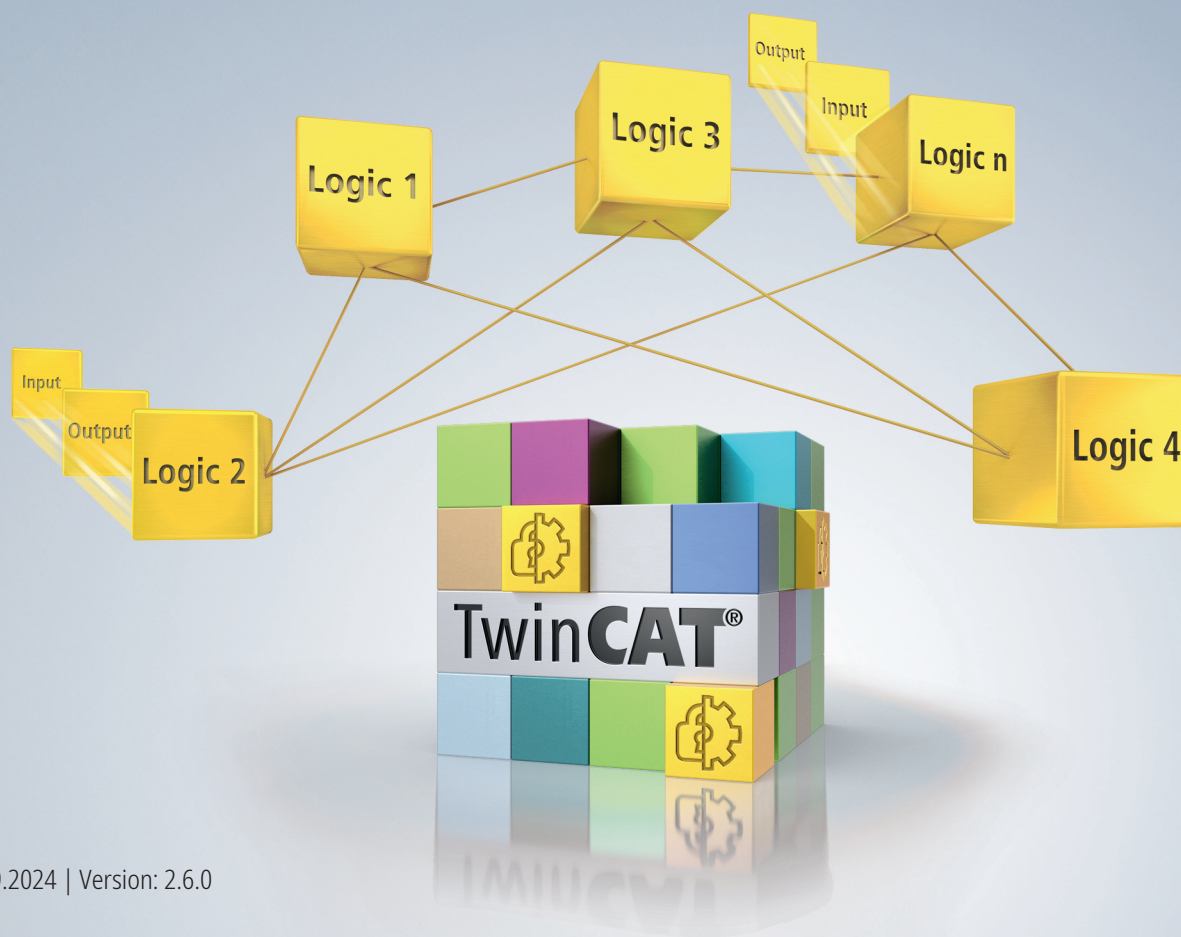


Handbuch | DE

TwinSAFE-Zertifizierungen

Übersicht und Erläuterung



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1 Dokumentationshinweise

1.1 Disclaimer

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Wir definieren in dieser Betriebsanleitung alle zulässigen Anwendungsfälle, deren Eigenschaften und Betriebsbedingungen wir zusichern können. Die von uns definierten Anwendungsfälle sind vollumfänglich geprüft und zertifiziert. Darüberhinausgehende Anwendungsfälle, die nicht in dieser Betriebsanleitung beschrieben werden, bedürfen eine Prüfung der Firma Beckhoff Automation GmbH & Co. KG.

1.1.1 Marken

Beckhoff®, TwinCAT®, TwinCAT/BSD®, TC/BSD®, EtherCAT®, EtherCAT G®, EtherCAT G10®, EtherCAT P®, Safety over EtherCAT®, TwinSAFE®, XFC®, XTS® und XPlanar® sind eingetragene und lizenzierte Marken der Beckhoff Automation GmbH.

