary basis and complies with the essential requirements. The certification mark shown above can be affixed on the product. It is not permitted to alter the certification mark in any way. In addition the certification holder must not transfer the certificate to third parties. See also notes overleaf.

Test report no.: BV90899T

Valid until: 2022-04-20

719811

Date, 2017-04-21 (Christian Dirmeier)

Page 1 of 1

TÜV SÜD Product Service GmbH · Zertifizierstelle · Ridlerstraße 65 · 80339 München · Germany

A1 / 04.11

Fig. 88: EK1960 – Z10 Functional Safety Certificate

ZERTIFIKAT ◆ CERTIFICATE ◆ 認証書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

Product Service

EC-Type Examination Certificate

No. M6A 17 07 62386 039

Holder of Certificate: **Beckhoff Automation GmbH & Co. KG**
Hülshorstweg 20
33415 Verl
GERMANY

Product: **Safety components**
TwinSAFE-Compact-Controller

Model(s): **EK1960**

Parameters:

Supply voltage:	24VDC (-15%/+20%)
Protection class:	IP 20
Ambient temperature:	-25°C ... +55°C

This EC Type Examination Certificate is issued according to Article 12(3) b or 12(4) a of Council Directive 2006/42/EC relating to machinery. It confirms that the listed Annex-IV equipment complies with the principal protection requirements of the directive. It refers only to the sample submitted to TÜV SÜD Product Service GmbH for testing and certification. See also notes overleaf.

Test report no.: BV90899T

Valid until: 2022-07-04

719862

Date, 2017-07-05 (Peter Weiss)

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A1 / 04.11

Fig. 89: EK1960 – M6A EC-Type Examination Certificate

BECKHOFF New Automation Technology

Originalerklärung
Original declaration

EG-Konformitätserklärung

EC Declaration of Conformity

Nummer: 2017039EK1960-2, Datum: 19.06.2018
Number, Date

Hersteller *Manufacturer*	**Beckhoff Automation GmbH & Co. KG** Hülshorstweg 20, 33415 Verl, Germany
erklärt, dass das Produkt *declares that the product*	**TwinSAFE-Compact-Controller EK1960** Compact-Controller mit 20 sicheren Eingängen und 24 sicheren Ausgängen *Compact-Controller with 20 safe inputs and 24 safe outputs*

Sicherheitsbauteil nach EG-Richtlinie 2006/42/EG, Anhang IV
safety component according to EC directive 2006/42/EC, annex IV

den einschlägigen Bestimmungen der Maschinenrichtlinie 2006/42/EG entspricht.
complies with the relevant requirements of the machinery directive 2006/42/EC.

Angewandte Normen
Applied Standards

EN 62061:2005+A2:2015	**Sicherheit von Maschinen – Funktionale Sicherheit sicherheitsbezogener elektrischer, elektronischer und programmierbarer elektronischer Steuerungssysteme** *Safety of machinery – Functional safety of safety-related electrical, electronic and programmable electronic control systems*
EN 61131-2:2007	**Speicherprogrammierbare Steuerungen - Teil 2: Betriebsmittelanforderungen und Prüfungen** *Industrial-process control systems - Instruments with analogue inputs and two- or multi-state outputs - Part 2: Guidance for inspection and routine testing*
EN 50581:2012	**Technische Dokumentation zur Beurteilung von Elektro- und Elektronikgeräten hinsichtlich der Beschränkung gefährlicher Stoffe** *Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances*
EN ISO 13849-1:2015	**Sicherheit von Maschinen – Sicherheitsbezogene Teile von Steuerungen** *Safety of machinery – Safety-related parts of control systems*
EN 61000-6-2:2011	**Elektromagnetische Verträglichkeit (EMV) – Störfestigkeit für Industriebereiche** *Electromagnetic compatibility (EMC) – Immunity for industrial environments*
EN 61000-6-4:2011	**Elektromagnetische Verträglichkeit (EMV) - Störaussendung für Industriebereiche** *Electromagnetic compatibility (EMC) - Emission standard for industrial environments*

Die Übereinstimmung eines Baumusters des bezeichneten Produkts mit der EG-Richtlinie wurde bescheinigt von
The accordance of a production sample of the designated product with the EC directive is certified by

Benannte Stelle *Notified body*	**TÜV SÜD Product Service GmbH** Ridlerstraße 65, 80339 München, Germany
EG-Baumusterprüfbescheinigung *EC-type examination certificate*	**M6A 17 07 62386 039, 05.07.2017**

Verantwortlich für die Zusammenstellung der technischen Unterlagen
Responsible for the compilation of technical documentation

Bevollmächtigter *Authorised person*	**Beckhoff Automation GmbH & Co. KG** Hülshorstweg 20, 33415 Verl, Germany

Verl, 19.06.2018

Dipl.-Phys. Hans Beckhoff

Geschäftsführer Beckhoff Automation GmbH & Co. KG
CEO Beckhoff Automation GmbH & Co. KG

Fig. 90: EK1960 – EC Declaration of Conformity

CERTIFICATE OF COMPLIANCE

Certificate Number 20180309-E172151
Report Reference E172151-20070727
Issue Date 2018-MARCH-09

This is to certify that representative samples of the product as specified on this certificate were tested according to the current UL requirements.

USL and CNL - Open type, Programmable controller, BECKHOFF GmbH

EtherCAT Bus Terminal System, series EK, EL or ES, consisting of the following modules/Cat. Nos.:

Models series ES represent models series EL except for detachable terminals as described in this procedure, e.g. ES1002 represents EL1002, etc.

	Cat. Nos.
BECKHOFF EtherCAT Bus Terminal System	complete system
Bus Coupler	EK1100, EK1100-0008, EK1101
Extension Module	EK1110
Ethercat Junction Module	EK1122, EK1122-0008
Digital Input Module	EL1002, EL1004, EL1008, EL1012, EL1014, EL1018, EL1024, EL1034, EL1084, EL1088, EL1094, EL1098, EL1104, EL1114, EL1134, EL1144, EL1202, EL1252, EL1252-0050, ES1002, ES1004, ES1008, ES1012, ES1014, ES1018, ES1024, ES1034, ES1084, ES1088, ES1094, ES1098, ES1104, ES1134, ES1144, ES1202, ES1252, ES1114
Digital Input Module	EL1124, EL1262, EL1262-0050, ES1124, ES1262
Digital Input Module	EL1502, EL1512, ES1502, ES1512
Digital Input Module	EL1904
Digital Output Module	EL2002, EL2004, EL2008, ES2002, ES2004, ES2008
Digital Output Module	EL2022, EL2024, EL2024-0010, EL2032, EL2034, ES2022, ES2024, ES2032, ES2034
Digital Output Module	EL2084, EL2088, ES2084, ES2088
Digital Output Module	EL2124, ES2124
Digital Output Module (Pulse Train)	EL2521, EL2521-0024, EL2521-0025, EL2521-0124, ES2521
Relay Output Module	EL2602, EL2612, EL2622, ES2602, ES2612, ES2622
Digital Output Module	EL2904, EL2902
Compact controller with digital inputs and digital outputs	EK1960

Bruce Mahrenholz, Director North American Certification Program

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Fig. 91: EK1960 – UL Certificate, page 2

CERTIFICATE OF COMPLIANCE

Certificate Number	20180309-E172151
Report Reference	E172151-20180301
Issue Date	2018-MARCH-09
Issued to:	Beckhoff Automation GmbH & Co. KG Huelshorstweg 20 33415 VERL GERMANY
This is to certify that representative samples of	COMPONENT - PROGRAMMABLE CONTROLLERS See Addendum Page
	Have been investigated by UL in accordance with the Standard(s) indicated on this Certificate.
Standard(s) for Safety:	UL 508, Industrial Control Equipment CSA C22 No. 142, Process Control Equipment
Additional Information:	See the UL Online Certifications Directory at www.ul.com/database for additional information

Only those products bearing the UL Certification Mark should be considered as being covered by UL's Certification and Follow-Up Service.

The UL Recognized Component Mark generally consists of the manufacturer's identification and catalog number, model number or other product designation as specified under "Marking" for the particular Recognition as published in the appropriate UL Directory. As a supplementary means of identifying products that have been produced under UL's Component Recognition Program, UL's Recognized Component Mark: , may be used in conjunction with the required Recognized Marks. The Recognized Component Mark is required when specified in the UL Directory preceding the recognitions or under "Markings" for the individual recognitions.

Recognized components are incomplete in certain constructional features or restricted in performance capabilities and are intended for use as components of complete equipment submitted for investigation rather than for direct separate installation in the field. The final acceptance of the component is dependent upon its installation and use in complete equipment submitted to UL LLC.

Look for the UL Certification Mark on the product.

Bruce Mahrenholz, Director North American Certification Program

UL LLC

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Fig. 92: EK1960 – UR Certificate, page 1

CERTIFICATE OF COMPLIANCE

Certificate Number 20180309-E172151
Report Reference E172151-20180301
Issue Date 2018-MARCH-09

This is to certify that representative samples of the product as specified on this certificate were tested according to the current UL requirements.

Open type, Programmable controller, BECKHOFF GmbH

EtherCAT Bus Terminal System, consisting of the following modules/Cat. Nos.:

	Cat. Nos.
Compact controller with digital inputs and digital outputs	EK1960

Bruce Mahrenholz, Director North American Certification Program

UL LLC

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Page 2 of 2

Fig. 93: EK1960 – UR Certificate, page 2

3.18 EJ6910

The following pages provide an overview of the current certificates for the EJ6910 TwinSAFE component.

