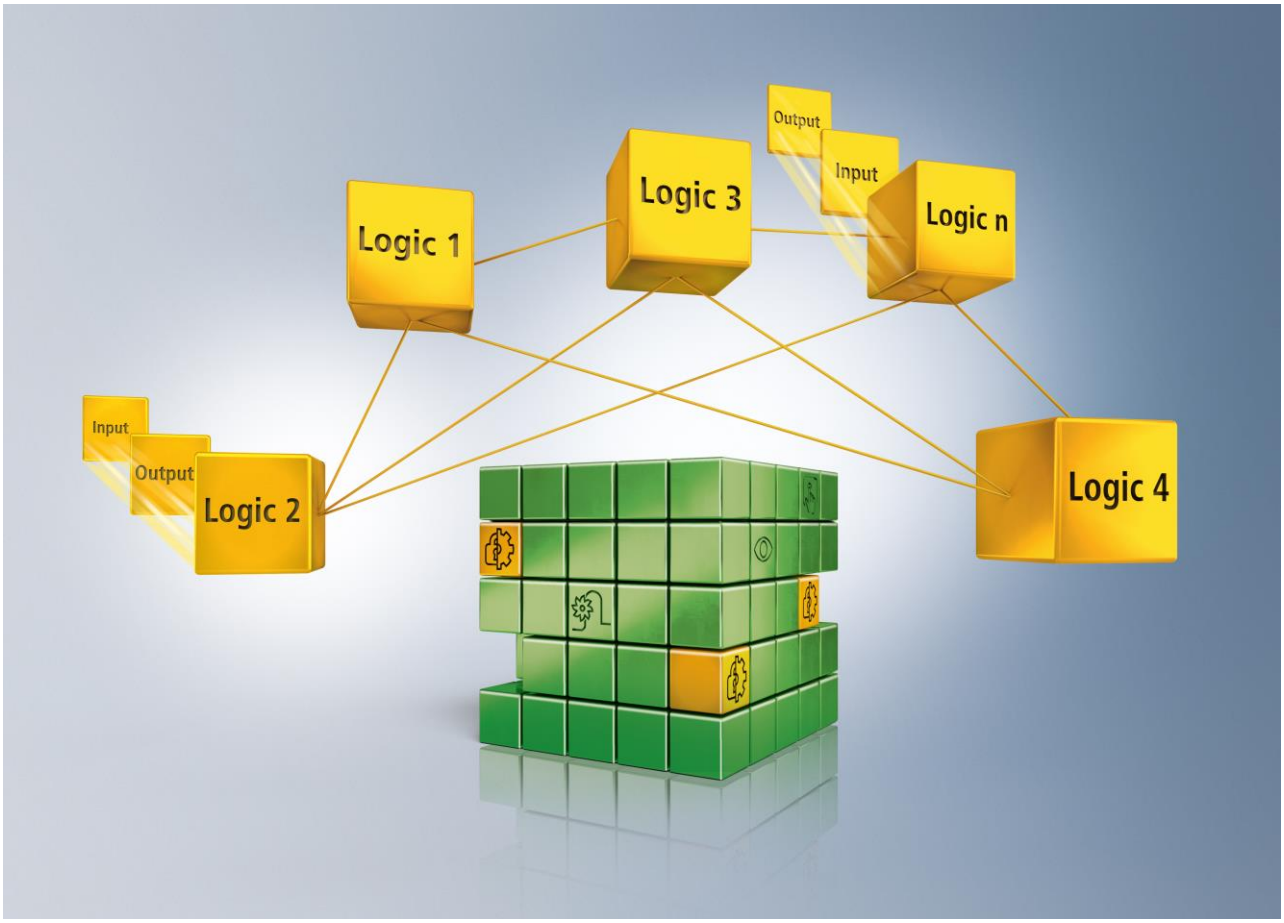


Overview of

TwinSAFE Certifications

Version: 1.10.0
Date: 2020-12-08

BECKHOFF

Table of contents

1 Foreword

1.1 Notes on the documentation

1.1.1 Intended audience

This description is only intended for the use of trained specialists in control and automation engineering who are familiar with the applicable national standards.

It is essential that the following notes and explanations are followed when installing and commissioning these components.

The responsible staff must ensure that the application or use of the products described satisfy all the requirements for safety, including all the relevant laws, regulations, guidelines and standards.

1.1.2 Origin of the document

This documentation was originally written in German. All other languages are derived from the German original.

1.1.3 Currentness

Please check whether you are using the current and valid version of this document. The current version can be downloaded from the Beckhoff homepage at http://www.beckhoff.com/english/download/twinsafe.htm. In case of doubt, please contact the Technical Support (see chapter 4 Support and Service)

1.1.4 Product features

Only the product features specified in the current user documentation are valid. Further information given on the product pages of the Beckhoff homepage, in emails or in other publications is not authoritative.

1.1.5 Disclaimer

The documentation has been prepared with care. The products described are subject to cyclical revision. For that reason the documentation is not in every case checked for consistency with performance data, standards or other characteristics. We reserve the right to revise and change the documentation 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 this documentation.

1.1.6 Trademarks

Beckhoff®, TwinCAT®, EtherCAT®, EtherCAT P®, Safety over EtherCAT®, TwinSAFE®, XFC® and XTS® are registered trademarks of and licensed by Beckhoff Automation GmbH.
Other designations used in this publication may be trademarks whose use by third parties for their own purposes could violate the rights of the owners.

1.1.7 Patent Pending

The EtherCAT Technology is covered, including but not limited to the following patent applications and patents: EP1590927, EP1789857, DE102004044764, DE102007017835 with corresponding applications or registrations in various other countries.
The TwinCAT Technology is covered, including but not limited to the following patent applications and patents: EP0851348, US6167425 with corresponding applications or registrations in various other countries.

EtherCAT® and Safety over EtherCAT® are registered trademarks and patented technologies, licensed by Beckhoff Automation GmbH, Germany.

1.1.8 Copyright

1.1.9 Delivery conditions

In addition, the general delivery conditions of the company Beckhoff Automation GmbH & Co. KG apply.

1.2 Safety instructions

1.2.1 Delivery state

All the components are supplied in particular hardware and software configurations appropriate for the application. Modifications to hardware or software configurations other than those described in the documentation are not permitted, and nullify the liability of Beckhoff Automation GmbH & Co. KG.

1.2.2 Operator's obligation to exercise diligence

The operator must ensure that

- the TwinSAFE products are only used as intended (see chapter Product description)
- the TwinSAFE products are only operated in sound condition and in working order.
- the TwinSAFE products are operated only by suitably qualified and authorized personnel.
- the personnel is instructed regularly about relevant occupational safety and environmental protection aspects, and is familiar with the operating instructions and in particular the safety instructions contained herein.
- the operating instructions are in good condition and complete, and always available for reference at the location where the TwinSAFE products are used.
- none of the safety and warning notes attached to the TwinSAFE products are removed, and all notes remain legible.

1.2.3 Description of safety symbols

In these operating instructions the following instructions are used. These instructions must be read carefully and followed without fail!

⚠ DANGER

Serious risk of injury!

Failure to follow this safety instruction directly endangers the life and health of persons.

⚠ WARNING

Risk of injury!

Failure to follow this safety instruction endangers the life and health of persons.

⚠ CAUTION

Personal injuries!

Failure to follow this safety instruction can lead to injuries to persons.

NOTE

Damage to the environment/equipment or data loss

Failure to follow this instruction can lead to environmental damage, equipment damage or data loss.

Tip or pointer

This symbol indicates information that contributes to better understanding.

1.3 Documentation issue status

Version	Comment
1.10.0	• EP1918 UL certificate updated
1.9.0	• AX8xxx-x1xx/AX8xxx-x2xx certificate updated
1.8.0	• EL2912 EC Conformity declaration added • EP2918 EC Conformity declaration added • EP1918 EC Conformity declaration 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 certificate added
1.3.1	• Update of the AX5805/AX5806 certificate
1.3.0	• UR note for EP1957 added • UL certifications EL1918, EL2911, EL2912 added
1.2.0	• Change to docx format • UL certificates sortet • EC Conformity declaration added: EL1918, EL2911 and EP1957
1.1.0	• Z10 and M6A certificates of 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	• Date of expiry of certificates added
0.2.0	• Marking and table expanded
0.1.0	• First draft

2 Overview of 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

Marks	Description
TÜV SÜD Z10	A Z10 certificate is issued for the use of the product in the European Union and contains the relevant DIN, EN or IEC standards for the product (e.g. EN ISO 13849-1:2015). The corresponding standards are listed in the table.
Declaration of conformity	A TÜV SÜD conformity declaration typically has no expiration date and confirms a specific property of a product at the time of testing.
TÜV SÜD U8	A U8 certificate is issued for NRTL, NFPA, CSA certification and includes standards relevant to the North American market. The table lists the relevant standards.
M6A	An M6A certificate is the EC-Type Examination Certificate for the corresponding TwinSAFE product.
EC	Beckhoff Automation GmbH & Co. KG issues the EC Declaration of Conformity on the basis of the corresponding 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	The EC declaration of conformity listed the EN 50581:2012. Thus the RoHS marking *RoHS 2011/65/EU* may be attached to the product. This mark is not listed separately in the table.
CE	On the basis of the EC declaration of conformity, a CE mark may be affixed to the product. This mark is not listed separately in the table.
EAC	For the Russian market or the countries Russia, Belarus, Armenia, Kazakhstan and Kyrgyzstan, the EAC logo must be affixed to the product. For manufacturers outside Russia or the EAWU (Eurasian Economic Union), an authorized representative in the EAWU is required, who is responsible for the 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 is focused on electrical safety and electromagnetic compatibility. *(Australian Standard AS/NZS 4417 - Regulatory compliance mark for electrical and electronic equipment* supplemented by Amendment 2 of January 2016*)*

2.2 Product marking

The Beckhoff TwinSAFE products are provided with the following logos if the corresponding requirements for the use of the logo are fulfilled. 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.

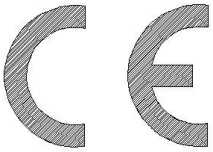


Figure 1 - CE Marking

2.2.2 RoHS

Beckhoff uses the RoHS label with a hash and the name of the current directive.