Die Verwendung anderer Marken oder Kennzeichen durch Dritte kann zu einer Verletzung von Rechten der Inhaber der entsprechenden Bezeichnungen führen.

1.1.2 Patente

Die EtherCAT-Technologie ist patentrechtlich durch folgende Anmeldungen und Patente mit den entsprechenden Anmeldungen und Eintragungen in verschiedenen anderen Ländern geschützt:

- EP1590927
- EP1789857
- EP1456722
- EP2137893
- DE102015105702



EtherCAT® ist eine eingetragene Marke und patentierte Technologie, lizenziert durch die Beckhoff Automation GmbH.



Safety over EtherCAT® ist eine eingetragene Marke und patentierte Technologie, lizenziert durch die Beckhoff Automation GmbH.

1.1.3 Copyright

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Zuwendungen verpflichten zu Schadenersatz. Alle Rechte für den Fall der Patent-, Gebrauchsmuster- oder Geschmacksmustereintragung vorbehalten.

1.2 Ausgabestände

Version	Kommentar
2.6.0	<ul style="list-style-type: none"> • UKCA-Kennzeichen hinzugefügt • Kapitel „TwinSAFE-Produkte“ aktualisiert • EJx9xx, EL1904, KL1904, KL6904, EL2904, KL2904, AX5801 und AX5805, AX5806: M6A-Baumusterprüfbescheinigung und/oder EG-Konformitätserklärung aktualisiert • TwinSAFE-Karte ELM8911 hinzugefügt • Kapitel „AX8911“ umbenannt
2.5.0	<ul style="list-style-type: none"> • Glossar überarbeitet • Benennung der TwinSAFE-Karten angepasst • KL1904 EG-Konformitätserklärung korrigiert • EL6900 Z10-Zertifikat, M6A-Baumusterprüfbescheinigung und EG-Konformitätserklärung aktualisiert
2.4.0	<ul style="list-style-type: none"> • Z10-Zertifikat, M6A-Baumusterprüfbescheinigung und EG-Konformitätserklärung der folgenden Produkte aktualisiert: EL1918, EL2911, EL2912, EL6910, EJ6910, EP1918, EP1957, EP2918 • EJx9xx M6A-Baumusterprüfbescheinigung und EG-Konformitätserklärung aktualisiert • AX8-Serie Z10-Zertifikat und M6A-Baumusterprüfbescheinigung aktualisiert • Kapitel „Beckhoff Support und Service“ aktualisiert
2.3.0	<ul style="list-style-type: none"> • EJx9xx UL-Zertifikat aktualisiert • TwinSAFE Loader EG-Konformitätserklärung aktualisiert
2.2.0	<ul style="list-style-type: none"> • AMI8911 Z10-Zertifikat und M6A-Baumusterprüfbescheinigung hinzugefügt • AMI8911 in der Produktübersicht ergänzt • AMP8000 (AMP8911) Z10- und M6A-Baumusterprüfbescheinigung hinzugefügt • AMP8000 (AMP8911) in der Produktübersicht ergänzt • EL1918 und EL2912 EU-ESD-Baumusterprüfbescheinigungen hinzugefügt • EL1918 und EL2912 EG-Konformitätserklärungen aktualisiert • Kapitel „Beckhoff Support und Service“ aktualisiert • Link auf der Rückseite angepasst
2.1.0	<ul style="list-style-type: none"> • Den Ausgabestand der Version vom 21.06.2021 von 1.11.0 auf 2.0.0 geändert • In der Zertifikatsübersicht für EJx9xx und gehäuselose Varianten eine extra Zeile hinzugefügt • Z10-Zertifikat für EJx9xx und gehäuselose Varianten aktualisiert
2.0.0	<ul style="list-style-type: none"> • Redaktionell überarbeitet • Marken aktualisiert • Produktübersicht-Tabelle mit Zertifikatsnummern ergänzt • EL1904, EL2904, EL6910 EU-ESD EU-Baumusterprüfbescheinigungen ergänzt • EL1904, EL2904, EL6910 EG-Konformitätserklärungen aktualisiert • EL1904, EL2904, EL6900 U8V NRTL-Zertifikate aktualisiert • AX8xxx M6A-Baumusterprüfbescheinigung ergänzt • Applikationshandbuch Konformitätsbestätigung aktualisiert • EP1918 M6A Zertifikat hinzugefügt • EP1918 Zertifikate in Zertifikatsübersicht ergänzt
1.10.0	<ul style="list-style-type: none"> • EP1918 UL Zertifikat aktualisiert
1.9.0	<ul style="list-style-type: none"> • AX8xxx-x1xx/AX8xxx-x2xx Zertifikat aktualisiert
1.8.0	<ul style="list-style-type: none"> • EL2912 EG-Konformitätserklärung hinzugefügt • EP2918 EG-Konformitätserklärung hinzugefügt