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

Product Service

CERTIFICATE

No. Z10 062386 0034 Rev. 01

Holder of Certificate: **Beckhoff Automation GmbH & Co. KG**
Hülshorstweg 20
33415 Verl
GERMANY

Certification Mark:

Product: **Safety components**
Model(s): **EJ6910, EL6910**

Parameters:

Product Description:	TwinSAFE Logic
Transfer protocol:	Safety over EtherCAT (FSoE)
Protection Class:	IP20

Tested according to:
EN 61508-1:2010 (SIL 1-3)
EN 61508-2:2010 (SIL 1-3)
EN 61508-3:2010 (SIL 1-3)
EN ISO 13849-1:2015 (up to Cat 4, PL e)
EN 62061:2021 (max. SIL 3)

The product was tested on a voluntary basis and complies with the essential requirements. The certification mark shown above can be affixed on the product. It is not permitted to alter the certification mark in any way. In addition the certification holder must not transfer the certificate to third parties. This certificate is valid until the listed date, unless it is cancelled earlier. All applicable requirements of the testing and certification regulations of TÜV SÜD Group have to be complied. For details see: www.tuvsud.com/ps-cert

Test report no.: **BV99767C**
Valid until: 2027-12-08

Date, 2022-12-12

(Peter Weiß)

Page 1 of 1
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Fig. 94: EJ6910 - Z10 "Functional Safety" certificate

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

Product Service

EC-Type Examination Certificate

No. M6A 062386 0043 Rev. 01

Holder of Certificate: **Beckhoff Automation GmbH & Co. KG**
Hülshorstweg 20
33415 Verl
GERMANY

Product: **Safety components**
Model(s): **EJ 6910, EL 6910**

Parameters:

Product Description:	TwinSAFE Logic
Transfer protocol:	Safety over EtherCAT (FSoE)
Protection class:	IP20

This EC Type Examination Certificate is issued according to Article 12(3) b or 12(4) a of Council Directive 2006/42/EC relating to machinery. It confirms that the listed Annex-IV equipment complies with the principal protection requirements of the directive. It refers only to the sample submitted to TÜV SÜD Product Service GmbH for testing and certification. For details see: www.tuvsud.com/ps-cert

Test report no.: **BV99767C**

Valid until: 2027-12-08

Date, 2022-12-12

(Peter Weiß)

Page 1 of 1
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Fig. 95: EJ6910 – M6A EC type examination certificate

BECKHOFF New Automation Technology

Originalerklärung
Original declaration

EG-Konformitätserklärung

EC Declaration of Conformity

Nummer: 2017043EJ6910-2, Datum: 19.12.2022
Number, Date

Hersteller *Manufacturer*	**Beckhoff Automation GmbH & Co. KG** Hülshorstweg 20, 33415 Verl, Germany
erklärt, dass das Produkt *declares that the product*	**TwinSAFE EJ6910** TwinSAFE Logic *TwinSAFE logic*

den Bestimmungen der folgenden EG-Richtlinien entspricht:
complies with the relevant requirements of the following EC directives:

2006/42/EG *2006/42/EC*	**Richtlinie 2006/42/EG des Europäischen Parlaments und des Rates vom 17. Mai 2006 über Maschinen und zur Änderung der Richtlinie 95/16/EG (Neufassung)** *Directive 2006/42/EC of the European Parliament and of the Council of 17 May 2006 on machinery, and amending Directive 95/16/EC (recast)*
2014/30/EU *2014/30/EU*	**Richtlinie 2014/30/EU des Europäischen Parlaments und des Rates vom 26. Februar 2014 zur Harmonisierung der Rechtsvorschriften der Mitgliedstaaten über die elektromagnetische Verträglichkeit (Neufassung)** *Directive 2014/30/EU of the European Parliament and of the Council of 26 February 2014 on the harmonisation of the laws of the Member States relating to electromagnetic compatibility (recast)*
2011/65/EU *2011/65/EU*	**Richtlinie 2011/65/EU des Europäischen Parlaments und des Rates vom 8. Juni 2011 zur Beschränkung der Verwendung bestimmter gefährlicher Stoffe in Elektro- und Elektronikgeräten** *Directive 2011/65/EU of the European Parliament and of the Council of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment (recast)*

Die Konformität mit den Bestimmungen der genannten Richtlinien wird durch Einhaltung der folgenden Normen nachgewiesen:
The conformity with the listed directives is proved by compliance with the following standards:

EN ISO 13849-1:2015	**EN IEC 63000**:2018	**EN 61131-2**:2007
EN 62061:2005/A2:2015		**EN 61000-6-2**:2005
		EN 61000-6-4:2007

Die Übereinstimmung eines Baumusters des bezeichneten Produkts mit den EU-Richtlinien wurde bescheinigt von
The accordance of a production sample of the designated product with the EC directives is certified by

Richtlinie *Directive*	**Benannte Stelle** *Notified Body*	**Baumusterprüfbescheinigung** *type examination certificate*
2006/42/EG *2006/42/EC*	**TÜV SÜD Product Service GmbH** Ridlerstraße 65, 80339 München, Germany	**M6A 062386 0043 Rev. 01** 2022-12-12

Verantwortlich für die Zusammenstellung der technischen Unterlagen
Responsible for the compilation of technical documentation

Bevollmächtigter
Authorised person

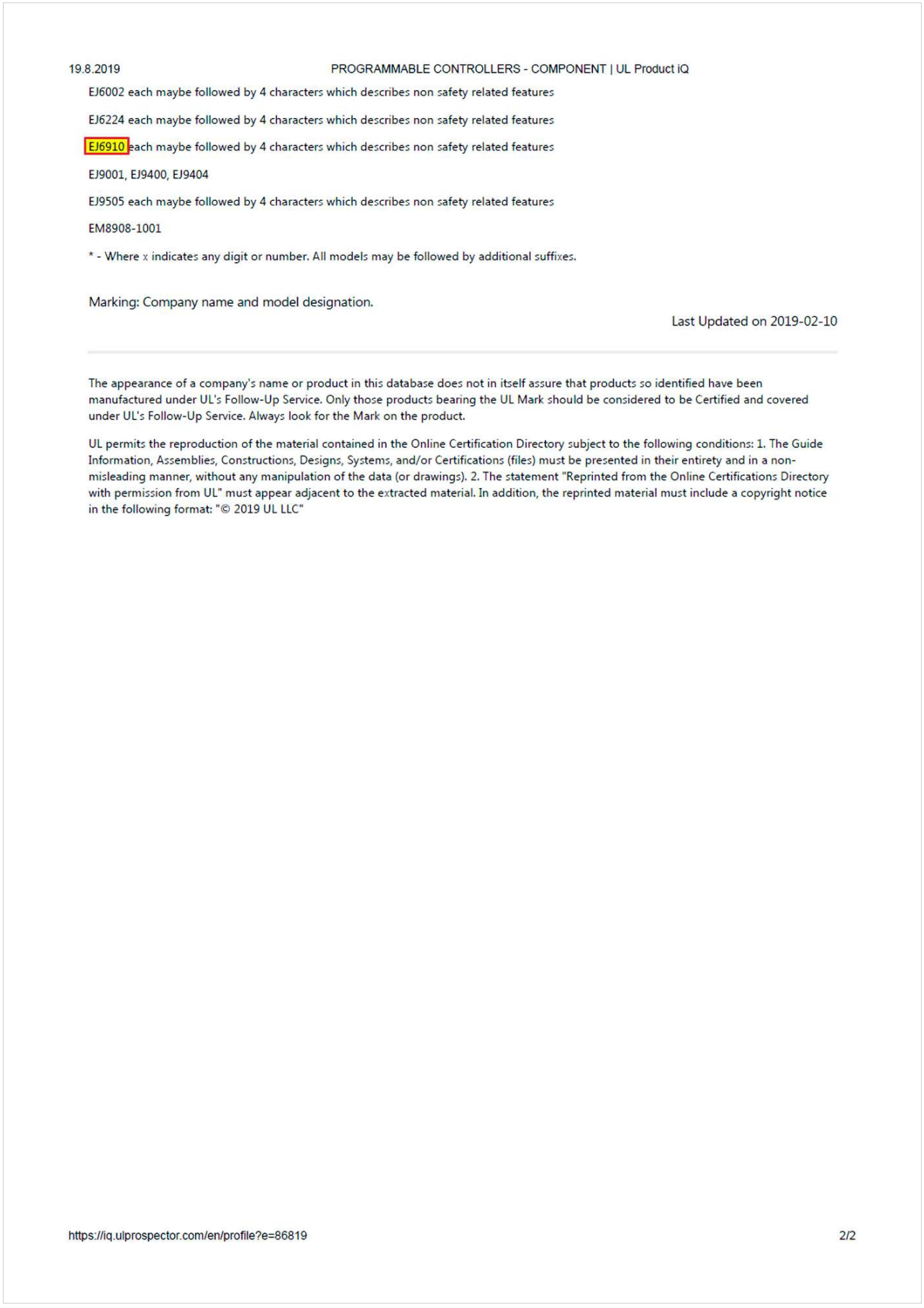
Beckhoff Automation GmbH & Co. KG
Hülshorstweg 20, 33415 Verl, Germany

Verl, 19.12.2022

Ort / Datum
Place / Date

Dipl.-Phys. Hans Beckhoff, Geschäftsführer
Dipl.-Phys. Hans Beckhoff, CEO

Fig. 96: EJ6910 – EC declaration of conformity



19.8.2019 PROGRAMMABLE CONTROLLERS - COMPONENT | UL Product iQ

EJ6002 each maybe followed by 4 characters which describes non safety related features

EJ6224 each maybe followed by 4 characters which describes non safety related features

EJ6910 each maybe followed by 4 characters which describes non safety related features

EJ9001, EJ9400, EJ9404

EJ9505 each maybe followed by 4 characters which describes non safety related features

EM8908-1001

* - Where x indicates any digit or number. All models may be followed by additional suffixes.

Marking: Company name and model designation.

Last Updated on 2019-02-10

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https://iq.ulprospector.com/en/profile?e=86819 2/2

Fig. 97: EJ1960 - US, page 2

EJ5101 each maybe followed by 4 characters which describes non safety related features

EJ6002 each maybe followed by 4 characters which describes non safety related features

EJ6224 each maybe followed by 4 characters which describes non safety related features

EJ6910 each maybe followed by 4 characters which describes non safety related features

EJ9001, EJ9400, EJ9404

EJ9505 each maybe followed by 4 characters which describes non safety related features

EM8908-1001

* - Where x indicates any digit or number. All models may be followed by additional suffixes.

Marking: Company name, model designation and the Recognized Component Mark for Canada, .

Last Updated on 2019-02-10

Fig. 98: EJ1960 - C, page 1

3.19 EJ1914, EJ1918, EJ1957, EJ2914, EJ2918

The following pages provide an overview of the current certificates for the TwinSAFE components EJ1914, EJ1918, EJ1957, EJ2914 and EJ2918 as well as variants without housing, such as FB6901-1918.