Figure 2 - RoHS Marking

2.2.3 UL 508 / UL 61010

The UL marking varies according to the TwinSAFE product. AWG 28-16 is used for terminals (here e.g. HD housing), for other products this marking must be removed or adapted. The temperature must also be adapted to the specified maximum ambient temperature. Ind.Cont.Eq (Industrial Control Equipment) is the marking under which the product is certified. 24TB is the identifier for Beckhoff Automation GmbH & Co. KG.

Figure 3 - UL Marking

Products that receive the UL Recognized logo are incomplete in certain design features or limited in performance. In the list of products, these are identified as components.

Figure 4 - UL Recognition Marking

2.2.4 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.

Figure 5 - TÜV SÜD Marking

2.2.5 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.

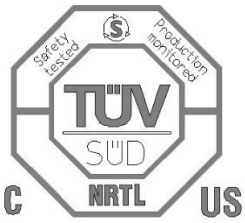


Figure 6 - TÜV SÜD NRTL Marking

2.2.6 Safety-over-EtherCAT

The Safety over EtherCAT marking is affixed to the product when the FSoE Conformance Test has been successfully completed.

Figure 7 - Safety-over-EtherCAT Marking

2.2.7 EAC

The EAC logo is used for the Russian market and is comparable to the CE marking. The EAC logo replaces the GOST R logo and applies to the countries Russia, Belarus, Armenia, Kazakhstan, Kyrgyzstan (EAWU - Eurasian Economic Union).

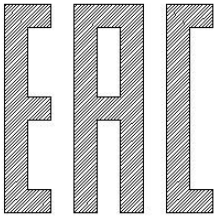


Figure 8 - EAC Marking

2.2.8 ATEX

The ATEX logo is affixed to the product when ATEX Zone 2 approval has been obtained. The previous certification was carried out by KEMA, but in future it can also be carried out by DEKRA. The logo must then be adapted accordingly.

Figure 9 - ATEX Marking

2.2.9 CCC

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

Figure 10 - CCC Logo

2.2.10 KC

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

Figure 11 - KC Mark

2.2.11 RCM (formerly C-Tick)

Regulatory Compliance Mark is used for the Australian market. This mark has replaced the C-Tick logo.

Figure 12 - RCM Mark

2.3 TwinSAFE products

The following table contains a list of the certifications of the TwinSAFE products with the associated standards and guidelines.

Explanation of symbols / signs	Description
-	Document or certification does not exist
x	Document or certification exists and is listed in annex
<Date>	Expiration date of the certificate (English date format)
n.a.	Not applicable
OCD	Online Certification Directory (UL 61010 / UL 508) UL File number: E172151 UL Category Code: NRAQ2 / NRAQ8
column *Other*	This column lists all additional certificates or confirmations, such as UL Recognition or ATEX.

Group	Product	TÜV SÜD Z10 / conformity declaration	TÜV SÜD U8	M6A	EC	cULus	Other
KL	KL1904	EN ISO 13849-1:2015 EN 61508:2010 EN 62061:2005/A2:2015 2006/42/EC EN 81-20:2014 EN 81-22:2014 EN 81-50:2014 EN 13243:2015 (2024-06-06)	CAN/CSA-C22.2 UL1998 UL991	2023-01-25	x	x	ATEX
	KL2904	EN ISO 13849-1:2015 EN 61508:2010 EN 62061:2005/A2:2015 2006/42/EC EN 81-20:2014 EN 81-22:2014 EN 81-50:2014 EN 13243:2015 (2024-06-06)	CAN/CSA-C22.2 UL1998 UL991	2023-01-25	x	x	ATEX
	KL6904	EN ISO 13849-1:2015 EN 61508:2010 2006/42/EC EN 81-20:2014 EN 81-22:2014 EN 81-50:2014 EN 13243:2015 (2022-10-15)	CAN/CSA-C22.2 UL1998 UL991	2022-07-27	x	x	ATEX

Group	Product	TÜV SÜD Z10 / conformity declaration	TÜV SÜD U8	M6A	EC	cULus	Other
EL	EL1904	EN ISO 13849-1:2015 EN 61508:2010 EN 62061:2005/A2:2015 2006/42/EC EN 81-20:2014 EN 81-22:2014 EN 81-50:2014 EN 13243:2015 (2024-06-06)	CAN/CSA-C22.2 UL1998 UL991	2023-01-25	x	x	ATEX
	EL2904	EN ISO 13849-1:2015 EN 61508:2010 EN 62061:2005/A2:2015 2006/42/EC EN 81-20:2014 EN 81-22:2014 EN 81-50:2014 EN 13243:2015 (2024-06-06)	CAN/CSA-C22.2 UL1998 UL991	2023-01-25	x	x	ATEX
	EL6900	EN ISO 13849-1:2015 EN 61508:2010 2006/42/EC EN 81-20:2014 EN 81-22:2014 EN 81-50:2014 EN 13243:2015 (2022-10-15)	CAN/CSA-C22.2 UL1998 UL991	2022-07-27	x	x	ATEX
	EL6930	EN ISO 13849-1:2015 EN 61508:2010 2006/42/EC EN 81-20:2014 EN 81-22:2014 EN 81-50:2014 EN 13243:2015 (2022-10-15)	-	2022-07-27	x	x	-
	EL6910	EN ISO 13849-1:2015 EN 61508:2010 2006/42/EC EN 62061:2005/A2:2015 (EN 81-20, EN 81-22, EN 81-50 entsprechend Dokumentation) (2021-12-14)	-	2022-07-27	x	x	-
	EL1918	EN ISO 13849-1:2015 EN 61508:2010 2006/42/EC EN 62061:2005/A2:2015 EN 81-20, EN 81-22, EN 81-50 (2023-08-08)	-	2023-08-12	x	x	-
	EL2911	EN ISO 13849-1:2015 EN 61508:2010 2006/42/EC EN 62061:2005/A2:2015 EN 81-20, EN 81-22, EN 81-50 (2023-08-15)	-	2023-08-16	x	x	-
	EL2912	EN ISO 13849-1:2015 EN 61508:2010 2006/42/EC EN 62061:2005/A2:2015 (2024-07-25)	-	2024-07-25	-	x	-

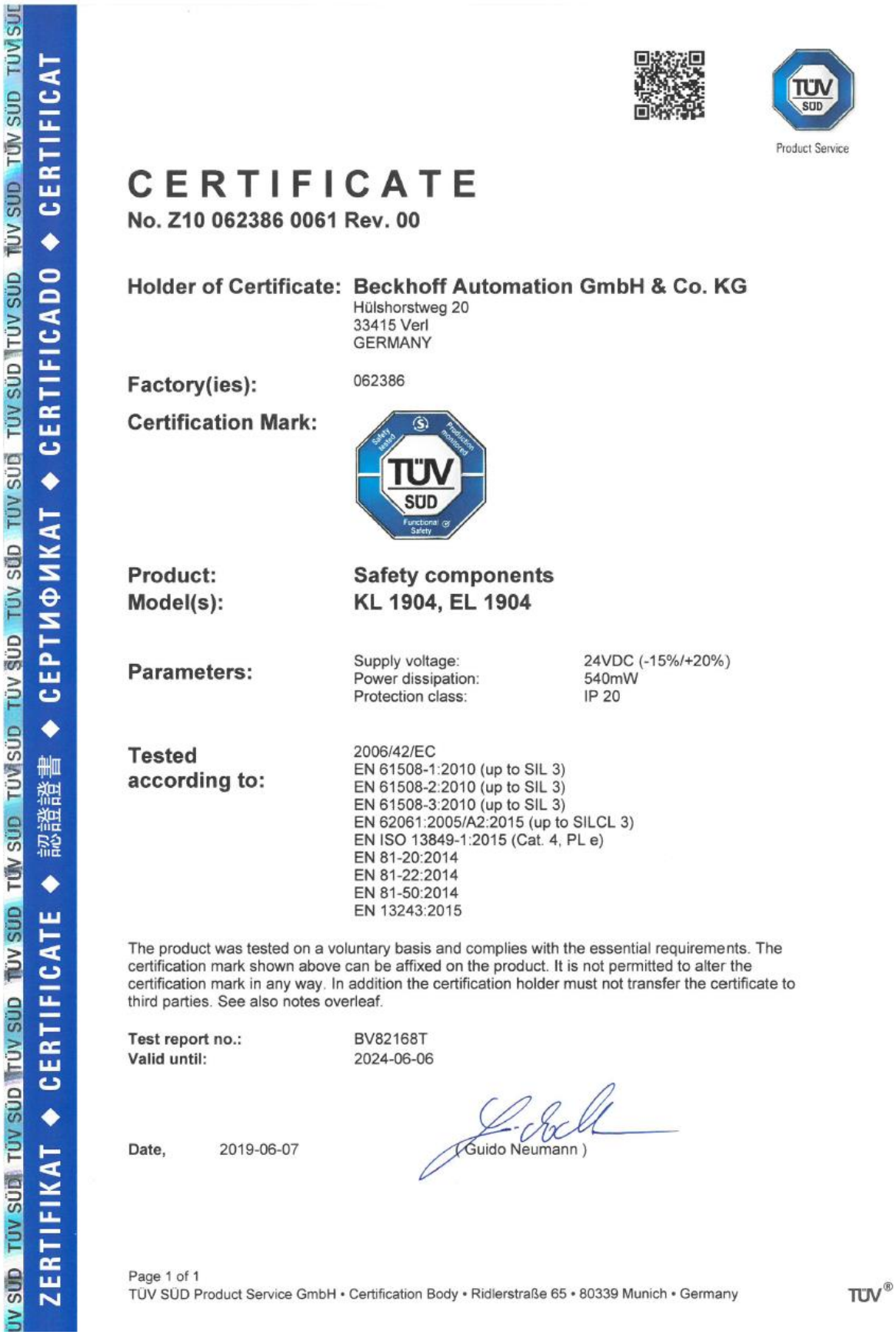
Group	Product	TÜV SÜD Z10 / conformity declaration	TÜV SÜD U8	M6A	EC	cULus	Other
EP	EP1908	EN ISO 13849-1:2015 EN 61508:2010 2006/42/EC (2022-10-19)	-	2022-07-27	x	-	c*UR*us Note on the product (Class 2 power supply or 4A fuse)
	EP1918	-	-	-	-	-	
	EP1957	EN ISO 13849-1:2015 EN 61508:2010 2006/42/EC EN 62061:2005/A2:2015 EN 81-20, EN 81-22, EN 81-50 (2023-08-15)	-	2023-08-16	x	-	c*UR*us Note on the product (Class 2 power supply or 4A fuse)
	EP2918	EN ISO 13849-1:2015 EN 61508:2010 2006/42/EC EN 62061:2005/A2:2015 (2024-11-11)	UL61010-1:2012/R:2018-11 UL61010-2-201:2018 CAN/CSA-C22.2 No. 61010-1:2012 / A1:2018-11 CAN/CSA-C22.2 No. 61010-2-201:2018	2024-11-11	-	-	-
EK	EK1914	EN ISO 13849-1:2015 (2022-10-19)	-	2022-07-27	x	x	-
	EK1960	EN ISO 13849-1:2015 EN 61508:2010 EN 62061:2005/A2:2015 (2022-04-20)	-	2022-07-04	x	x	-
EJ	EJ6910	EN ISO 13849-1:2015 EN 61508:2010 2006/42/EC EN 62061:2005/A2:2015 (EN 81-20, EN 81-22, EN 81-50 entsprechend Dokumentation) (2021-12-14)	-	2022-07-27	x	-	c*UR*us (OCD)
	EJ1914	EN ISO 13849-1:2015 EN 61508:2010 2006/42/EC EN 62061:2005/A2:2015 (2022-04-18)	-	2022-07-27	x	-	c*UR*us (OCD)
	EJ1918	EN ISO 13849-1:2015 EN 61508:2010 2006/42/EC EN 62061:2005/A2:2015 (2022-04-18)	-	2022-07-27	x	-	c*UR*us (OCD)
	EJ1957	EN ISO 13849-1:2015 EN 61508:2010 2006/42/EC EN 62061:2005/A2:2015 (2022-04-18)	-	2022-07-27	x	-	c*UR*us (OCD)
	EJ2914	EN ISO 13849-1:2015 EN 61508:2010 2006/42/EC EN 62061:2005/A2:2015 (2022-04-18)	-	2022-07-27	x	-	c*UR*us (OCD)
	EJ2918	EN ISO 13849-1:2015 EN 61508:2010 2006/42/EC EN 62061:2005/A2:2015 (2022-04-18)	-	2022-07-27	x	-	c*UR*us (OCD)