Version	Kommentar
	<ul style="list-style-type: none"> • EP1918 EG-Konformitätserklärung hinzugefügt
1.7.0	<ul style="list-style-type: none"> • EP1918 Zertifikate hinzugefügt
1.6.0	<ul style="list-style-type: none"> • AX8xxx-x1xx/AX8xxx-x2xx Zertifikat aktualisiert • AX5801 Zertifikat aktualisiert
1.5.0	<ul style="list-style-type: none"> • EP2918 Zertifikate hinzugefügt
1.4.0	<ul style="list-style-type: none"> • UL Zertifikate aktualisiert • EL1904 / EL2904 Zertifikate aktualisiert • EL/EJ7211-9x14 aus Liste entfernt • TwinSAFE Loader / TwinSAFE User aktualisiert • EL2912 Zertifikate hinzugefügt
1.3.1	<ul style="list-style-type: none"> • Aktualisierung des AX5805/AX5806 Zertifikates
1.3.0	<ul style="list-style-type: none"> • UR Hinweis zur EP1957 hinzugefügt • UL Zertifizierung EL1918, EL2911, EL2912 hinzugefügt
1.2.0	<ul style="list-style-type: none"> • Umstellung auf docx Format • UL Zertifikate einsortiert • EG Konformitätserklärung hinzugefügt: EL1918, EL2911 und EP1957
1.1.0	<ul style="list-style-type: none"> • Z10 und M6A Zertifikate von EL1918, EL2911 und EP1957 eingefügt
1.0.0	<ul style="list-style-type: none"> • Erste Veröffentlichung • UL-Zertifikate hinzugefügt • cULus Online Certification Directory Daten ergänzt • Kapitel <i>Support und Service</i> hinzugefügt
0.4.0	<ul style="list-style-type: none"> • Formatierung angepasst
0.3.0	<ul style="list-style-type: none"> • Ablaufdatum der Normen hinzugefügt
0.2.0	<ul style="list-style-type: none"> • Kennzeichnung und Tabelle erweitert
0.1.0	<ul style="list-style-type: none"> • erster Entwurf

1.3 Sicherheit und Einweisung

Lesen Sie die Inhalte, welche sich auf die von Ihnen durchzuführenden Tätigkeiten mit dem Produkt beziehen. Lesen Sie immer das Kapitel Zu Ihrer Sicherheit in der Betriebsanleitung.

Beachten Sie die Warnhinweise in den Kapiteln, sodass Sie bestimmungsgemäß und sicher mit dem Produkt umgehen und arbeiten.

1.3.1 Symbolerklärung

Für eine übersichtliche Gestaltung werden verschiedene Symbole verwendet:

1. Die Nummerierung zeigt eine Handlungsanweisung, die Sie ausführen sollen.
 - Der Punkt zeigt eine Aufzählung.
- [...] Die eckigen Klammern zeigen Querverweise auf andere Textstellen in dem Dokument.
- [1] Die Zahl in eckigen Klammern zeigt die Nummerierung eines referenzierten Dokuments.

1.3.1.1 Signalwörter

Im Folgenden werden die Signalwörter eingeordnet, die in der Dokumentation verwendet werden.

Warnung vor Personenschäden

GEFAHR

Es besteht eine Gefährdung mit hohem Risikograd, die den Tod oder eine schwere Verletzung zur Folge hat.

WARNUNG

Es besteht eine Gefährdung mit mittlerem Risikograd, die den Tod oder eine schwere Verletzung zur Folge haben kann.

VORSICHT

Es besteht eine Gefährdung mit geringem Risikograd, die eine mittelschwere oder leichte Verletzung zur Folge haben kann.

Warnung vor Umwelt- oder Sachschäden

HINWEIS

Hinweise

Es besteht eine mögliche Schädigung für Umwelt, Geräte oder Daten.

Information zum Umgang mit dem Produkt



Diese Information beinhaltet z. B.:
Handlungsempfehlungen, Hilfestellungen oder weiterführende Informationen zum Produkt.

1.4 Beckhoff Support und Service

Support

Der Beckhoff Support bietet Ihnen technische Beratung bei dem Einsatz einzelner Beckhoff Produkte und Systemplanungen. Die Mitarbeiter unterstützen Sie bei der Programmierung und Inbetriebnahme komplexer Automatisierungssysteme.