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

Product Service

CERTIFICATE

No. Z10 062386 0037 Rev. 02

Holder of Certificate: **Beckhoff Automation GmbH & Co. KG**
Hülshorstweg 20
33415 Verl
GERMANY

Certification Mark:

Product: **Safety components**
EtherCAT Plugin Module

The product was tested on a voluntary basis and complies with the essential requirements. The certification mark shown above can be affixed on the product. It is not permitted to alter the certification mark in any way. In addition the certification holder must not transfer the certificate to third parties. This certificate is valid until the listed date, unless it is cancelled earlier. All applicable requirements of the Testing, Certification, Validation and Verification Regulations of TÜV SÜD Group have to be complied. For details see: www.tuvsud.com/ps-cert

Test report no.: BV99823C

Valid until: 2029-10-27

Date, 2024-10-29

(Thomas Kreten)

Page 1 of 2
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Fig. 99: EJx9xx and variants without housing - Z10 "Functional Safety" certificate, page 1

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

TÜV SÜD Product Service

CERTIFICATE

No. Z10 062386 0037 Rev. 02

Parameters:	Safety integrity level:	up to SIL 3
	Category:	Cal 4
	Performance level:	PI e
Tested according to:	EN ISO 13849-1:2023 (up to Cat. 4 PL e) EN 61508-1:2010 (up to SIL 3) EN 61508-2:2010 (up to SIL 3) EN 61508-3:2010 (up to SIL 3) EN IEC 62061:2021 (up to max SIL3)	
Model(s):	**EJx9xx and Variants w/o housing**	

EJ x 9 x x
(A) (B) (C) (D) (E)

(A) Series
EJ: EtherCAT plug-in module / TwinSAFE I/O

(B) I/O
1: digital input
2: digital output

(C) Product family
9: TwinSAFE product

(D) Generation
1: second device generation
5: combi module

(E) Channel
4: 4-channel
7: 8-input / 4-output
8: 8-channel

FB6901-1918
variant of EJ1918 without housing
EJ1957-0001
variant of EJ1957 without housing

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Fig. 100: EJx9xx and variants without housing - Z10 "Functional Safety" certificate, page 2

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

Product Service

EC-Type Examination Certificate

No. M6A 062386 0042 Rev. 02

Holder of Certificate: **Beckhoff Automation GmbH & Co. KG**
Hülshorstweg 20
33415 Verl
GERMANY

Product: **Safety components**
EtherCAT Plugin Module

This EC Type Examination Certificate is issued according to Article 12(3) b or 12(4) a of Council Directive 2006/42/EC relating to machinery. It confirms that the listed Annex-IV equipment complies with the principal protection requirements of the directive. It refers only to the sample submitted to TÜV SÜD Product Service GmbH for testing and certification. For details see: www.tuvsud.com/ps-cert

Test report no.: BV99823C

Valid until: 2029-10-27

Date, 2024-10-29

(Thomas Kreten)

Page 1 of 2
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Fig. 101: EJx9xx - M6A EC type examination certificate, page 1

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

Product Service

EC-Type Examination Certificate

No. M6A 062386 0042 Rev. 02

Model(s): **EJx9xx and Variants w/o housing**

EJ x 9 x x
(A) (B) (C) (D) (E)

(A) Series
EJ: EtherCAT plug-in module / TwinSAFE I/O

(B) I/O
1: digital input
2: digital output

(C) Product family
9: TwinSAFE product

(D) Generation
1: second device generation
5: combi module

(E) Channel
4: 4-channel
7: 8-input / 4-output
8: 8-channel

FB6901-1918
variant of EJ1918 without housing
EJ1957-0001
variant of EJ1957 without housing

Parameters:

Safety integrity level:	up to SIL 3
Category:	Cal 4
Performance level:	Pl e

Page 2 of 2
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Fig. 102: EJx9xx - M6A EC type examination certificate, page 2

BECKHOFF New Automation Technology

Originalerklärung
Original declaration

EG-Konformitätserklärung

EC Declaration of Conformity

Nummer: 2017042EJx9xx-2, Datum: 06.01.2023
Number, Date

Hersteller *Manufacturer*	**Beckhoff Automation GmbH & Co. KG** Hülshorstweg 20, 33415 Verl, Germany
erklärt, dass das Produkt *declares that the product*	**TwinSAFE EJx9xx** TwinSAFE-EJ-Module mit digitalen fehlersicheren Ein- und Ausgängen *TwinSAFE EJ Modules with digital fail-safe inputs and outputs*

den Bestimmungen der folgenden EG-Richtlinien entspricht:
complies with the relevant requirements of the following EC directives:

2006/42/EG *2006/42/EC*	**Richtlinie 2006/42/EG des Europäischen Parlaments und des Rates vom 17. Mai 2006 über Maschinen und zur Änderung der Richtlinie 95/16/EG (Neufassung)** *Directive 2006/42/EC of the European Parliament and of the Council of 17 May 2006 on machinery, and amending Directive 95/16/EC (recast)*
2014/30/EU *2014/30/EU*	**Richtlinie 2014/30/EU des Europäischen Parlaments und des Rates vom 26. Februar 2014 zur Harmonisierung der Rechtsvorschriften der Mitgliedstaaten über die elektromagnetische Verträglichkeit (Neufassung)** *Directive 2014/30/EU of the European Parliament and of the Council of 26 February 2014 on the harmonisation of the laws of the Member States relating to electromagnetic compatibility (recast)*
2011/65/EU *2011/65/EU*	**Richtlinie 2011/65/EU des Europäischen Parlaments und des Rates vom 8. Juni 2011 zur Beschränkung der Verwendung bestimmter gefährlicher Stoffe in Elektro- und Elektronikgeräten** *Directive 2011/65/EU of the European Parliament and of the Council of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment (recast)*

Die Konformität mit den Bestimmungen der genannten Richtlinien wird durch Einhaltung der folgenden Normen nachgewiesen:
The conformity with the listed directives is proved by compliance with the following standards:

EN ISO 13849-1:2015	**EN IEC 63000**:2018	**EN 61131-2**:2007
EN 62061:2005/A2:2015		**EN 61000-6-2**:2005
		EN 61000-6-4:2007

Die Übereinstimmung eines Baumusters des bezeichneten Produkts mit den EU-Richtlinien wurde bescheinigt von
The accordance of a production sample of the designated product with the EC directives is certified by

Richtlinie *Directive*	**Benannte Stelle** *Notified Body*	**Baumusterprüfbescheinigung** *type examination certificate*
2006/42/EG *2006/42/EC*	**TÜV SÜD Product Service GmbH** Ridlerstraße 65, 80339 München, Germany	**M6A 062386 0042 Rev. 01** 2022-12-12

Verantwortlich für die Zusammenstellung der technischen Unterlagen
Responsible for the compilation of technical documentation

Bevollmächtigter *Authorised person*	**Beckhoff Automation GmbH & Co. KG** Hülshorstweg 20, 33415 Verl, Germany
Verl, 31.1.2023 **Ort / Datum** *Place / Date*	**Dipl.-Phys. Hans Beckhoff, Geschäftsführer** *Dipl.-Phys. Hans Beckhoff, CEO*

Fig. 103: EJx9xx – EC declaration of conformity

UL Product iQ™

NRAQ2.E172151 - PROGRAMMABLE CONTROLLERS - COMPONENT

Programmable Controllers - Component

See General Information for Programmable Controllers - Component

BECKHOFF AUTOMATION GMBH & CO. KG E172151
HUELSHORSTWEG 20
33415 VERL, GERMANY

Investigated to ANSI/UL 508

EtherCAT boxes, open type Model(s) CU26xx, where x indicates any digit or number.

EP1xxx*, EP2xxx*, EP3xxx*, EP4xxx*, EP5xxx*, EP6xxx*, EP8xxx*, EP9xxx*, EQ1xxx*, EQ2xxx*, EQ3xxx*, EQ4xxx*, EQ5xxx*, EQ6xxx*, EQ8xxx*, EQ9xxx*, ER1xxx*, ER2xxx*, ER3xxx*, ER4xxx*, ER5xxx*, ER6xxx*, ER8xxx*, ER9xxx*

Programmable Controllers Model(s) EK1960

EPIyxxx, ERIyxxx Where y indicates digit 1, 2, 3, 4, 5, 6, 7, 8 or 9. Where x indicates any digit or number. All models may be followed by additional suffixes.

Investigated to UL 61010-1, 3rd Edition and UL 61010-2-201, 1st Edition

EJ1008 each maybe followed by 4 characters which describes non safety related features

EJ1100, EJ1101-0022

EJ1809 each maybe followed by 4 characters which describes non safety related features

EJ1819 each maybe followed by 4 characters which describes non safety related features

EJ1859

EJ1889 each maybe followed by 4 characters which describes non safety related features

EJ1914 each maybe followed by 4 characters which describes non safety related features

EJ1918 each maybe followed by 4 characters which describes non safety related features

EJ1957, EJ2008, EJ2502

EJ2521-0224 each maybe followed by 4 characters which describes non safety related features

EJ2809, EJ2889, EJ2914, EJ2918

EJ3004 each maybe followed by 4 characters which describes non safety related features

EJ3048 each maybe followed by 4 characters which describes non safety related features

EJ3058 each maybe followed by 4 characters which describes non safety related features

EJ3104 each maybe followed by 4 characters which describes non safety related features

EJ3108 each maybe followed by 4 characters which describes non safety related features

EJ3202 each maybe followed by 4 characters which describes non safety related features

EJ3214 each maybe followed by 4 characters which describes non safety related features

EJ3318 each maybe followed by 4 characters which describes non safety related features

EJ4002, EJ4018, EJ4132, EJ4134

EJ5002 each maybe followed by 4 characters which describes non safety related features

EJ5101 each maybe followed by 4 characters which describes non safety related features

Fig. 104: EJx9xx - US, page 1

UL Product iQ™

NRAQ8.E172151 - PROGRAMMABLE CONTROLLERS CERTIFIED FOR CANADA - COMPONENT

Programmable Controllers Certified for Canada - Component

See General Information for Programmable Controllers Certified for Canada - Component

BECKHOFF AUTOMATION GMBH & CO. KG E172151
HUELSHORSTWEG 20
33415 VERL, GERMANY

Investigated to CAN/CSA C22.2 No. 142

EtherCAT boxes, open type Model(s) CU26xx, where x indicates any digit or number.

EP1xxx*, EP2xxx*, EP3xxx*, EP4xxx*, EP5xxx*, EP6xxx*, EP8xxx*, EP9xxx*, EQ1xxx*, EQ2xxx*, EQ3xxx*, EQ4xxx*, EQ5xxx*, EQ6xxx*, EQ8xxx*, EQ9xxx*, ER1xxx*, ER2xxx*, ER3xxx*, ER4xxx*, ER5xxx*, ER6xxx*, ER8xxx*, ER9xxx*

Programmable Controllers Model(s) EK1960

EPIyxxx, ERIyxxx Where y indicates digit 1, 2, 3, 4, 5, 6, 7, 8 or 9. Where x indicates any digit or number. All models may be followed by additional suffixes.