Group	Product	TÜV SÜD Z10 / conformity declaration	TÜV SÜD U8	M6A	EC	cULus	Other
Motion	AX5801	ISO 13849-1:2006 EN 61508:2010 2006/42/EC EN 62061:2005/A1:2013 (2020-03-05)	-	-	AX5xxx	see AX5xxx	-
	AX5805	EN ISO 13849-1:2015 EN 61508:2010 2006/42/EC EN 62061:2005/A2:2015 EN 61800-5-2:2017 (2023-03-26)	-	-	AX5xxx	see AX5xxx	-
	AX5806	EN ISO 13849-1:2015 EN 61508:2010 2006/42/EC EN 62061:2005/A2:2015 EN 61800-5-2:2017 (2023-03-26)	-	-	AX5xxx	see AX5xxx	-
	AX8xxx-x1xx (AX8911)	EN ISO 13849-1:2015 EN 61508:2010 2006/42/EC EN 62061:2005/A2:2015 IEC 61800-5-2:2016 (2022-07-25)	-	-	AX8xxx	see AX8xxx	-
	AX8xxx-x2xx (AX8911)	-	-	-	-	-	-
Software	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	EN ISO 13849-1:2015 EN 61508:2010 (2021-12-08)	n.a.	n.a.	n.a.	n.a.	-
Diverse	TwinSAFE Application Guide	EN ISO 13849-1:2015 EN 61508:2010	n.a.	n.a.	n.a.	n.a.	-
	Safety-overEtherCAT (FSoE)	IEC 61508:2010 IEC 61783-3:2016 (2023-04-16)	n.a.	n.a.	n.a.	n.a.	-

3 TÜV certificates and EC Declaration of Conformity

This document contains the public documents for the certification of the corresponding products. Further or more detailed information and documents are typically not published.
The following chapters list the relevant certificates 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



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

Product Service

CERTIFICATE

No. Z10 062386 0061 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): **KL 1904, EL 1904**

Parameters:

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

Tested according to:

2006/42/EC
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 62061:2005/A2:2015 (up to SILCL 3)
EN ISO 13849-1:2015 (Cat. 4, PL e)
EN 81-20:2014
EN 81-22:2014
EN 81-50:2014
EN 13243:2015

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: 2024-06-06

Date, 2019-06-07 (Guido Neumann)

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

Figure 13 - KL1904 Z10-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 C NRTL 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

TÜV AMERICA INC. • TÜV SÜD Group • Certification Body • 5 Cherry Hill Drive • Danvers MA 01923 USA

Figure 14 - KL1904 U8-Certificate

ZERTIFIKAT ◆ CERTIFICATE ◆ 認証書 ◆ 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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TÜV®

Figure 15 - KL1904 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

Figure 16 - 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

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Figure 17 - UL-KL Page 3

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: **7**

(4) Product: **Fieldbus Components Type BK ..., Type BC ..., Type KL ..., Type KS ..., Type EK ..., 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 7.

(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: 8 June 2018

DEKRA Certification B.V.

R. Schuller
Certification Manager

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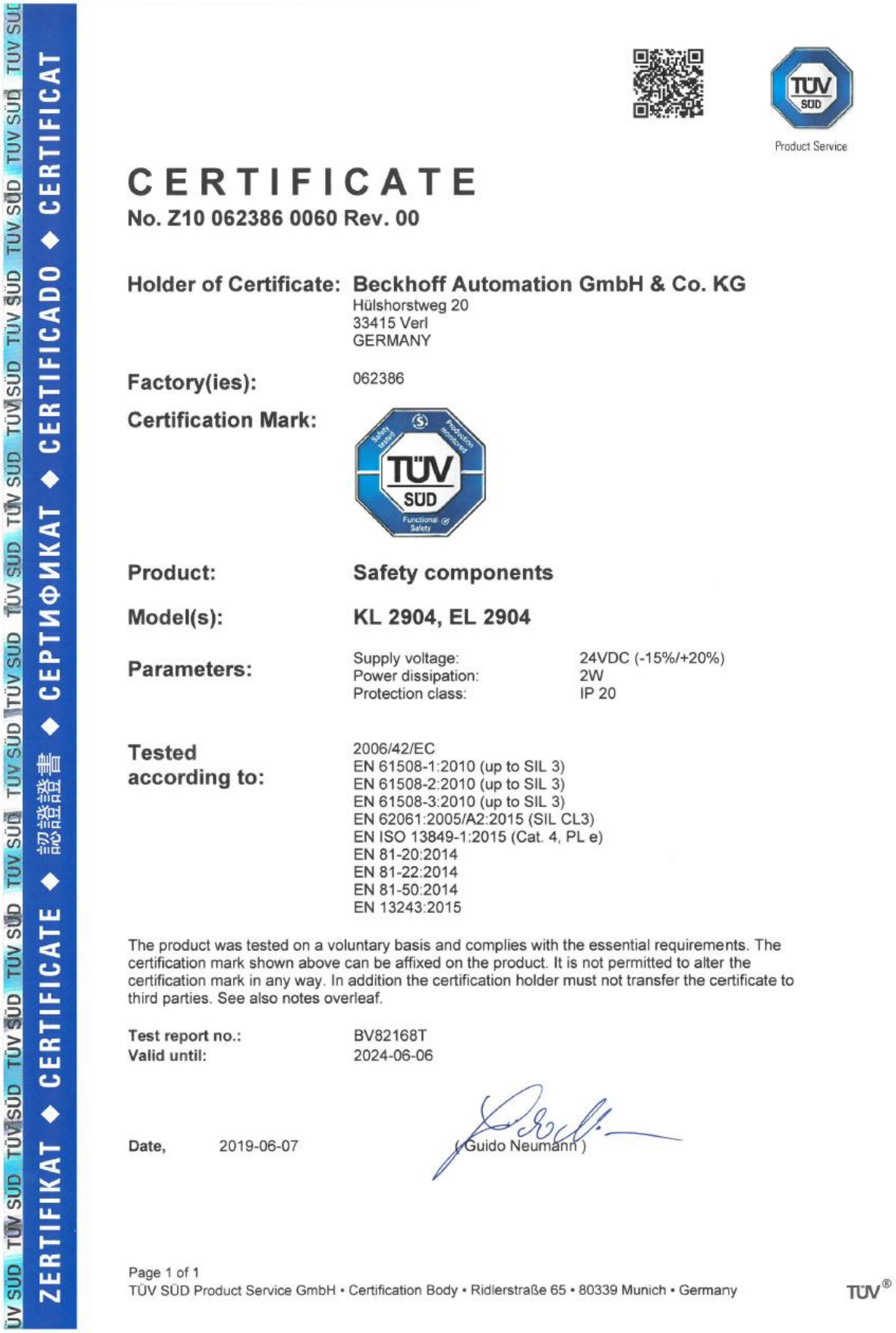
DEKRA Certification B.V. Meander 1051, 6825 MJ Arnhem P.O. Box 5185, 6802 ED Arnhem The Netherlands
T +31 88 96 83000 F +31 88 96 83100 www.dekra-certification.com Registered Arnhem 09085396

Figure 18 - ATEX Certificate

3.2 KL2904



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

Product Service

CERTIFICATE

No. Z10 062386 0060 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): **KL 2904, EL 2904**

Parameters:

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

Tested according to:

2006/42/EC
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 62061:2005/A2:2015 (SIL CL3)
EN ISO 13849-1:2015 (Cat. 4, PL e)
EN 81-20:2014
EN 81-22:2014
EN 81-50:2014
EN 13243:2015

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: 2024-06-06

Date, 2019-06-07 (Guido Neumann)

Page 1 of 1
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Figure 19 - KL2904 Z10-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 C NRTL 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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Figure 20 - KL2904 U8-Certificate

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

Product Service

EC-Type Examination Certificate

No. M6A 18 01 62386 048

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

Product: **Safety components**

Model(s): **KL 2904, EL 2904**

Parameters:

Supply voltage:	24VDC (-15%/+20%)
Power dissipation:	2W
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.: BV82168

Valid until: 2023-01-25

737039

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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Figure 21 - KL2904 EC Type Examination Certificate

BECKHOFF New Automation Technology

Originalerklärung
Original declaration

EG-Konformitätserklärung

EC Declaration of Conformity

Nummer: 2013019KL2904-1, 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 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 61000-6-2:2011	**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 019, 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*

Figure 22 - 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

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Figure 23 - UL-KL Page 4

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: **7**

(4) Product: **Fieldbus Components Type BK ..., Type BC ..., Type KL ..., Type KS ..., Type EK ..., 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 7.