Investigated to CAN/CSA C22.2 No. 61010-1, 3rd Edition and CAN/CSA C22.2 No. 61010-2-201:14

EJ1008 each maybe followed by 4 characters which describes non safety related features

EJ1100, EJ1101-0022

EJ1809 each maybe followed by 4 characters which describes non safety related features

EJ1819 each maybe followed by 4 characters which describes non safety related features

EJ1859

EJ1889 each maybe followed by 4 characters which describes non safety related features

EJ1914 each maybe followed by 4 characters which describes non safety related features

EJ1918 each maybe followed by 4 characters which describes non safety related features

EJ1957, EJ2008, EJ2502

EJ2521-0224 each maybe followed by 4 characters which describes non safety related features

EJ2809, EJ2889, EJ2914, EJ2918

EJ3004 each maybe followed by 4 characters which describes non safety related features

EJ3048 each maybe followed by 4 characters which describes non safety related features

EJ3058 each maybe followed by 4 characters which describes non safety related features

EJ3104 each maybe followed by 4 characters which describes non safety related features

EJ3108 each maybe followed by 4 characters which describes non safety related features

EJ3202 each maybe followed by 4 characters which describes non safety related features

EJ3214 each maybe followed by 4 characters which describes non safety related features

EJ3318 each maybe followed by 4 characters which describes non safety related features

EJ4002, EJ4018, EJ4132, EJ4134

EJ5002 each maybe followed by 4 characters which describes non safety related features

Fig. 105: EJx9xx - C, page 1

3.20 AMI8911

The following pages provide an overview of the current certificates for the AMI8xxx servo drive with integrated AMI8911 TwinSAFE card.

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

Product Service

CERTIFICATE

No. Z10 062386 0086 Rev. 00

Holder of Certificate: **Beckhoff Automation GmbH & Co. KG**
Hülshorstweg 20
33415 Verl
GERMANY

Certification Mark:

Product: **Safety components**

The product was tested on a voluntary basis and complies with the essential requirements. The certification mark shown above can be affixed on the product. It is not permitted to alter the certification mark in any way. In addition the certification holder must not transfer the certificate to third parties. This certificate is valid until the listed date, unless it is cancelled earlier. All applicable requirements of the testing and certification regulations of TÜV SÜD Group have to be complied. For details see: www.tuvsud.com/ps-cert

Test report no.: BV97184T

Valid until: 2026-08-16

Date, 2021-08-27

(Peter Weiß)

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Fig. 106: AMI8911 - Z10 "Functional Safety" certificate, page 1

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

Product Service

CERTIFICATE

No. Z10 062386 0086 Rev. 00

Parameters:

Supply voltage: logic 24VDC / motor 48VDC
Ambient temperature: +5°C ... +40°C

Tested according to:

EN 61508-1:2010 (up to SIL 3)
EN 61508-2:2010 (up to SIL 3)
EN 61508-3:2010 (up to SIL 3)
IEC 62061:2021 (maximum SIL 3)
EN ISO 13849-1:2015 (up to Cat.4 PL e)
EN 61800-5-2:2017

Model(s): **AMI8xxx with integrated AMI8911**

Nomenclature of Product type AMI81uv-abcc–wxyz

AMI81uv-abcc-wxyz			
AMI8	Product line	AMI8	Integrated servo drives
1	Number of channels	1	1-channel servo axis
u	Flange code	2	flange code F2
v	Motor length	1	motor length 1
		2	motor length 2
		3	motor length 3
a	Feedback	3	single-turn absolute encoder, 17 bit resolution
		4	multi-turn absolute encoder, 17 bit resolution
b	TwinSAFE	0	without TwinSAFE
		1	TwinSAFE STO via FSoE
cc	Customer specific mechanical variant	00-99	customer specific variant
w	Shaft	0	smooth shaft
		1	shaft with groove and feather key according to DIN 6885
		2	shaft with IP 65 sealing ring and smooth shaft
		3	shaft with IP 65 sealing ring and shaft with groove and feather key according to DIN 6885
x	Winding code	F, J	winding code F, J
y	Communication interface	1	EtherCAT
z	Holding brake	0	without holding brake
		1	with holding brake

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Fig. 107: AMI8911 - Z10 "Functional Safety" certificate, page 2

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

Product Service

EC-Type Examination Certificate

No. M6A 062386 0087 Rev. 00

Holder of Certificate: **Beckhoff Automation GmbH & Co. KG**
Hülshorstweg 20
33415 Verl
GERMANY

Product: **Safety components**

This EC Type Examination Certificate is issued according to Article 12(3) b or 12(4) a of Council Directive 2006/42/EC relating to machinery. It confirms that the listed Annex-IV equipment complies with the principal protection requirements of the directive. It refers only to the sample submitted to TÜV SÜD Product Service GmbH for testing and certification. For details see: www.tuvsud.com/ps-cert

Test report no.: BV97184T

Valid until: 2026-08-25

Date, 2021-08-27

(Peter Weiß)

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Fig. 108: AMI8911 - M6A EC type examination certificate, page 1

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

Product Service

EC-Type Examination Certificate

No. M6A 062386 0087 Rev. 00

Model(s): **AMI8xxx with integrated AMI8911**

Nomenclature of Product type AMI81uv-abcc–wxyz

AMI81uv-abcc-wxyz			
AMI8	Product line	AMI8	Integrated servo drives
1	Number of channels	1	1-channel servo axis
u	Flange code	2	flange code F2
v	Motor length	1	motor length 1
		2	motor length 2
		3	motor length 3
a	Feedback	3	single-turn absolute encoder, 17 bit resolution
		4	multi-turn absolute encoder, 17 bit resolution
b	TwinSAFE	0	without TwinSAFE
		1	TwinSAFE STO via FSoE
cc	Customer specific mechanical variant	00-99	customer specific variant
w	Shaft	0	smooth shaft
		1	shaft with groove and feather key according to DIN 6885
		2	shaft with IP 65 sealing ring and smooth shaft
		3	shaft with IP 65 sealing ring and shaft with groove and feather key according to DIN 6885
x	Winding code	F, J	winding code F, J
y	Communication interface	1	EtherCAT
z	Holding brake	0	without holding brake
		1	with holding brake

Parameters:

Supply voltage: logic 24VDC / motor 48VDC
Ambient temperature: +5°C ... +40°C

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Fig. 109: AMI8911 - M6A EC type examination certificate, page 2

3.21 AMP8911

On the following pages you will find an overview of the current certificates for the AMP8000 servo drive with integrated AMP8911 TwinSAFE card.

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

Product Service

CERTIFICATE

No. Z10 062386 0088 Rev. 00

Holder of Certificate: **Beckhoff Automation GmbH & Co. KG**
Hülshorstweg 20
33415 Verl
GERMANY

Certification Mark:

Product: **Safety components**

The product was tested on a voluntary basis and complies with the essential requirements. The certification mark shown above can be affixed on the product. It is not permitted to alter the certification mark in any way. In addition the certification holder must not transfer the certificate to third parties. This certificate is valid until the listed date, unless it is cancelled earlier. All applicable requirements of the testing and certification regulations of TÜV SÜD Group have to be complied. For details see: www.tuvsud.com/ps-cert

Test report no.: **BV97628T**

Valid until: 2026-11-03

Date, 2021-11-09

(Günter Greil)

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Fig. 110: AMP8911 - Z10 "Functional Safety" certificate, page 1

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

Product Service

CERTIFICATE

No. Z10 062386 0088 Rev. 00

Parameters:

Supply voltage: logic 24 Vdc / motor 0...848 Vdc
Ambient temperature: 0°C ... +40°C

Tested according to:

IEC 61508-1:2010 (up to SIL3)
IEC 61508-2:2010 (up to SIL3)
IEC 61508-3:2010 (up to SIL3)
IEC 62061:2021 (maximum SIL 3)
EN ISO 13849-1:2015 (up to Cat.4 PL e)
EN 61800-5-2:2017

Model(s): **AMP8000 Distributed servo drives**

Nomenclature of Product type AMP8abc-defg-hijk

AMP 8 a b c – d e f g – h i j k			
AMP8	Product line	AMP8	distributed servo drives
a	Variant	0	standard
		5	increased mass moment
b	Flange code	3	3 = 72mm
		4	4 = 87mm
		5	5 = 104mm
c	Length	1	overall length 1
		2	overall length 2
		3	overall length 3
		4	overall length 4
d	Winding code	A...Z	winding code A...Z
		S	special winding
e	Shaft	0	smooth shaft
		1	keyway
		2	shaft with radial shaft-sealing ring IP 65 and smooth shaft
		3	shaft with radial shaft-sealing ring IP 65, groove, feather key
		4	shaft with radial shaft-sealing ring IP 65, smooth shaft and sealing air connection
		5	shaft with radial shaft-sealing ring IP 65, groove, feather key and sealing air connection

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Fig. 111: AMP8911 - Z10 "Functional Safety" certificate, page 2

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

Product Service

CERTIFICATE

No. Z10 062386 0088 Rev. 00

AMP 8 a b c – d e f g – h i j k			
f	Feedback system + Safety version	1	single-turn absolute encoder, 24 bit resolution, STO, SS1
		2	multi-turn absolute encoder, 24 bit resolution, STO, SS1
		3	single-turn absolute encoder, 24 bit resolution, Safe Motion
		4	multi-turn absolute encoder, 24 bit resolution, Safe Motion
g	Brake	0	without holding brake
		1	with holding brake
h, i, j, k	Variant	x	Variants without any influence on the safety technology

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Fig. 112: AMP8911 - Z10 "Functional Safety" certificate, page 3

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

Product Service

EC-Type Examination Certificate

No. M6A 062386 0089 Rev. 00

Holder of Certificate: **Beckhoff Automation GmbH & Co. KG**
Hülshorstweg 20
33415 Verl
GERMANY

Product: **Safety components**

This EC Type Examination Certificate is issued according to Article 12(3) b or 12(4) a of Council Directive 2006/42/EC relating to machinery. It confirms that the listed Annex-IV equipment complies with the principal protection requirements of the directive. It refers only to the sample submitted to TÜV SÜD Product Service GmbH for testing and certification. For details see: www.tuvsud.com/ps-cert