(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: 8 June 2018

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-certification.com Registered Arnhem 09085396

Figure 24 - ATEX Certificate

3.3 KL6904

ZERTIFIKAT ◆ CERTIFICATE ◆ 認証証書 ◆ 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 Greil)

719938

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Figure 25 - KL6904, EL6900, EL6930 Z10-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:	Safety tested · Production monitored · TÜV PRODUCT SERVICE · C NRTL 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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Figure 26 - KL6904 U8-Certificate

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

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)

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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Figure 27 - KL6904, EL6900, EL6930, EL6910, EJ6910 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

Figure 28 - 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

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Figure 29 - UL-KL Page 6

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: **7**

(4) Product: **Fieldbus Components Type BK ..., Type BC ..., Type KL ..., Type KS ..., Type EK ..., 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 7.

(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: 8 June 2018

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-certification.com Registered Arnhem 09085396

Figure 30 - ATEX Certificate

3.4 EL1904

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

Product Service

CERTIFICATE

No. Z10 062386 0061 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): **KL 1904, EL 1904**

Parameters:

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

Tested according to:

2006/42/EC
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 62061:2005/A2:2015 (up to SILCL 3)
EN ISO 13849-1:2015 (Cat. 4, PL e)
EN 81-20:2014
EN 81-22:2014
EN 81-50:2014
EN 13243:2015

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: 2024-06-06

Date, 2019-06-07 (Guido Neumann)

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Figure 31 - EL1904 Z10-Certificate

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

TÜV SÜD America

CERTIFICATE

No. U8 10 07 62386 006

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

Production Facility(ies): 62386

Certification Mark: Safety tested · Production monitored · TÜV PRODUCT SERVICE · C NRTL US

Product: **Controller (Industrial Control Equipment)**

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

Parameters:

Supply voltage:	24 VDC
Power dissipation:	540mW (EL1904) 2 W (EL2904; EL6900)

Tested according to:
UL 508:2008
CAN CSA C22.2 No. 142-M1987:2004
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. This product certification system operated by TÜV SÜD America Inc. most closely resembles that described by ISO/IEC Guide 67, Conformity assessment - Fundamentals of product certification, System 3. See also notes overleaf.

Test report no.: 028-71369861-000

Date, 2010-07-02

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UCB / 01.08

Figure 32 - EL1904, EL2904, EL6900 U8-Certificate

ZERTIFIKAT ◆ CERTIFICATE ◆ 認証書 ◆ 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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Figure 33 - EL1904 EC Type Examination Certificate

BECKHOFF New Automation Technology

Originalerklärung
Original declaration

EG-Konformitätserklärung

EC Declaration of Conformity

Nummer: 2013020EL1904-1, 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 EL1904** 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

Figure 34 - EL1904 EC Declaration of Conformity

CERTIFICATE OF COMPLIANCE

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

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	EK1960

Bruce Mahrenholz, Director North American Certification Program

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Figure 35 – EL1904 UL-EL 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: **7**

(4) Product: **Fieldbus Components Type BK ..., Type BC ..., Type KL ..., Type KS ..., Type EK ..., 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 7.

(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: 8 June 2018

DEKRA Certification B.V.

R. Schuller
Certification Manager

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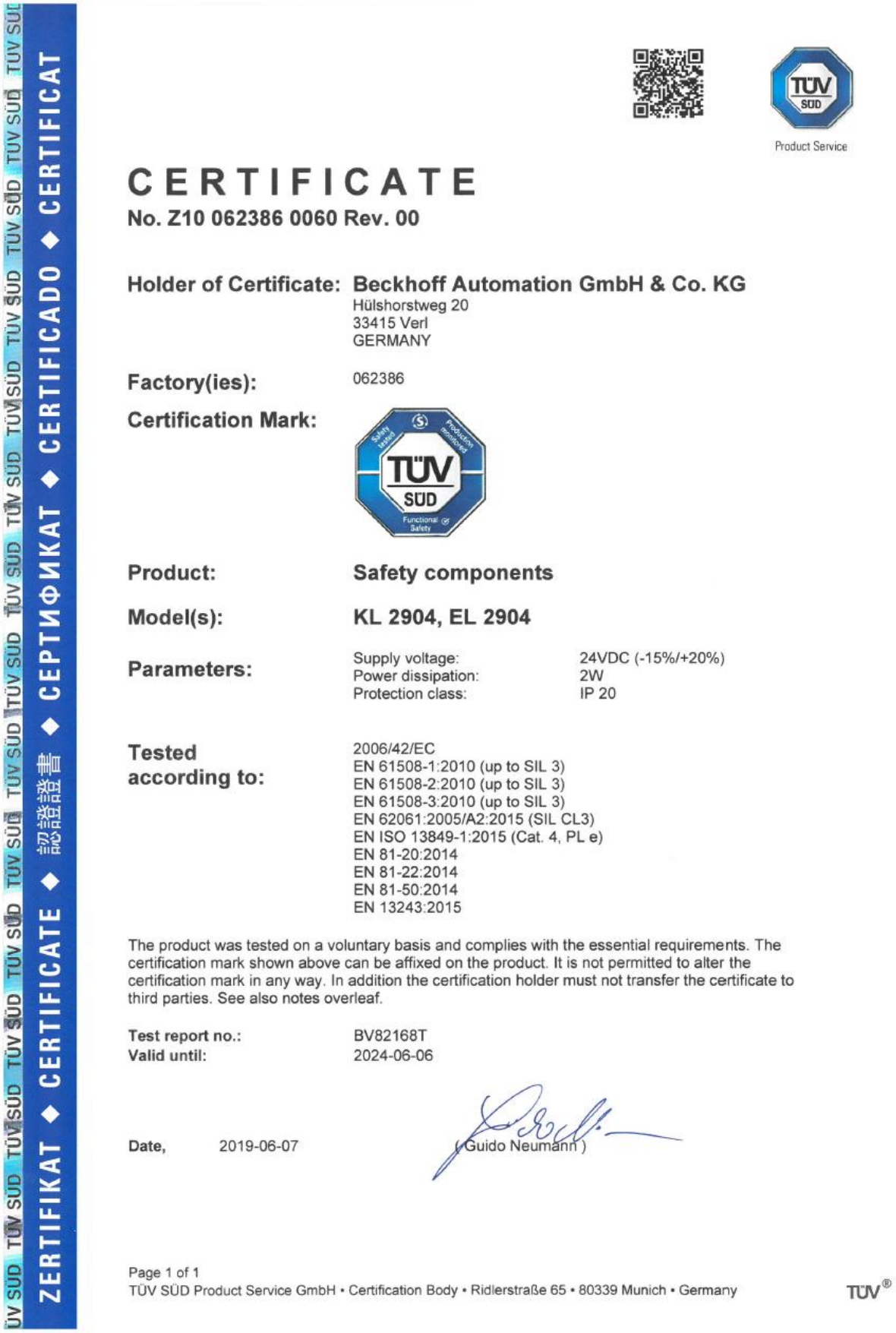
DEKRA Certification B.V. Meander 1051, 6825 MJ Arnhem P.O. Box 5185, 6802 ED Arnhem The Netherlands
T +31 88 96 83000 F +31 88 96 83100 www.dekra-certification.com Registered Arnhem 09085396

Figure 36 - ATEX Certificate

3.5 EL2904



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

TÜV SÜD Product Service

CERTIFICATE

No. Z10 062386 0060 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): **KL 2904, EL 2904**

Parameters:

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

Tested according to:
2006/42/EC
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 62061:2005/A2:2015 (SIL CL3)
EN ISO 13849-1:2015 (Cat. 4, PL e)
EN 81-20:2014
EN 81-22:2014
EN 81-50:2014
EN 13243:2015

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: 2024-06-06

Date, 2019-06-07 (Guido Neumann)

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Figure 37 - EL2904 Z10-Certificate

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

TÜV SÜD America

CERTIFICATE

No. U8 10 07 62386 006

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

Production Facility(ies): 62386

Certification Mark: Safety tested · Production monitored · TÜV PRODUCT SERVICE · C NRTL US

Product: **Controller (Industrial Control Equipment)**

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

Parameters:

Supply voltage:	24 VDC
Power dissipation:	540mW (EL1904) 2 W (EL2904; EL6900)

Tested according to:
UL 508:2008
CAN CSA C22.2 No. 142-M1987:2004
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. This product certification system operated by TÜV SÜD America Inc. most closely resembles that described by ISO/IEC Guide 67, Conformity assessment - Fundamentals of product certification, System 3. See also notes overleaf.

Test report no.: 028-71369861-000

Date, 2010-07-02

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Figure 38 -EL1904, EL2904, EL6900 U8-Certificate

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

Product Service

EC-Type Examination Certificate

No. M6A 18 01 62386 048

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

Product: **Safety components**

Model(s): **KL 2904, EL 2904**

Parameters:

Supply voltage:	24VDC (-15%/+20%)
Power dissipation:	2W
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.: BV82168

Valid until: 2023-01-25

737039

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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Figure 39 - EL2904 EC Type Examination Certificate

BECKHOFF New Automation Technology

Originalerklärung
Original declaration

EG-Konformitätserklärung

EC Declaration of Conformity

Nummer: 2013019EL2904-1, 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 EL2904** 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 61000-6-2:2011	**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 019, 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

Figure 40 - EL2904 EC Declaration of Conformity

CERTIFICATE OF COMPLIANCE

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

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	EK1960

Bruce Mahrenholz, Director North American Certification Program

UL LLC

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Figure 41 – EL2904 UL-EL 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: **7**

(4) Product: **Fieldbus Components Type BK ..., Type BC ..., Type KL ..., Type KS ..., Type EK ..., 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 7.