Test report no.: BV97628T

Valid until: 2026-12-02

Date, 2021-12-03

(Guido Neumann)

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Fig. 113: AMP8911 - M6A EC type examination certificate, page 1

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

Product Service

EC-Type Examination Certificate

No. M6A 062386 0089 Rev. 00

Model(s): **AMP8000 Distributed servo drives**

Nomenclature of Product type AMP8abc-defg-hijk

AMP 8 a b c – d e f g – h i j k			
AMP8	Product line	AMP8	distributed servo drives
a	Variant	0	standard
		5	increased mass moment
b	Flange code	3	3 = 72mm
		4	4 = 87mm
		5	5 = 104mm
c	Length	1	overall length 1
		2	overall length 2
		3	overall length 3
		4	overall length 4
d	Winding code	A...Z	winding code A...Z
		S	special winding
e	Shaft	0	smooth shaft
		1	keyway
		2	shaft with radial shaft-sealing ring IP 65 and smooth shaft
		3	shaft with radial shaft-sealing ring IP 65, groove, feather key
		4	shaft with radial shaft-sealing ring IP 65, smooth shaft and sealing air connection
		5	shaft with radial shaft-sealing ring IP 65, groove, feather key and sealing air connection

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Fig. 114: AMP8911 - M6A EC type examination certificate, page 2

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

Product Service

EC-Type Examination Certificate

No. M6A 062386 0089 Rev. 00

AMP 8 a b c – d e f g – h i j k			
f	Feedback system + Safety version	1	single-turn absolute encoder, 24 bit resolution, STO, SS1
		2	multi-turn absolute encoder, 24 bit resolution, STO, SS1
		3	single-turn absolute encoder, 24 bit resolution, Safe Motion
		4	multi-turn absolute encoder, 24 bit resolution, Safe Motion
g	Brake	0	without holding brake
		1	with holding brake
h, i, j, k	Variant	x	Variants without any influence on the safety technology

Parameters:

Supply voltage: logic 24 Vdc / motor 0...848 Vdc
Ambient temperature: 0°C ... +40°C

TÜV SÜD Product Service GmbH is Notified Body according to Council Directive 2006/42/EC relating to machinery, notified by publication in the Offical Journal of the EC with identification No.0123.

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Fig. 115: AMP8911 - M6A EC type examination certificate, page 3

3.22 AX5801

The following pages provide an overview of the current certificates for the AX5801 TwinSAFE card.

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

TÜV SÜD Product Service

CERTIFICATE

No. Z10 062386 0074 Rev. 00

Holder of Certificate: **Beckhoff Automation GmbH & Co. KG**
Hülshorstweg 20
33415 Verl
GERMANY

Factory(ies): 062386

Certification Mark:

Product: **Safety components**
Model(s): **Safety Card AX5801**
for use in AX5000-Series

Parameters:

Supply voltage:	24VDC (-15%/+20%)
Operating temperature:	0°C...+55°C

Tested according to:
2006/42/EC
EN ISO 13849-1:2015 (Cat 4, PL e)
IEC 61508-1:2010 (SIL 3)
IEC 61508-2:2010 (SIL 3)
IEC 61508-3:2010 (SIL 3)
IEC 62061:2005 (SIL CL3)
IEC 62061:2005/AMD1:2012
IEC 62061:2005/AMD2:2015
IEC 61800-5-2:2016 (SIL 3)

The product was tested on a voluntary basis and complies with the essential requirements. The certification mark shown above can be affixed on the product. It is not permitted to alter the certification mark in any way. In addition the certification holder must not transfer the certificate to third parties. See also notes overleaf.

Test report no.: BV86472T
Valid until: 2025-03-23

Date, 2020-03-24 (Christian Dirmeier)

A4 / 07.17

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Fig. 116: AX5801 – Z10 Functional Safety Certificate

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

Product Service

EC-Type Examination Certificate

No. M6A 062386 0097 Rev. 00

Holder of Certificate: **Beckhoff Automation GmbH & Co. KG**
Hülshorstweg 20
33415 Verl
GERMANY

Product: **Safety components**

Model(s): **Safety Card AX5801**
for use in AX5000-Series

Parameters:

Supply voltage:	24VDC (-15%/+20%)
Operating temperature:	0°C...+55°C

This EC Type Examination Certificate is issued according to Article 12(3) b or 12(4) a of Council Directive 2006/42/EC relating to machinery. It confirms that the listed Annex-IV equipment complies with the principal protection requirements of the directive. It refers only to the sample submitted to TÜV SÜD Product Service GmbH for testing and certification. For details see: www.tuvsud.com/ps-cert

Test report no.: BV86472T

Valid until: 2025-03-23

Date, 2023-09-06

(Christian Dirmeier)

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Fig. 117: AX5801 – M6A EC-Type Examination Certificate

BECKHOFF New Automation Technology

EU-Konformitätserklärung, EU Declaration of Conformity

Hersteller *Manufacturer*	**Beckhoff Automation** GmbH & Co.KG
Anschrift *Address*	Hülshorstweg 20 33415 Verl Bundesrepublik Deutschland
Produktbezeichnung *Product description*	**Servoverstärker (siehe Anhang)** *Servo drives (see Appendix)*

Die hier genannten Baugruppen sind entwickelt, konstruiert und gefertigt in Übereinstimmung mit der Niederspannungsrichtlinie 2014/35/EU sowie der EMV-Richtlinie 2014/30/EU. Sie entsprechen den Anforderungen der RoHS-Richtlinie 2011/65/EU. Folgende Normen wurden angewandt:
The components mentioned herein have been developed, designed and manufactured in accordance with the Low Voltage Directive 2014/35/EU as well as EMC Directive 2014/30/EU. They meet the requirements of RoHS Directive 2011/65/EU. The following standards have been used:

Fachgrundnorm: EN 61000-6-2:2005 *Generic Standard: EN 61000-6-2:2005*	**Störfestigkeit für Industriebereich** *immunity for industrial environments*
Fachgrundnorm: EN 61000-6-4:2007+A1:2011 *Generic Standard: EN 61000-6-4:2007+A1:2011*	**Störaussendung für Industriebereich** *emission standard for industrial environments*
Produktnorm: EN 61800-3:2004+A1:2012 *Product Standard: EN 61800-3:2004+A1:2012*	**Drehzahlveränderbare elektrische Antriebe - EMV-Anforderungen einschließlich spezieller Prüfverfahren** *Adjustable speed electrical power drive systems – EMC requirements and specific test methods*
Produktnorm: EN 61800-5-1:2007 *Product Standard: EN 61800-5-1:2007*	**Elektrische Leistungsantriebssysteme mit einstellbarer Drehzahl – Anforderungen an die Sicherheit** *Adjustable speed electrical power drive systems – Safety requirements – Electrical, thermal and energy*
RoHS: EN 50581:2012 *RoHS: EN 50581:2012*	**Technische Dokumentation zur Regelung von Elektro- und Elektronikgeräten hinsichtlich der Beschränkung gefährlicher Stoffe** *Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances*

Verl, den / *the* **17.07.2017**

Unterschrift, *signature*
Name, *name* **Hans Beckhoff**
Funktion, *function* **Geschäftsführer**, *Executive Director*

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Fig. 118: AX servo drives – EC Declaration of Conformity, page 1

BECKHOFF New Automation Technology

EU-Konformitätserklärung
EU declaration of conformity

Servoverstärker, *Servo drives*

Bestellnummer *order number*	**Bezeichnung** *designation*
AX20xx-xxxx-xxxx	**Digital Kompakt Servoverstärker**, *Digital Compact Servo Drive*
AX25xx-xxxx-xxxx	**Digital Kompakt Servoverstärker**, *Digital Compact Servo Drive*
AX5xxx-xxxx-xxxx	**Digital Kompakt Servoverstärker**, *Digital Compact Servo Drive*
AX8xxx-xxxx-xxxx	**Digital Kompakt Servoverstärker**, *Digital Compact Servo Drive*

Fig. 119: AX servo drives – EC Declaration of Conformity, page 2

CERTIFICATE OF COMPLIANCE

Certificate Number	20180514-E195162
Report Reference	E195162-20090220
Issue Date	2018-MAY-14
Issued to:	Beckhoff Automation GmbH & Co. KG Huelshorstweg 20 33415 VERL GERMANY
This is to certify that representative samples of	POWER CONVERSION EQUIPMENT See addendum page
	Have been investigated by UL in accordance with the Standard(s) indicated on this Certificate.
Standard(s) for Safety:	the products evaluated comply with the applicable requirements in UL 508C and CSA C22.2 No. 274-13.
Additional Information:	See the UL Online Certifications Directory at www.ul.com/database for additional information

Only those products bearing the UL Certification Mark should be considered as being covered by UL's Certification and Follow-Up Service.

Look for the UL Certification Mark on the product.

Bruce Mahrenholz, Director North American Certification Program

UL LLC

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Fig. 120: AX5xxx – UL Certificate, page 1

CERTIFICATE OF COMPLIANCE

Certificate Number	20180514-E195162
Report Reference	E195162-20090220
Issue Date	2018-MAY-14

This is to certify that representative samples of the product as specified on this certificate were tested according to the current UL requirements.

Models:

USL/CNL (#) - Power Conversion Equipment, Open Type, Cat. No. AX5 followed by 1 or 2, followed by 01, 03 or 06, may be followed by -, may be followed by suffixes.

USL/CNL (#) - Power Conversion Equipment, Open Type, Cat. No. AX5 followed by 1 followed by 12, 18, 25, 40 may be followed by -, may be followed by suffixes.

Note (#) - CNL only in combination with external module AX2090-TS50.

Bruce Mahrenholz, Director North American Certification Program

UL LLC

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Fig. 121: AX5xxx – UL Certificate, page 2

3.23 AX5805, AX5806

The following pages provide an overview of the current certificates for the AX5805 and AX5806 TwinSAFE cards.