(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: 8 June 2018

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-certification.com Registered Arnhem 09085396

Figure 42 - ATEX Certificate

3.6 EL6900

ZERTIFIKAT ◆ CERTIFICATE ◆ 認証証書 ◆ 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 Greil)

719938

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A1 / 04.11

Figure 43 - KL6904, EL6900, EL6930 Z10-Certificate

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

TÜV SÜD America

CERTIFICATE

No. U8 10 07 62386 006

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

Production Facility(ies): 62386

Certification Mark:

Product: **Controller (Industrial Control Equipment)**

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

Parameters:

Supply voltage:	24 VDC
Power dissipation:	540mW (EL1904) 2 W (EL2904; EL6900)

Tested according to:
UL 508:2008
CAN CSA C22.2 No. 142-M1987:2004
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. This product certification system operated by TÜV SÜD America Inc. most closely resembles that described by ISO/IEC Guide 67, Conformity assessment - Fundamentals of product certification, System 3. See also notes overleaf.

Test report no.: 028-71369861-000

Date, 2010-07-02

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UCB / 01.08

Figure 44 - EL1904, EL2904, EL6900 U8-Certificate

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

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)

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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Figure 45 - KL6904, EL6900, EL6930, EL6910, EJ6910 EC Type Examination Certificate

BECKHOFF New Automation Technology

Originalerklärung
Original declaration

EG-Konformitätserklärung

EC Declaration of Conformity

Nummer: 2017043EL6900-2, 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 EL6900** TwinSAFE Logic *TwinSAFE logic*

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

Figure 46 - EL6900 EC Declaration of Conformity

CERTIFICATE OF COMPLIANCE

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

with digital inputs and digital outputs	

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, EL6861
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

Bruce Mahrenholz, Director North American Certification Program

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Figure 47 – EL6900 UL-EL Page 3

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: **7**

(4) Product: **Fieldbus Components Type BK ..., Type BC ..., Type KL ..., Type KS ..., Type EK ..., 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 7.

(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: 8 June 2018

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-certification.com Registered Arnhem 09085396

Figure 48 - ATEX Certificate

3.7 EL6930

ZERTIFIKAT ◆ CERTIFICATE ◆ 認証証書 ◆ 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 Greil)

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Figure 49 - KL6904, EL6900, EL6930 Z10-Certificate

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

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)

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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Figure 50 - KL6904, EL6900, EL6930, EL6910, EJ6910 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

Figure 51 - EL6930 EC Declaration of Conformity

CERTIFICATE OF COMPLIANCE

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

with digital inputs and digital outputs	

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, EL6861
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

Bruce Mahrenholz, Director North American Certification Program

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Figure 52 – EL6930 UL-EL Page 3

3.8 EL6910

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

Product Service

CERTIFICATE

No. Z10 16 11 62386 034

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

Factory(ies): 62386

Certification Mark:

Product: **Safety components**

Model(s): **EJ6910, EL6910**

Parameters:

Supply voltage:	24VDC (-15%/+20%)
Temperature range	-5°C ... +55°C
Protection Class:	IP20

Tested according to:
EN 61508-1:2010 (SIL1-3)
EN 61508-2:2010 (SIL1-3)
EN 61508-3:2010 (SIL1-3)
EN 61508-4:2010 (SIL1-3)
EN ISO 13849-1:2015 (up to Cat 4, PL e)
EN 61326-3-1:2008
EN 62061:2005/A2:2015

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.: BV88453T

Valid until: 2021-12-14

Date, 2016-12-15

(Christian Dirmeier)

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Figure 53 - EL6910, EJ6910 Z10-Certificate

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

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)

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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Figure 54 - KL6904, EL6900, EL6930, EL6910, EJ6910 EC Type Examination Certificate

BECKHOFF New Automation Technology

Originalerklärung
Original declaration

EG-Konformitätserklärung

EC Declaration of Conformity

Nummer: 2017043EL6910-1, 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 EL6910** TwinSAFE Logic *TwinSAFE logic*

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

Figure 55 - EL6910 EC Declaration of Conformity

CERTIFICATE OF COMPLIANCE

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

with digital inputs and digital outputs	

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, EL6861
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

Bruce Mahrenholz, Director North American Certification Program

UL LLC

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Figure 56 – EL6910 UL-EL Page 3

3.9 EL1918

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

TÜV SÜD Product Service

CERTIFICATE

Z10 062386 0054 Rev. 01

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

Factory(ies): 062386

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 62061:2005/A2:2015 (SIL CL3)
EN 81-20:2014
EN 81-22:2014
EN 81-50:2014
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.: BV92378T

Valid until: 2023-08-08

Date, 2018-08-09 (Peter Weiß)

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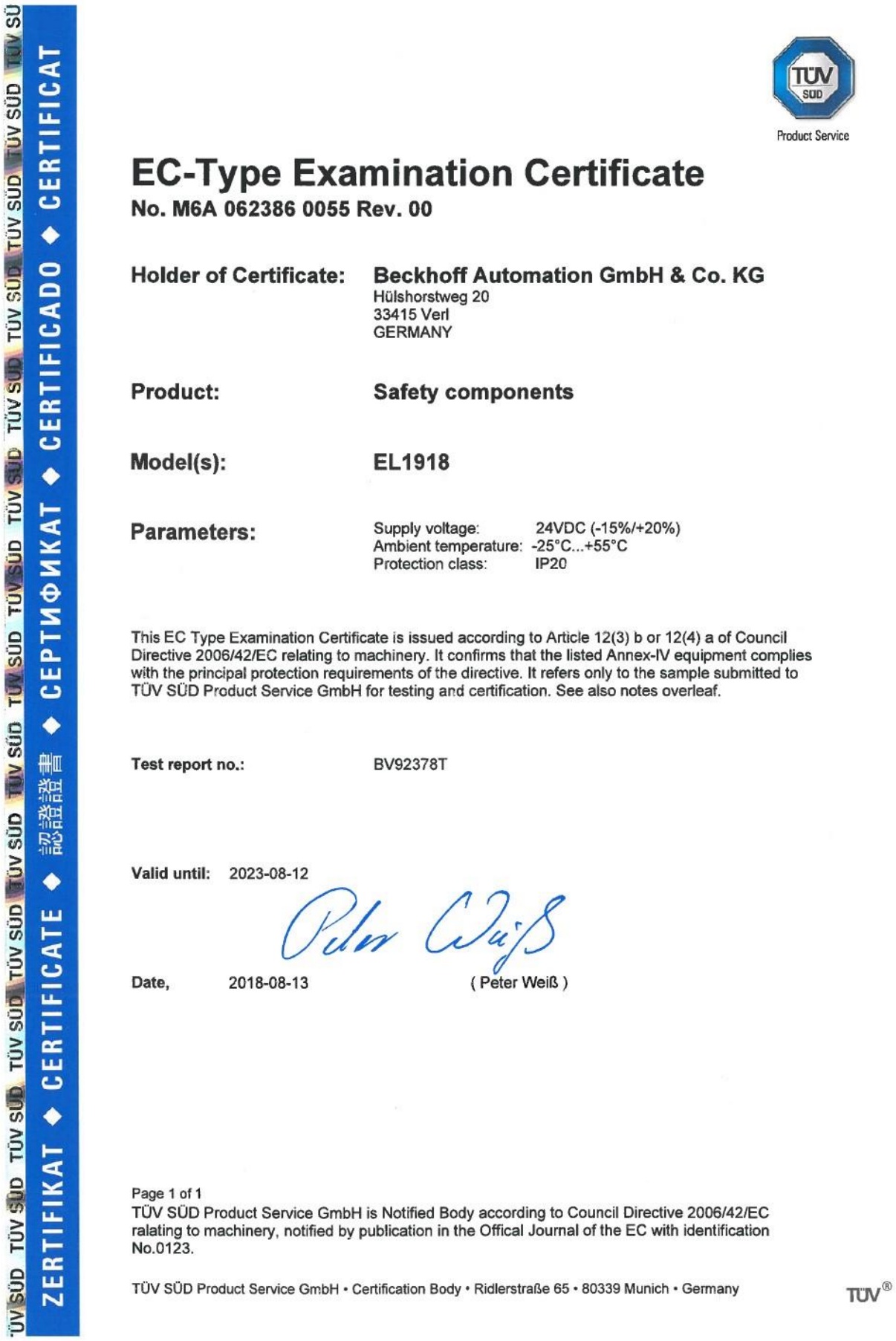
Figure 57 - EL1918 Z10 Certificate



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

TÜV SÜD Product Service

EC-Type Examination Certificate

No. M6A 062386 0055 Rev. 00

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. See also notes overleaf.