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

Product Service

CERTIFICATE

No. Z10 062386 0098 Rev. 00

Holder of Certificate: **Beckhoff Automation GmbH & Co. KG**
Hülshorstweg 20
33415 Verl
GERMANY

Certification Mark:

Product: **Safety components**

Model(s): **AX5805/5806 for use in AX5000-0000-0200-Series**

Parameters: Safety Functions:
STO, SS1, SS2, SOS,
SLS, SSM, SSR, SMS,
SLP, SCA, SLI, SAR,
SMA, SDI

Tested according to:
2006/42/EC
EN ISO 13849-1:2015 (Cat.4, PL e)
EN 61508-1:2010 (SIL 3)
EN 61508-2:2010 (SIL 3)
EN 61508-3:2010 (SIL 3)
EN 62061:2021 (max. SIL 3)
EN 61800-5-2:2017

The product was tested on a voluntary basis and complies with the essential requirements. The certification mark shown above can be affixed on the product. It is not permitted to alter the certification mark in any way. In addition the certification holder must not transfer the certificate to third parties. This certificate is valid until the listed date, unless it is cancelled earlier. All applicable requirements of the testing and certification regulations of TÜV SÜD Group have to be complied. For details see: www.tuvsud.com/ps-cert

Test report no.: BV101488C

Valid until: 2028-10-23

Date, 2023-10-26

(Guido Neumann)

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Fig. 122: AX5805, AX5806 – Z10 Functional Safety Certificate

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

TÜV SÜD Product Service

EC-Type Examination Certificate

No. M6A 062386 0101 Rev. 00

Holder of Certificate: **Beckhoff Automation GmbH & Co. KG**
Hülshorstweg 20
33415 Verl
GERMANY

Product: **Safety components**

Model(s): **AX5805/5806 for use in AX5000-0000-0200-Series**

Parameters: Safety Functions:
STO, SS1, SS2, SOS,
SLS, SSM, SSR, SMS,
SLP, SCA, SLI, SAR,
SMA, SDI

This EC Type Examination Certificate is issued according to Article 12(3) b or 12(4) a of Council Directive 2006/42/EC relating to machinery. It confirms that the listed Annex-IV equipment complies with the principal protection requirements of the directive. It refers only to the sample submitted to TÜV SÜD Product Service GmbH for testing and certification. For details see: www.tuvsud.com/ps-cert

Test report no.: BV101488C

Valid until: 2028-10-25

Date, 2023-10-26

(Guido Neumann)

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Fig. 123: AX5805, AX5806 – EC-Type Examination Certificate

BECKHOFF New Automation Technology

Originalerklärung
Original declaration

EG-Konformitätserklärung

EC Declaration of Conformity

Nummer: 20230101AX5805/5806-1, Datum: 08.12.2023
Number, Date

Hersteller *Manufacturer*	**Beckhoff Automation GmbH & Co. KG** Hülshorstweg 20, 33415 Verl, Germany
erklärt, dass das Produkt *declares that the product*	**TwinSAFE-Drive-Optionskarte AX5805/5806 für die Verwendung in der AX5000-000-0200-Serie** *TwinSAFE drive option card AX5805/5806 for use in AX5000-0000-0200 series*

den Bestimmungen der folgenden EG-Richtlinien entspricht:
complies with the relevant requirements of the following EC directives:

2006/42/EG *2006/42/EC*	**Richtlinie 2006/42/EG des Europäischen Parlaments und des Rates vom 17. Mai 2006 über Maschinen und zur Änderung der Richtlinie 95/16/EG (Neufassung)** *Directive 2006/42/EC of the European Parliament and of the Council of 17 May 2006 on machinery, and amending Directive 95/16/EC (recast)*
2011/65/EU *2011/65/EU*	**Richtlinie 2011/65/EU des Europäischen Parlaments und des Rates vom 8. Juni 2011 zur Beschränkung der Verwendung bestimmter gefährlicher Stoffe in Elektro- und Elektronikgeräten** *Directive 2011/65/EU of the European Parliament and of the Council of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment (recast)*
2014/30/EU *2014/30/EU*	**Richtlinie 2014/30/EU des Europäischen Parlaments und des Rates vom 26. Februar 2014 zur Harmonisierung der Rechtsvorschriften der Mitgliedstaaten über die elektromagnetische Verträglichkeit (Neufassung)** *Directive 2014/30/EU of the European Parliament and of the Council of 26 February 2014 on the harmonisation of the laws of the Member States relating to electromagnetic compatibility (recast)*

Die Konformität mit dem Stand der Technik wird durch Einhaltung der folgenden Normen nachgewiesen:
The conformity with the state of the art is proved by compliance with the following standards:

EN ISO 13849-1:2015
EN 62061:2021
EN 61800-3:2018
EN 61800-5-2:2017
EN IEC 63000:2018

Die Übereinstimmung eines Baumusters des bezeichneten Produkts mit den EU-Richtlinien wurde bescheinigt von
The accordance of a production sample of the designated product with the EC directives is certified by

Richtlinie *Directive*	**Benannte Stelle** *Notified Body*	**Baumusterprüfbescheinigung** *type examination certificate*
2006/42/EG *2006/42/EC*	**TÜV SÜD Product Service GmbH** Ridlerstraße 65, 80339 München, Germany	**M6A 062386 0101 Rev. 00** 2023-10-26

Verantwortlich für die Zusammenstellung der technischen Unterlagen
Responsible for the compilation of technical documentation

Bevollmächtigter
Authorised person

Beckhoff Automation GmbH & Co. KG
Hülshorstweg 20, 33415 Verl, Germany

Verl, 12.12.2023

Ort / Datum
Place / Date

Dipl.-Phys. Hans Beckhoff, Geschäftsführer
Dipl.-Phys. Hans Beckhoff, CEO

Fig. 124: AX5805, AX5806 – EC Declaration of Conformity

CERTIFICATE OF COMPLIANCE

Certificate Number	20180514-E195162
Report Reference	E195162-20090220
Issue Date	2018-MAY-14
Issued to:	Beckhoff Automation GmbH & Co. KG Huelshorstweg 20 33415 VERL GERMANY
This is to certify that representative samples of	POWER CONVERSION EQUIPMENT See addendum page
	Have been investigated by UL in accordance with the Standard(s) indicated on this Certificate.
Standard(s) for Safety:	the products evaluated comply with the applicable requirements in UL 508C and CSA C22.2 No. 274-13.
Additional Information:	See the UL Online Certifications Directory at www.ul.com/database for additional information

Only those products bearing the UL Certification Mark should be considered as being covered by UL's Certification and Follow-Up Service.

Look for the UL Certification Mark on the product.

Bruce Mahrenholz, Director North American Certification Program

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Fig. 125: AX5xxx – UL Certificate, page 1

CERTIFICATE OF COMPLIANCE

Certificate Number	20180514-E195162
Report Reference	E195162-20090220
Issue Date	2018-MAY-14

This is to certify that representative samples of the product as specified on this certificate were tested according to the current UL requirements.

Models:

USL/CNL (#) - Power Conversion Equipment, Open Type, Cat. No. AX5 followed by 1 or 2, followed by 01, 03 or 06, may be followed by -, may be followed by suffixes.

USL/CNL (#) - Power Conversion Equipment, Open Type, Cat. No. AX5 followed by 1 followed by 12, 18, 25, 40 may be followed by -, may be followed by suffixes.

Note (#) - CNL only in combination with external module AX2090-TS50.

Bruce Mahrenholz, Director North American Certification Program

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Fig. 126: AX5xxx – UL Certificate, page 2

CERTIFICATE OF COMPLIANCE

Certificate Number	20141022-E195162
Report Reference	E195162-20141017
Issue Date	2014-OCTOBER-22
Issued to:	BECKHOFF AUTOMATION GMBH EISERSTRASSE 5, 33415 VERL GERMANY
This is to certify that representative samples of	POWER CONVERSION EQUIPMENT Power Conversion Equipment, Open Type, Cat. No. AX5160, AX5172, may be followed by suffixes. Have been investigated by UL in accordance with the Standard(s) indicated on this Certificate.
Standard(s) for Safety:	UL 61800-5-1 STANDARD FOR ADJUSTABLE SPEED ELECTRICAL POWER DRIVE SYSTEMS - PART 5-1: SAFETY REQUIREMENTS - ELECTRICAL, THERMAL AND ENERGY and CSA C22.2 No. 274-13,
Additional Information:	See the UL Online Certifications Directory at www.ul.com/database for additional information

Only those products bearing the UL Certification Mark should be considered as being covered by UL's Certification and Follow-Up Service.

Look for the UL Certification Mark on the product.

Bruce Mahrenholz, Assistant Chief Engineer, Global Inspection and Field Services

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Fig. 127: AX5160, AX5172 – UL Certificate

CERTIFICATE OF COMPLIANCE

Certificate Number	20141106-E195162
Report Reference	E195162-20141031
Issue Date	2014-NOVEMBER-06
Issued to:	BECKHOFF AUTOMATION GMBH EISERSTRASSE 5 33415 VERL GERMANY
This is to certify that representative samples of	POWER CONVERSION EQUIPMENT Power Conversion Equipment, Open Type, Cat. No. AX5190, AX5191, AX5192, AX5193, may be followed by suffixes.
	Have been investigated by UL in accordance with the Standard(s) indicated on this Certificate.
Standard(s) for Safety:	UL 61800-5-1 STANDARD FOR ADJUSTABLE SPEED ELECTRICAL POWER DRIVE SYSTEMS CSA C22.2 NO. 14-13 INDUSTRIAL CONTROL EQUIPMENT IEC 61800-5-1 ADJUSTABLE SPEED ELECTRICAL POWER DRIVE SYSTEMS
Additional Information:	See the UL Online Certifications Directory at www.ul.com/database for additional information

Only those products bearing the UL Certification Mark should be considered as being covered by UL's Certification and Follow-Up Service.

Look for the UL Certification Mark on the product.

Bruce Mahrenholz, Assistant Chief Engineer, Global Inspection and Field Services

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Fig. 128: AX519x – UL Certificate

3.24 AX8911

The following pages provide an overview of the current certificates for the servo drive AX8000 with integrated TwinSAFE card AX8911.

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

Product Service

CERTIFICATE

No. Z10 062386 0064 Rev. 02

Holder of Certificate: **Beckhoff Automation GmbH & Co. KG**
Hülshorstweg 20
33415 Verl
GERMANY

Certification Mark:

Product: **Safety components**

Model(s): **AX 8 Series**

Parameters: Supply voltage: 24VDC (-10%/+10%)
Ambient temperature: 0°C ... +55°C

The report listed below is a mandatory part of certificate.