Test report no.: BV92378T

Valid until: 2023-08-12

Date, 2018-08-13 (Peter Weiß)

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Figure 58 - M6A Certificate EL1918

BECKHOFF New Automation Technology

Originalerklärung
Original declaration

EG-Konformitätserklärung

EC Declaration of Conformity

Nummer: 20180055EL1918-1, Datum: 13.08.2018
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*

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*
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 61000-6-2:2006	**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-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 62386 0055 Rev. 00, 2018-08-13**

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, 20.08.2018

Dipl.-Phys. Hans Beckhoff

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

Figure 59 - 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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Figure 60 – EL1918 UL certificate

3.10 EL2911

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

Product Service

CERTIFICATE

No. Z10 062386 0056 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): **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 62061:2005/A2:2015 (SIL CL3)
EN 81-20:2014
EN 81-22:2014
EN 81-50:2014
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.: BV92381T

Valid until: 2023-08-15

Date, 2018-08-16 (Peter Weiß)

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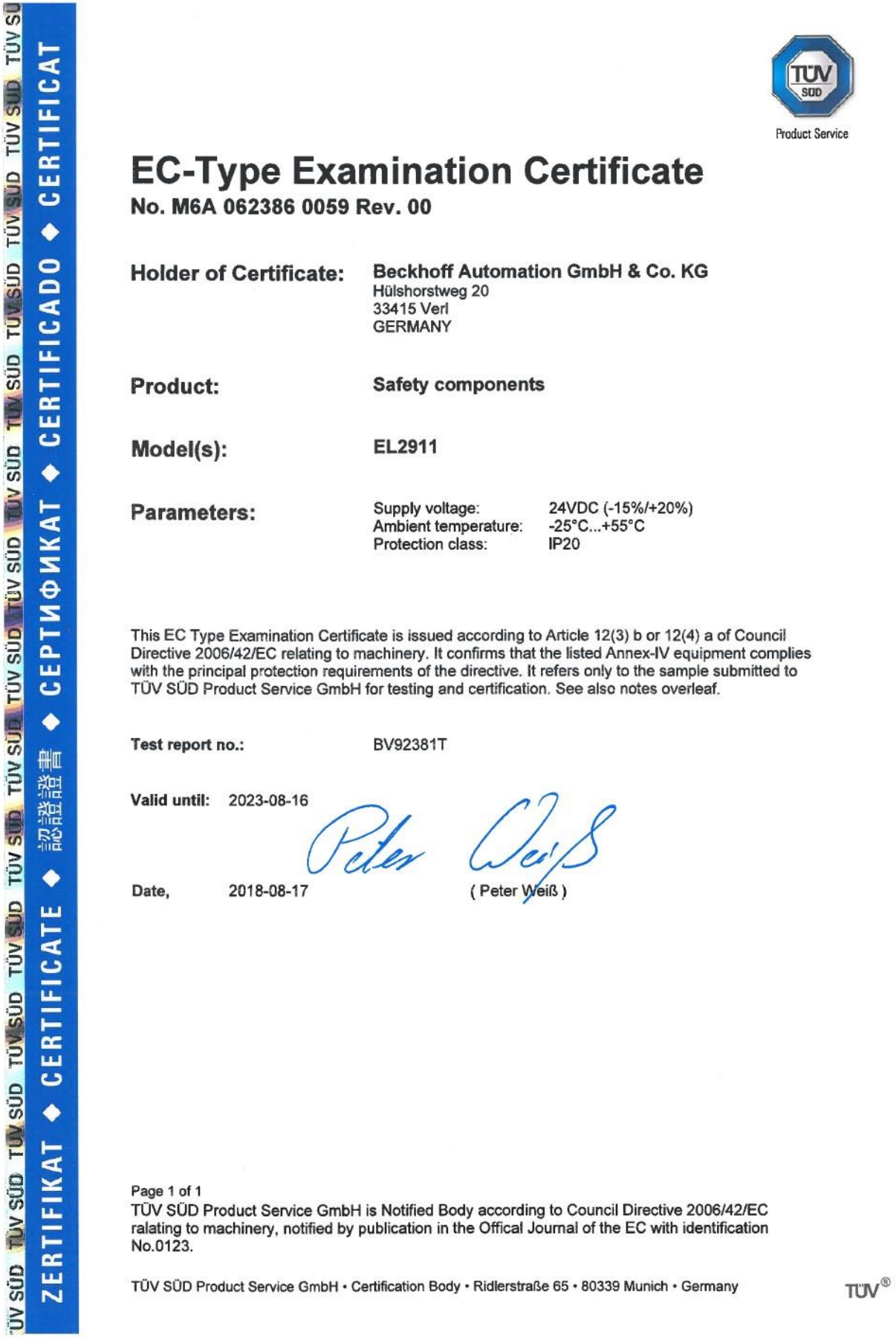
Figure 61 - Z10 Certificate EL2911



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

TÜV SÜD Product Service

EC-Type Examination Certificate

No. M6A 062386 0059 Rev. 00

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. See also notes overleaf.

Test report no.: BV92381T

Valid until: 2023-08-16

Date, 2018-08-17 (Peter Weiß)

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Figure 62 - M6A Certificate EL2911

BECKHOFF New Automation Technology

Originalerklärung
Original declaration

EG-Konformitätserklärung

EC Declaration of Conformity

Nummer: 20180059EL2911-1, Datum: 17.08.2018
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*

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*
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 61000-6-2:2006	**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-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 62386 0059 Rev. 00, 2018-08-17**

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, 20.08.2018

Dipl.-Phys. Hans Beckhoff

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

Figure 63 - 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

UL LLC

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Figure 64 – EL2911 UL certificate

3.11 EL2912

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

Product Service

CERTIFICATE

No. Z10 062386 0062 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): **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 62061:2005/A2:2015 (SIL CL3)
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.: BV93924T

Valid until: 2024-07-25

Date, 2019-07-26 (Peter Weiß)

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Figure 65 – EL2912 Z10 certificate

Product Service

EC-Type Examination Certificate

No. M6A 062386 0063 Rev. 00

Holder of Certificate:	**Beckhoff Automation GmbH & Co. KG** Hülshorstweg 20 33415 Verl GERMANY	
Product:	**Safety components**	
Model(s):	**EL2912**	
Parameters:	Supply voltage: Ambient temperature: Protection class:	24VDC (-15%/+20%) -25°C...+55°C 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. See also notes overleaf.

Test report no.: BV93924T

Valid until: 2024-07-25

Date, 2019-07-26 (Peter Weiß)

Page 1 of 1

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Figure 66 – EL2912 M6A certificate

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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Figure 67 – EL2912 UL certificate

BECKHOFF New Automation Technology

Originalerklärung
Original declaration

EG-Konformitätserklärung

EC Declaration of Conformity

Nummer: 20200063EL2912-1, Datum: 07.10.2020
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*

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 61000-6-2:2005	**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-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 62386 0063 Rev. 00, 2019-07-26**

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, 07.10.2020

Dipl.-Phys. Hans Beckhoff — **Geschäftsführer Beckhoff Automation GmbH & Co. KG**
CEO Beckhoff Automation GmbH & Co. KG

Figure 68 – EL2912 EC Declaration of Conformity

3.12 EP1908

ZERTIFIKAT ◆ CERTIFICATE ◆ 認証証書 ◆ 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

Page 1 of 1

A1 / 04.11

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

Figure 69 - EP1908 Z10-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)

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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Figure 70 - EP1908 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

Figure 71 - EP1908 EC Declaration of Conformity

CERTIFICATE OF COMPLIANCE

Certificate Number	20171127-E172151
Report Reference	E172151-20101216
Issue Date	2017-NOVEMBER-27
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 for models
	Have been investigated by UL in accordance with the Standard(s) indicated on this Certificate.
Standard(s) for Safety:	UL 508 and CAN/CSA C22.2 No. 142-M1987 Standard for Industrial 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

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/

Page 1 of 2

Figure 72 - UL-EP Page 1

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

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/

Page 2 of 2

Figure 73 - UL-EP Page 2

3.13 EP1918

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

Product Service

CERTIFICATE

No. Z10 062386 0075 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): **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 62061:2005/A2:2015 (SIL CL3)
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.: BV95177T

Valid until: 2025-05-18

Date, 2020-05-19 (Christian Dirmeier)

A4 / 07.17

Page 1 of 1
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Figure 74 - Z10 Certificate EP1918

America

CERTIFICATE

No. U8V 062386 0071 Rev. 00

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

Certification Mark:

C US

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)

A4 / 07.17

Page 1 of 2
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Figure 75 - EP1918 U8V Certificate Page 1

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.

A4 / U7 17

Page 2 of 2
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Figure 76 – EP1918 U8V Certificate Page 2

BECKHOFF New Automation Technology

Originalerklärung
Original declaration

EG-Konformitätserklärung

EC Declaration of Conformity

Nummer: 20200076EP1918-1, Datum: 07.10.2020
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*

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 61000-6-2:2005	**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-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 62386 0076 Rev. 00, 2020-05-20**

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, 07.10.2020

Dipl.-Phys. Hans Beckhoff

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

Figure 77 – 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

Figure 78 - UL EP1918

3.14 EP1957

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

TÜV SÜD Product Service

CERTIFICATE

No. Z10 062386 0057 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): **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 62061:2005/A2:2015 (SIL CL3)
EN 81-20:2014
EN 81-22:2014
EN 81-50:2014
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.: BV92792T

Valid until: 2023-08-15

Date, 2018-08-16 (Peter Weiß)

Page 1 of 1
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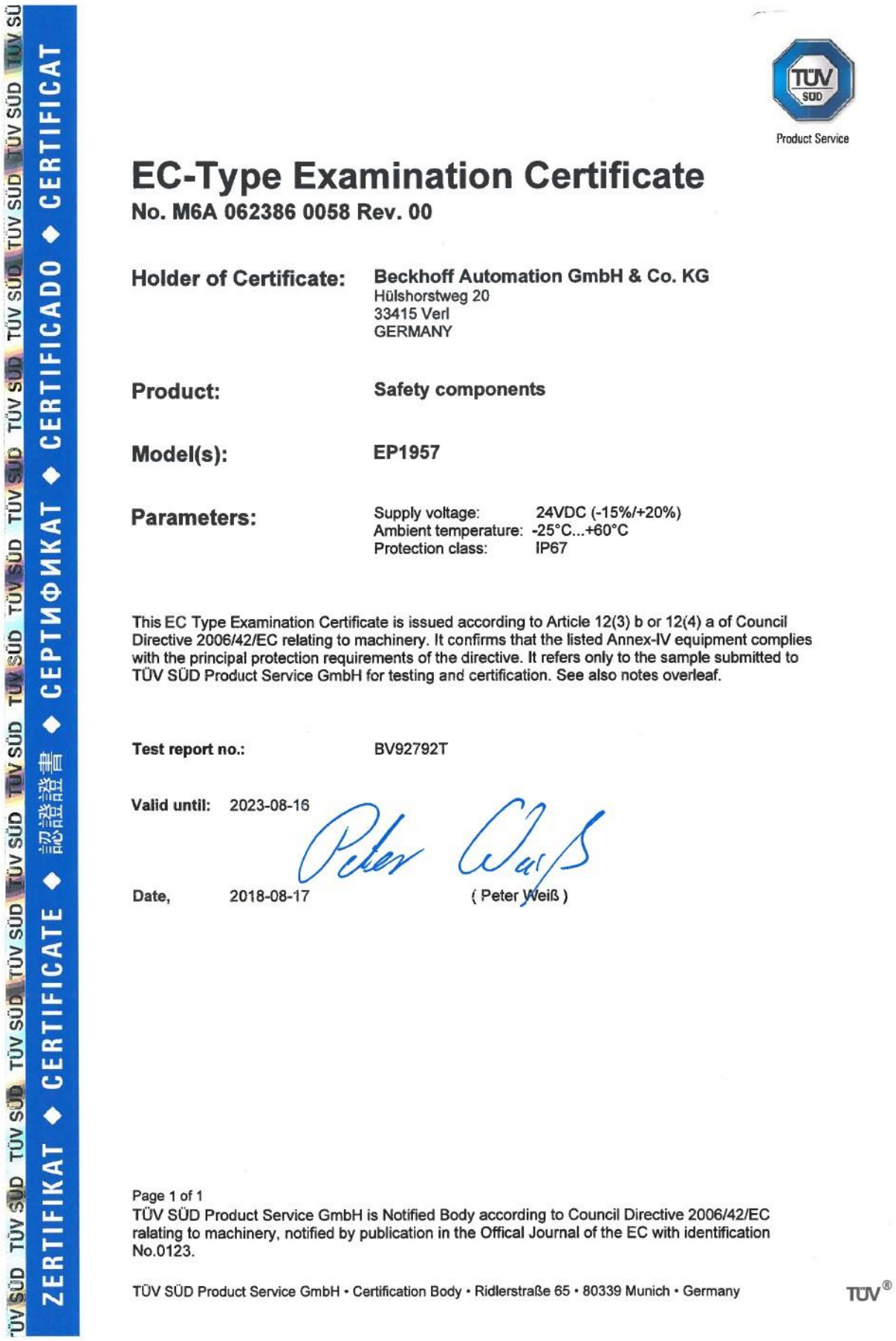
Figure 79 - Z10 Certificate EP1957