Tested according to:
IEC 61508-1:2010 (up to SIL3)
IEC 61508-2:2010 (up to SIL3)
IEC 61508-3:2010 (up to SIL3)
IEC 62061:2021 (SIL 3)
EN ISO 13849-1:2015 (up to Cat.4 PL e)
IEC 61800-5-2:2016

The product was tested on a voluntary basis and complies with the essential requirements. The certification mark shown above can be affixed on the product. It is not permitted to alter the certification mark in any way. In addition the certification holder must not transfer the certificate to third parties. This certificate is valid until the listed date, unless it is cancelled earlier. All applicable requirements of the testing and certification regulations of TÜV SÜD Group have to be complied. For details see: www.tuvsud.com/ps-cert

Test report no.: BV99611C

Valid until: 2027-12-06

Date, 2022-12-07

(Claudio Gregorio)

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Fig. 129: AX8xxx – Z10 Functional Safety Certificate

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

Product Service

EC-Type Examination Certificate

No. M6A 062386 0081 Rev. 01

Holder of Certificate: **Beckhoff Automation GmbH & Co. KG**
Hülshorstweg 20
33415 Verl
GERMANY

Product: **Safety components**

Model(s): **AX 8 Series**

Parameters: Supply voltage: 24VDC (-10%/+10%)
Ambient temperature: 0°C ... +55°C

The report listed below is a mandatory part of certificate.

This EC Type Examination Certificate is issued according to Article 12(3) b or 12(4) a of Council Directive 2006/42/EC relating to machinery. It confirms that the listed Annex-IV equipment complies with the principal protection requirements of the directive. It refers only to the sample submitted to TÜV SÜD Product Service GmbH for testing and certification. For details see: www.tuvsud.com/ps-cert

Test report no.: BV99611C

Valid until: 2027-12-06

Date, 2022-12-07

(Claudio Gregorio)

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Fig. 130: AX8xxx – M6A EC-Type Examination Certificate

BECKHOFF New Automation Technology

EU-Konformitätserklärung, EU Declaration of Conformity

Hersteller *Manufacturer*	**Beckhoff Automation** GmbH & Co.KG
Anschrift *Address*	Hülshorstweg 20 33415 Verl Bundesrepublik Deutschland
Produktbezeichnung *Product description*	**Servoverstärker (siehe Anhang)** *Servo drives (see Appendix)*

Die hier genannten Baugruppen sind entwickelt, konstruiert und gefertigt in Übereinstimmung mit der Niederspannungsrichtlinie 2014/35/EU sowie der EMV-Richtlinie 2014/30/EU. Sie entsprechen den Anforderungen der RoHS-Richtlinie 2011/65/EU. Folgende Normen wurden angewandt:
The components mentioned herein have been developed, designed and manufactured in accordance with the Low Voltage Directive 2014/35/EU as well as EMC Directive 2014/30/EU. They meet the requirements of RoHS Directive 2011/65/EU. The following standards have been used:

Fachgrundnorm: EN 61000-6-2:2005 *Generic Standard: EN 61000-6-2:2005*	**Störfestigkeit für Industriebereich** *immunity for industrial environments*
Fachgrundnorm: EN 61000-6-4:2007+A1:2011 *Generic Standard: EN 61000-6-4:2007+A1:2011*	**Störaussendung für Industriebereich** *emission standard for industrial environments*
Produktnorm: EN 61800-3:2004+A1:2012 *Product Standard: EN 61800-3:2004+A1:2012*	**Drehzahlveränderbare elektrische Antriebe - EMV-Anforderungen einschließlich spezieller Prüfverfahren** *Adjustable speed electrical power drive systems – EMC requirements and specific test methods*
Produktnorm: EN 61800-5-1:2007 *Product Standard: EN 61800-5-1:2007*	**Elektrische Leistungsantriebssysteme mit einstellbarer Drehzahl – Anforderungen an die Sicherheit** *Adjustable speed electrical power drive systems – Safety requirements – Electrical, thermal and energy*
RoHS: EN 50581:2012 *RoHS: EN 50581:2012*	**Technische Dokumentation zur Regelung von Elektro- und Elektronikgeräten hinsichtlich der Beschränkung gefährlicher Stoffe** *Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances*

Verl, den / *the* **17.07.2017**

Unterschrift, *signature*
Name, *name*
Funktion, *function*

Hans Beckhoff
Geschäftsführer, *Executive Director*

1 / 2

Fig. 131: AX servo drives – EC Declaration of Conformity, page 1

BECKHOFF New Automation Technology

EU-Konformitätserklärung
EU declaration of conformity

Servoverstärker, *Servo drives*

Bestellnummer *order number*	**Bezeichnung** *designation*
AX20xx-xxxx-xxxx	**Digital Kompakt Servoverstärker**, *Digital Compact Servo Drive*
AX25xx-xxxx-xxxx	**Digital Kompakt Servoverstärker**, *Digital Compact Servo Drive*
AX5xxx-xxxx-xxxx	**Digital Kompakt Servoverstärker**, *Digital Compact Servo Drive*
AX8xxx-xxxx-xxxx	**Digital Kompakt Servoverstärker**, *Digital Compact Servo Drive*

Fig. 132: AX servo drives – EC Declaration of Conformity, page 2

CERTIFICATE OF COMPLIANCE

Certificate Number	20160608-E195162
Report Reference	E195162-20160606
Issue Date	2016-JUNE-08
Issued to:	BECKHOFF AUTOMATION GMBH & CO. KG Huelshorstweg 20 33415 VERL GERMANY
This is to certify that representative samples of	POWER CONVERSION EQUIPMENT See addendum page for models
	Have been investigated by UL in accordance with the Standard(s) indicated on this Certificate.
Standard(s) for Safety:	CSA C22.2 NO. 274-13 Adjustable Speed Drives UL 61800-5-1 Standard For Adjustable Speed Electrical Power Drive Systems - Part 5-1: Safety Requirements - Electrical, Thermal And Energy
Additional Information:	See the UL Online Certifications Directory at www.ul.com/database for additional information

Only those products bearing the UL Certification Mark should be considered as being covered by UL's Certification and Follow-Up Service.

Look for the UL Certification Mark on the product.

Bruce Mahrenholz, Director North American Certification Program

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Fig. 133: AX8xxx – UL Certificate, page 1

CERTIFICATE OF COMPLIANCE

Certificate Number	20160608-E195162
Report Reference	E195162-20160606
Issue Date	2016-JUNE-08

This is to certify that representative samples of the product as specified on this certificate were tested according to the current UL requirements.

USL/CNL – Open type power conversion equipment system AX8000 consisting of:

DC power supply units – Cat. Nos. AX8620, AX8640 followed by -0 or -1 followed by suffixes.

Servo-drive inverter units – Cat. Nos. AX8108, AX8118, AX8206 followed by -0 or -1 followed by suffixes.

Inverter units – Cat. Nos. AX8308, AX8318, AX8406 followed by -0 or -1 followed by suffixes.

Capacitor units - Cat. Nos. AX8810 followed by -0 or -1 followed by suffixes.

Bruce Mahrenholz, Director North American Certification Program

UL LLC

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Fig. 134: AX8xxx – UL Certificate, page 2

3.25 ELM8911

The following pages provide an overview of the current certificates for the servomotor ELM72xx with integrated TwinSAFE card ELM8911.

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

Product Service

CERTIFICATE

No. Z10 062386 0099 Rev. 00

Holder of Certificate: **Beckhoff Automation GmbH & Co. KG**
Hülshorstweg 20
33415 Verl
GERMANY

Certification Mark:

Product: **Safety components**

Model(s): **ELM72xx with safety card ELM8911**

Parameters:
Supply voltage: logic 24VDC / motor 48VDC
Ambient Temperature: 0°C...+55°C

Tested according to:
EN 61508-1:2010 (up to SIL 3)
EN 61508-2:2010 (up to SIL 3)
EN 61508-3:2010 (up to SIL 3)
IEC 62061:2021 (maximum SIL 3)
EN ISO 13849-1:2023
EN 61800-5-2:2017

The product was tested on a voluntary basis and complies with the essential requirements. The certification mark shown above can be affixed on the product. It is not permitted to alter the certification mark in any way. In addition the certification holder must not transfer the certificate to third parties. This certificate is valid until the listed date, unless it is cancelled earlier. All applicable requirements of the testing and certification regulations of TÜV SÜD Group have to be complied. For details see: www.tuvsud.com/ps-cert

Test report no.: BV101649C

Valid until: 2028-10-26

Date, 2023-10-31

(Peter Weiß)

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Fig. 135: ELM8911 – Z10 Functional Safety Certificate

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

Product Service

EC-Type Examination Certificate

No. M6A 062386 0100 Rev. 00

Holder of Certificate: **Beckhoff Automation GmbH & Co. KG**
Hülshorstweg 20
33415 Verl
GERMANY

Product: **Safety components**

Model(s): **ELM72xx with safety card ELM8911**

Parameters:
Supply voltage: logic 24VDC / motor 48VDC
Ambient Temperature: 0°C…+55°C

This EC Type Examination Certificate is issued according to Article 12(3) b or 12(4) a of Council Directive 2006/42/EC relating to machinery. It confirms that the listed Annex-IV equipment complies with the principal protection requirements of the directive. It refers only to the sample submitted to TÜV SÜD Product Service GmbH for testing and certification. For details see: www.tuvsud.com/ps-cert

Test report no.: BV101649C

Valid until: 2028-10-26

Date, 2023-10-31

(Peter Weiß)

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Fig. 136: ELM8911 – M6A EC-Type Examination Certificate

3.26 TwinSAFE Loader

The following page provides an overview of the current certificates for the TwinSAFE tool TwinSAFE Loader.

Rail

KONFORMITÄTSBESTÄTIGUNG
LETTER OF CONFIRMATION

TwinSAFE Loader

Hersteller: Manufacturer:	**Prüf- und Zertifizierungsstelle:** Test- and certification body:
Beckhoff Automation GmbH & Co. KG	TÜV SÜD RAIL GmbH Rail Automation
Hülshorstweg 20	Barthstraße 16
D-33415 Verl	D-80339 München

1. Allgemein / General

TwinSAFE Loader ist ein PC-basiertes Tool zum Anpassen und Laden eines TwinSAFE-Projekts. Damit lässt sich ein Sicherheitsprojekt unabhängig von der Entwicklungsumgebung (TwinCAT) auf eine TwinSAFE Sicherheitssteuerung laden.

TwinSAFE Loader is a PC-based tool to customize and download a TwinSAFE-Project. It allows to load a safety-project independent from the programming environment (TwinCAT) on a TwinSAFE programmable controller.

Version / Version

TwinSAFE Loader Version v8:

- win32: aa2781a916c769d24c6c57b92a80b378943f5fae038efbd589c31fed8a414506 (TwinSAFE_Loader.exe)
- Linux x86_64: ad6fa0edb3464e76ad8367955c12d84fa19a61a31e1ff85f2279ca435e356488 (TwinSAFE_Loader.bin)
- Linux i386: 55a806f77976e82af486b710915bc2f4a72a7d84b64d47f0a0866aa0bcc23360 (TwinSAFE_Loader-i386.bin)

2. Prüfgrundlagen / Test bases

- EN 61508-1: 2010
- EN 61508-3: 2010 (in Anlehnung / based on)

3. Zusammenfassung / Summary

Gegen den Einsatz des Tools **TwinSAFE Loader** der Fa. Beckhoff Automation GmbH & Co. KG sprechen von Seiten TÜV SÜD Rail GmbH, Rail Automation, keine sicherheitstechnischen Bedenken.

TÜV SÜD Rail GmbH, Rail Automation, has no doubts as to the safety-related issues of the use of the tool **TwinSAFE Loader**.

TÜV SÜD Rail GmbH
22. September 2022

Digital unterschrieben von Gert Effenberger Datum: 2022.09.22 10:26:13 +02'00'

G. Effenberger

Digital unterschrieben von Guido Neumann Datum: 2022.09.22 09:29:48 +02'00'

G. Neumann

Dieser Bericht wurde auf Grundlage einer TÜV-internen technischen Beurteilung erstellt.
Dieser enthält das Ergebnis einer einmaligen Untersuchung an dem zur Prüfung vorgelegten Erzeugnis.

This Report was created on basis of a TÜV internal Review Report. It includes the result of a previous examination of the product submitted for examination.

Fig. 137: TwinSAFE Loader - Confirmation of Conformity

3.27 TwinSAFE User

This page provides an overview of the current certificate for the software tool TwinSAFE User.

KONFORMITÄTSBESTÄTIGUNG
LETTER OF CONFIRMATION

TwinSAFE User

Hersteller:
Manufacturer:

Beckhoff Automation GmbH & Co. KG

Hülshorstweg 20
D-33415 Verl

Prüf- und Zertifizierungsstelle:
Test- and certification body:

TÜV SÜD RAIL GmbH
Rail Automation
Barthstraße 16
D-80339 München

1. Allgemein / General

TwinSAFE User ist ein PC-basiertes Tool, um einen Benutzer auf einer TwinSAFE Logik-Komponente unabhängig von der Entwicklungsumgebung TwinCAT anzulegen, zu löschen oder zu verändern. Die dafür nötigen Datenpakete werden über den im System vorhandenen EtherCAT-Master an die entsprechende Komponente übertragen. Die Funktionen des TwinSAFE User werden über Kommandozeilenparameter gesteuert.

TwinSAFE User is a PC-based tool to create, edit or delete a user on a TwinSAFE logic component independent from the development environment TwinCAT. The required data packages are transferred to the relevant components over the EtherCAT master, which is available in the system. The functionalities of TwinSAFE User are controlled by command line parameters.

Version / Version

TwinSAFE User Version v7:

- **Linux x86 64-Bit** (TwinSAFE_User.bin):
  SHA256: 493977c42d42fb2bb482657c1b2b0af16cb26fb450f4e2db42a60df0b8dd4493
- **Linux x86 32-Bit** (TwinSAFE_User-i386.bin):
  SHA256: 5866d701d12a7ab500a922f8b42c1210cde023bb0667e6ba6fd30579ab4a1222
- **Win32** (TwinSAFE_user.exe):
  SHA256: 157942661273d1005cf89b41d2908b51b835d9543f0d3e7a75a2baa7fcb12f9d

2. Prüfgrundlagen / Test bases

- EN 61508-1: 2010
- EN 61508-3: 2010 (Offline-Softwarewerkzeug Klasse T1 / software off-line support tool class T1)

3. Zusammenfassung / Summary

Gegen den Einsatz des Tools **TwinSAFE User** der Fa. Beckhoff Automation GmbH & Co. KG sprechen von Seiten TÜV SÜD Rail GmbH, Rail Automation, keine sicherheitstechnischen Bedenken.

TÜV SÜD Rail GmbH, Rail Automation, has no doubts as to the safety-related issues of the use of the tool **TwinSAFE User**.

TÜV SÜD Rail GmbH
July 19th, 2019

Digital unterschrieben von Guido Neumann
Datum: 2019.07.19 10:57:09 +02'00'

G. Neumann

Digital unterschrieben von Franz Seika
Datum: 2019.07.19 09:18:30 +02'00'

F. Seika

Dieser Bericht wurde auf Grundlage einer TÜV-internen technischen Beurteilung erstellt.
Dieser enthält das Ergebnis einer einmaligen Untersuchung an dem zur Prüfung vorgelegten Erzeugnis.

This Report was create on basis of a TÜV internal Review Report. It includes the result of a previous examination of the product submitted for examination.

Fig. 138: TwinSAFE User – Letter of Confirmation

3.28 TwinCAT Safety PLC

This page provides an overview of the current certificate for the PC-based safety controller TwinCAT Safety PLC.

ZERTIFIKAT ◆ CERTIFICATE ◆ 認証書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

Product Service

CERTIFICATE

No. Z10 16 12 62386 035

Holder of Certificate: **Beckhoff Automation GmbH & Co. KG**
Hülshorstweg 20
33415 Verl
GERMANY

Factory(ies): 62386

Certification Mark:

Product: **Safety-Related Programmable Systems**

Model(s): **TwinCAT Safety PLC**

Parameters:

Supply voltage:	SELV/PELV
Protection class:	IP 20
Ambient temperature:	0°C ... +55°C

The report referenced below and the user documentation in the currently valid revision are mandatory part of this certificate. The product complies with the following listed safety requirements only if the specifications documented in the currently valid revisions of this report are met.

Tested according to:
IEC 61508-1(ed.2) (SIL 3)
IEC 61508-2(ed.2) (SIL 3)
IEC 61508-3(ed.2) (SIL 3)
IEC 61508-4(ed.2) (SIL 3)
EN ISO 13849-1:2015 (Cat 4, PL e)

The product was tested on a voluntary basis and complies with the essential requirements. The certification mark shown above can be affixed on the product. It is not permitted to alter the certification mark in any way. In addition the certification holder must not transfer the certificate to third parties. See also notes overleaf.

Test report no.: **BV90306C**

Valid until: 2021-12-08

Date, 2016-12-12 (Jürgen Blum)

719713

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A1 / 04.11

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Fig. 139: TwinCAT Safety PLC – Z10 Functional Safety Certificate

3.29 TwinSAFE Application Guide

This page provides an overview of the current certificate for the Application Guide TwinSAFE.

KONFORMITÄTSBESTÄTIGUNG
LETTER OF CONFIRMATION

Rail

BV89987T

Applikationshandbuch TwinSAFE
(Application guide TwinSAFE)

Hersteller: / Manufacturer:	Prüfstelle: / Test body:
Beckhoff Automation GmbH & Co. KG Huelshorstweg 20 D-33415 Verl	TÜV SÜD RAIL GmbH Rail Automation Barthstr. 16 D-80339 München

1. Allgemein / General

Das **"Applikationshandbuch TwinSAFE"** zeigt die Berechnungen der sicherheitsrelevanten Kennwerte bezüglich der Wahrscheinlichkeit gefahrbringender zufälliger Hardwareausfälle (MTTFd und PFH) nach EN 61508 bzw. EN ISO 13849-1.

The **"Application guide TwinSAFE"** shows calculations of the safety relevant parameters of the probability of dangerous random hardware failures (MTTFd and PFH) according to EN 61508 respectively EN ISO 13849-1.

2. Prüfgrundlagen / Test bases

Berechnung des $MTTF_d$ und DC entsprechend EN ISO 13849-1:2015 Calculation of $MTTF_d$ and DC in accordance with EN ISO 13849-1:2015
Berechnung des PFH entsprechend EN 61508:2010 Calculation of PFH in accordance with EN 61508:2010
Applikationshandbuch TwinSAFE Version 3.0.0 Application guide TwinSAFE version 3.0.0

3. Zusammenfassung / Summary

Die Applikationsbeispiele des "Applikationshandbuch TwinSAFE" der Firma Beckhoff Automation GmbH & Co. KG wurden von der TÜV SÜD Rail GmbH, Rail Automation, überprüft und bestätigt.

The application examples in the "Application guide TwinSAFE" were checked and confirmed by TÜV SÜD Rail GmbH, Rail Automation.

TÜV SÜD Rail GmbH
2020-07-20

Digital unterschrieben von Guido Neumann
Datum: 2020.07.20 12:46:21 +02'00'

G. Neumann
Technical Certifier

Digital unterschrieben von Thomas Kreten
Datum: 2020.07.20 12:22:59 +02'00'

T. Kreten
Project Leader

Diese Bestätigung wurde auf Grundlage einer TÜV-internen technischen Beurteilung erstellt.
Diese enthält das Ergebnis einer einmaligen Untersuchung an dem zur Prüfung vorgelegten Erzeugnis.

This confirmation was created on basis of a TÜV internal technical review report.
It includes the result of a one-time examination of the product submitted for examination.

Fig. 140: Application Guide – Letter of Confirmation

3.30 Safety over EtherCAT (FSoE)

This page provides an overview of the current certificate for the protocol Safety over EtherCAT (FSoE / FailSafe over EtherCAT).

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

TÜV SÜD Product Service

CERTIFICATE

No. Z10 18 04 62386 053

Holder of Certificate: Beckhoff Automation GmbH & Co. KG
Hülshorstweg 20
33415 Verl
GERMANY

Factory(ies): 62386

Certification Mark:

Product: Safety related automation systems

Model(s): TwinSAFE / Safety over EtherCAT

Parameters: Protocol specification as stated in evaluation report

Tested according to:
IEC 61508-1:2010 (SIL3)
IEC 61508-2:2010 (SIL3)
IEC 61508-3:2010 (SIL3)
IEC 61508-4:2010 (SIL3)
IEC 61784-3:2016

The product was tested on a voluntary basis and complies with the essential requirements. The certification mark shown above can be affixed on the product. It is not permitted to alter the certification mark in any way. In addition the certification holder must not transfer the certificate to third parties. See also notes overleaf.

Test report no.: BV81379G

Valid until: 2023-04-16

Date, 2018-04-17 (Günter Greil)

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Fig. 141: Safety over EtherCAT – Z10 Functional Safety Certificate

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