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

TÜV SÜD Product Service

EC-Type Examination Certificate

No. M6A 062386 0058 Rev. 00

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. See also notes overleaf.

Test report no.: BV92792T

Valid until: 2023-08-16

Date, 2018-08-17 (Peter Weiß)

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

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Figure 80 - M6A Certificate EP1957

BECKHOFF New Automation Technology

Originalerklärung
Original declaration

EG-Konformitätserklärung

EC Declaration of Conformity

Nummer: 20180058EP1957-1, Datum: 17.08.2018
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*

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*
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 61000-6-2:2006	**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-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 62386 0058 Rev. 00, 2018-08-17**

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, 20.08.2018

Dipl.-Phys. Hans Beckhoff

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

Figure 81 - EP1957 EC Declaration of Conformity

CERTIFICATE OF COMPLIANCE

Certificate Number	20171127-E172151
Report Reference	E172151-20101216
Issue Date	2017-NOVEMBER-27
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 for models
	Have been investigated by UL in accordance with the Standard(s) indicated on this Certificate.
Standard(s) for Safety:	UL 508 and CAN/CSA C22.2 No. 142-M1987 Standard for Industrial 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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Figure 82 - UL-EP Page 1

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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Figure 83 - UL-EP Page 2

3.15 EP2918

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

Product Service

CERTIFICATE

No. Z10 062386 0067 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): **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 62061:2005/A2:2015 (SIL CL3)
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.: BV94567T

Valid until: 2024-11-11

Date, 2019-11-12 (Peter Weiß)

Page 1 of 1
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Figure 84 - EP2918 Z10-Certificate

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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Figure 85 - EP2918 U8V- Certificate page 1

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.

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Figure 86 - EP2918 U8V- Certificate page 2

Product Service

EC-Type Examination Certificate

No. M6A 062386 0068 Rev. 00

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. See also notes overleaf.

Test report no.: BV94567T

Valid until: 2024-11-11

Date, 2019-11-12 (Peter Weiß)

Page 1 of 1
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Figure 87 - EP2918 M6A-Certificate

BECKHOFF New Automation Technology

Originalerklärung
Original declaration

EG-Konformitätserklärung

EC Declaration of Conformity

Nummer: 20200068EP2918-1, Datum: 07.10.2020
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*

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 61000-6-2:2005	**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-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 62386 0068 Rev. 00, 2019-11-12**

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, 07.10.2020

Dipl.-Phys. Hans Beckhoff

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

Figure 88 – EP2918 EC Declaration of Coformity

3.16 EK1914

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

Product Service

CERTIFICATE

No. Z10 17 10 62386 045

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

Factory(ies): 62386

Certification Mark:

Product: **Safety components**

Model(s): **EK 1914**

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)
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.: BV85712T

Valid until: 2022-10-19

Date, 2017-10-20 (Günter Greil)

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A1 / 04.11

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Figure 89 - EK1914 Z10-Certificate

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

Product Service

EC-Type Examination Certificate

No. M6A 17 07 62386 040

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

Product: **Safety components**

Model(s): **EK 1914**

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. See also notes overleaf.

Test report no.: BV85712T

Valid until: 2022-07-27

719890

Date, 2017-07-28 (Günter Greil)

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A1 / 04.11

Figure 90 - 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

Figure 91 - EK1914 EC Declaration of Conformity

CERTIFICATE OF COMPLIANCE

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

EMC shield terminal	EL9070
End Module	EL9010, EL9080
Measurement Module	EL3403, ES3403

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

Bruce Mahrenholz, Director North American Certification Program

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Figure 92 – EK1914 UL-EL Page 4

3.17 EK1960

ZERTIFIKAT ◆ CERTIFICATE ◆ 認証証書 ◆ 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

Date, 2017-04-21 (Christian Dirmeier)

719811

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A1 / 04.11

Figure 93 - EK1960 Z10-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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Figure 94 - EK1960 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

Figure 95 - EK1960 EC Declaration of Conformity

CERTIFICATE OF COMPLIANCE

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

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	EK1960

Bruce Mahrenholz, Director North American Certification Program

UL LLC

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Figure 96 – EK1960 UL-EL 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: ᴿᵁᴸ, 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

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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Figure 97 - UR EK1960 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

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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Figure 98 - UR EK1960 Page 2

3.18 EJ6910

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

Product Service

CERTIFICATE

No. Z10 16 11 62386 034

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

Factory(ies): 62386

Certification Mark:

Product: **Safety components**

Model(s): **EJ6910, EL6910**

Parameters:

Supply voltage:	24VDC (-15%/+20%)
Temperature range	-5°C ... +55°C
Protection Class:	IP20

Tested according to:
EN 61508-1:2010 (SIL1-3)
EN 61508-2:2010 (SIL1-3)
EN 61508-3:2010 (SIL1-3)
EN 61508-4:2010 (SIL1-3)
EN ISO 13849-1:2015 (up to Cat 4, PL e)
EN 61326-3-1:2008
EN 62061:2005/A2:2015

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.: BV88453T

Valid until: 2021-12-14

Date, 2016-12-15

(Christian Dirmeier)

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Figure 99 - EL6910, EJ6910 Z10-Certificate

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

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)

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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Figure 100 - KL6904, EL6900, EL6930, EL6910, EJ6910 EC Type Examination Certificate

BECKHOFF New Automation Technology

Originalerklärung
Original declaration

EG-Konformitätserklärung

EC Declaration of Conformity

Nummer: 2017043EJ6910-1, Datum: 17.01.2018
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*

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, 17.01.2018

Dipl.-Phys. Hans Beckhoff

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

Figure 101 - EJ6910 EC Declaration of Conformity

NRAQ2.E172151
Programmable Controllers - Component

If you notice a change to your NRAQ2 Listing Card, click here to learn more.

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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

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

Figure 102 - EJ US

NRAQ8.E172151
Programmable Controllers Certified for Canada - Component

If you notice a change to your NRAQ8 Listing Card, click here to learn more.

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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

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

Figure 103 - EJ C

3.19 EJ1914, EJ1918, EJ1957, EJ2914, EJ2918

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

Product Service

CERTIFICATE

No. Z10 17 04 62386 037

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

Factory(ies): 62386

Certification Mark:

Product: **Safety components**
EtherCAT Plugin Module

Model(s): **EJx9xx**
For nomenclature see attachment

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.: BV90900T

Valid until: 2022-04-18

Date, 2017-04-19 (Jürgen Blum)

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Figure 104 - EJx9xx Z10-Certificate

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

Product Service

EC-Type Examination Certificate

No. M6A 17 07 62386 042

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

Product: **Safety components**
EtherCAT Plugin Module

Model(s): **EJx9xx**
For nomenclature see attachment

Parameters:

Supply voltage:	24VDC (-15%...+20%)
Protection class:	IP20
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.: BV90900T

Valid until: 2022-07-27

Date, 2017-07-28 (Peter Weiss)

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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Figure 105 - EJx9xx EC Type Examination Certificate

BECKHOFF New Automation Technology

Originalerklärung
Original declaration

EG-Konformitätserklärung

EC Declaration of Conformity

Nummer: 2017042EJx9xx-1, Datum: 02.08.2017
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 in and 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*
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-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 042, 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, 02.08.2017

Dipl.-Phys. Hans Beckhoff

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

Figure 106 - EJx9xx EC Declaration of Conformity

NRAQ2.E172151
Programmable Controllers - Component

If you notice a change to your NRAQ2 Listing Card, click here to learn more.

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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

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

Figure 107 - EJ US

ONLINE CERTIFICATIONS DIRECTORY

NRAQ8.E172151
Programmable Controllers Certified for Canada - Component

If you notice a change to your NRAQ8 Listing Card, click here to learn more.

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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

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

Figure 108 - EJ C

3.20 AX5801

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

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

TÜV®

Figure 109 - AX5801 Z10-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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Figure 110 - AX-Servo drives EC Declaration of Conformity 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*

Figure 111 - AX Servo drives EC Declaration of Conformity 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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Figure 112 - UL AX5xxx 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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Figure 113 - UL AX5xxx Page 2

3.21 AX5805, AX5806

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

Product Service

CERTIFICATE

No. Z10 18 03 62386 050

Holder of Certificate:	**Beckhoff Automation GmbH & Co. KG** Hülshorstweg 20 33415 Verl GERMANY
Factory(ies):	62386
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 PL e, CAT 4 (EN ISO 13849) SIL 3 (EN 61508) SILCL 3 (EN 62061)
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 61508-4:2010 (SIL 3) EN 62061:2005/A2:2015 (SILCL 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. See also notes overleaf.

Test report no.: BV83877T

Valid until: 2023-03-26

Date, 2018-03-27 (Guido Neumann)

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TÜV®

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Figure 114 - AX5805, AX5806 Z10-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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Figure 115 - AX-Servo drives EC Declaration of Conformity 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*

Figure 116 - AX-Servo drives EC Declaration of Conformity 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

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Figure 117 - UL AX5xxx 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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Figure 118 - UL AX5xxx 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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Figure 119 - UL AX5160 AX5172 Page 1

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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Figure 120 - UL AX519x Page 1

3.22 AX8xxx-x1xx / AX8xxx-x2xx

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

Product Service

CERTIFICATE

No. Z10 062386 0064 Rev. 01

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. See also notes overleaf.

Test report no.: BV91210T

Valid until: 2025-07-06

Date, 2020-07-07 (Christian Dirmeier)

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Figure 121 - AX8xxx-x1xx Z10-Certificate Page 1

TÜV SÜD Product Service

CERTIFICATE

No. Z10 062386 0064 Rev. 01

Parameters:

Supply voltage: 24VDC (-10%/+10%)
Ambient temperature: 0°C ... +55°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 62061:2005 (SIL CL3)
IEC 62061:2005/AMD1:2012
IEC 62061:2005/AMD2:2015
EN ISO 13849-1:2015 (up to Cat.4 PL e)
IEC 61800-5-2:2016

Factory(ies): 062386

Model(s): **AX 8 x y z - a b c d**

AX 8 x y z - a b c d			
AX	Product line	AX	Servo drives
8	Series	8	AX8000
x	Number of channels	1	1-channel servo axis
		2	2-channel servo axis
yz	Rated current	08	1 x 8A
		18	1 x 18A
		06	2 x 6A
a	DC-Link voltage	0	0 - 875 VDC
b	**Safety function**	**0**	**no safety function**
		1	**STO, SS1**
		2	**SS2, SOS, SLS, SLI, SLP, SLA, SDI, SBC, SBT, SSM, SSR, SMS, SMA, SCA**
c	Hardware feature	0	OCT - feedback system (OCT Safety)
		1	Multi feedback (EnDat 2.2 Safety)
d	Model type	0	standard

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Figure 122 - AX8xxx-x1xx Z10-Certificate Page 2

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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Figure 123 - AX-Servo drives EC Declaration of Conformity 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*

Figure 124 - AX-Servo drives EC Declaration of Conformity 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

UL LLC

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Page 1 of 2

Figure 125 - UL AX8xxx 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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Figure 126 - UL AX8xxx Page 2

3.23 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 Sicherheitssteuerung vom Typ EL69xx bzw. EK19x0 bzw. EJ6910 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 an EL69xx or an EK19x0 or an EJ6910 Hardware.

Version / Version

TwinSAFE Loader Version v7:

- 64-Bit Linux (TwinSAFE_Loader.bin):
  SHA256: b184816a9a17caeb1d7baca2395d30207cac463b63638930de0dc4f20539bedf
- 32-Bit Linux (TwinSAFE_Loader-i386.bin):
  SHA256: 3af9a3a22fffa7a399c9aa5c1763ba588bc2680beb8d3cadfd165739f4dca099
- Win32 (TwinSAFE_Loader.exe):
  SHA256: e8287a0c23229cedb821e3a5b56459101ca45aabadaa185e4313bd7ad3a92d47

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
16. Juli 2019

Digital unterschrieben von Guido Neumann
Datum: 2019.07.16 13:55:07 +02'00'

G. Neumann

Digital unterschrieben von Franz Seika
Datum: 2019.07.16 11:27:29 +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 created on basis of a TÜV internal Review Report. It includes the result of a previous examination of the product submitted for examination.

Figure 127 - TwinSAFE Loader Letter of Confirmation

3.24 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.

Figure 128 - TwinSAFE User Letter of Confirmation

3.25 TwinCAT Safety PLC

ZERTIFIKAT ◆ CERTIFICATE ◆ 認証証書 ◆ 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)

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

TÜV®

Figure 129 - TwinCAT Safety PLC Z10-Certificate

3.26 Application Guide

KONFORMITÄTSBESTÄTIGUNG
LETTER OF CONFIRMATION

BV89987T

Rail

Applikationshandbuch TwinSAFE
(Application guide TwinSAFE)

Hersteller: Manufacturer:	**Prüfstelle:** Test body:
Beckhoff Automation GmbH & Co. KG	TÜV SÜD RAIL GmbH Rail Automation
Huelshorstweg 20 D-33415 Verl	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 1.9.0 Application guide TwinSAFE version 1.9.0

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
2017-10-23

Digital unterschrieben von Guido Neumann
Datum: 2017.10.23 17:20:19 +02'00'

G. Neumann
Technical Certifier

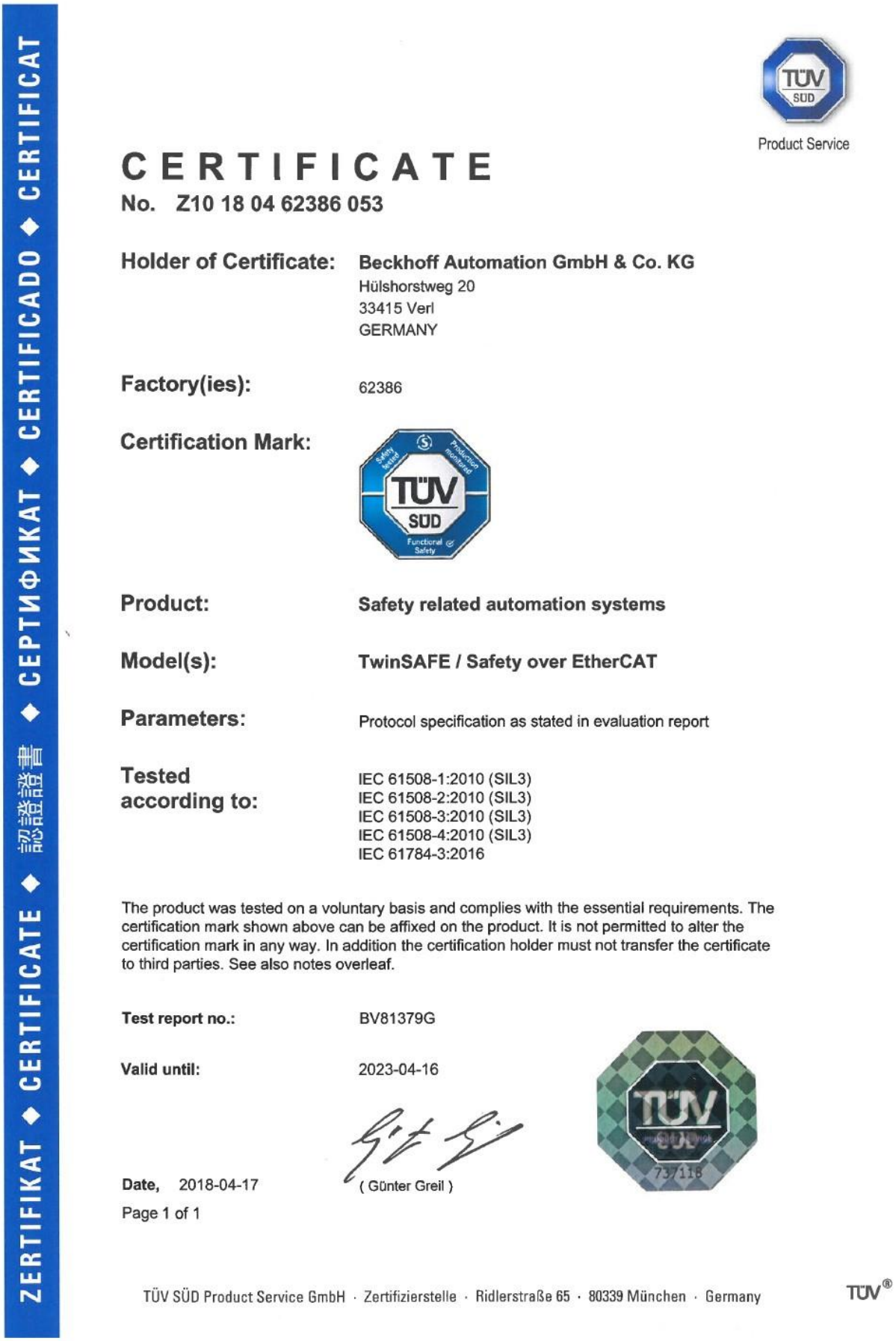
T. Kreten
Project Leader

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.

Figure 130 - Application Guide Letter of Confirmation

3.27 Safety-over-EtherCAT (FSoE)



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

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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Figure 131 - Safety-over-EtherCAT Z10-Certificate

4 Support and Service

Beckhoff and their partners around the world offer comprehensive support and service, making available fast and competent assistance with all questions related to Beckhoff products and system solutions.

Beckhoff's branch offices and representatives

Please contact your Beckhoff branch office or representative for local support and service on Beckhoff products! The addresses of Beckhoff's branch offices and representatives round the world can be found on her internet pages:
http://www.beckhoff.com

You will also find further documentation for Beckhoff components there.

Beckhoff Headquarters

Beckhoff Automation GmbH & Co. KG
Huelshorstweg 20
33415 Verl
GERMANY

phone:	+49(0)5246/963-0
fax:	+49(0)5246/963-198
e-mail:	info@beckhoff.com

Beckhoff Support

Support offers you comprehensive technical assistance, helping you not only with the application of individual Beckhoff products, but also with other, wide-ranging services:

- support
- design, programming and commissioning of complex automation systems
- and extensive training program for Beckhoff system components

hotline:	+49(0)5246/963-157
fax:	+49(0)5246/963-9157
e-mail:	support@beckhoff.com

Beckhoff Service

The Beckhoff Service Center supports you in all matters of after-sales service:

- on-site service
- repair service
- spare parts service
- hotline service

hotline:	+49(0)5246/963-460
fax:	+49(0)5246/963-479
e-mail:	service@beckhoff.com

5 List of figures