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

Training

Schulungen in Deutschland finden in dem Schulungszentrum der Unternehmenszentrale in Verl, den Niederlassungen oder nach Absprache bei den Kunden vor Ort statt.

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

Service

Das Beckhoff Service-Center unterstützt Sie rund um den After-Sales-Service wie Vor-Ort-Service, Reparaturservice oder Ersatzteilservice.

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

Downloadbereich

Im Downloadbereich erhalten Sie zum Beispiel Produktinformationen, Software-Updates, die Automatisierungssoftware TwinCAT, Dokumentationen und vieles mehr.

Web: www.beckhoff.com/download

Firmenzentrale

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E-Mail: info@beckhoff.com
Web: www.beckhoff.com

Die Adressen der weltweiten Standorte entnehmen Sie unserer Website unter [Globale Präsenz](#).

2 Übersicht der TwinSAFE-Produkte

Dieses Dokument enthält eine Übersicht über alle TwinSAFE-Produkte der Firma Beckhoff Automation GmbH & Co. KG und deren Zertifizierungen und Bestätigungen.

Die entsprechenden Dokumente für jedes Produkt finden Sie im Anhang.

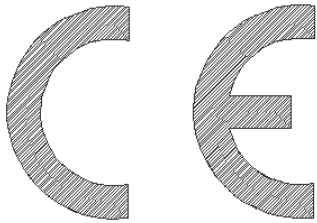
2.1 Glossar

Kennzeichen	Beschreibung
TÜV SÜD Z10	Ein Z10-Zertifikat wird für die Verwendung des Produktes in der Europäischen Union ausgestellt und enthält die für das Produkt relevanten DIN-, EN- oder IEC-Normen. In der Tabelle werden die entsprechenden Normen aufgelistet.
Konformitätsbestätigung	Eine Konformitätsbestätigung des TÜV SÜD hat typischerweise kein Ablaufdatum und bestätigt eine bestimmte Eigenschaft eines Produktes zum Prüfzeitpunkt.
TÜV SÜD U8	Ein U8-Zertifikat wird zu einer NRTL-, NFPA- oder CSA-Zertifizierung ausgestellt und beinhaltet Normen, die für den nordamerikanischen Markt relevant sind. Die Tabelle listet die entsprechenden Normen auf.
M6A	Ein M6A-Zertifikat ist die EG-Baumusterprüfbescheinigung (EC Type Examination Certificate) für das entsprechende TwinSAFE-Produkt.
EG	Die EG-Konformitätserklärung wird auf Basis des zugehörigen M6A-Zertifikats durch die Beckhoff Automation GmbH & Co. KG ausgestellt.
cULus	Der Eintrag cULus bezieht sich auf eine Zertifizierung nach UL 508 / UL 61010-1 / UL 61010-2-201 / UL 508C / UL 61800-5-1.
RoHS	In der EG-Konformitätserklärung wird die EN 50581:2012, beziehungsweise EN IEC 63000:2018, aufgeführt. Somit darf auf dem Produkt die RoHS Kennzeichnung <i>RoHS 2011/65/EU</i> angebracht werden. Die Tabelle führt dieses Kennzeichen nicht separat auf.
CE	Auf Basis der EG-Konformitätserklärung muss ein CE-Zeichen an dem Produkt angebracht werden. Die Tabelle führt dieses Kennzeichen nicht separat auf.
UKCA	Das verwendete UKCA-Kennzeichen (UKCA = UK Conformity Assessed) ist die neue britische Produktkennzeichnung, die für bestimmte Produkte erforderlich ist, die in Großbritannien (England, Wales und Schottland) in Verkehr gebracht werden. Es betrifft die meisten Produkte, für die bisher das CE-Zeichen erforderlich war.
EAC	Für den russischen Markt, welcher die Länder Russland, Weißrussland, Armenien, Kasachstan und Kirgistan umfasst, muss das EAC-Logo auf dem Produkt angebracht werden. Für Hersteller außerhalb Russlands oder außerhalb der EAWU (Eurasischen Wirtschaftsunion) ist ein in der EAWU bevollmächtigter Vertreter erforderlich, der für die Kennzeichnung verantwortlich ist.
CCC	<i>China Compulsory Certification</i> ist eine Zertifizierung für den chinesischen Markt.
KC	<i>KC (Korea Certification)</i> ist eine Zertifizierung für den südkoreanischen Markt.
RCM	<i>Regulatory Compliance Mark</i> wird für den australischen Markt verwendet und hat den Fokus auf der elektrischen Sicherheit und der elektromagnetischen Verträglichkeit. (<i>Australian Standard AS/NZS 4417 – Regulatory compliance mark for electrical and electronic equipment</i> ergänzt mit dem <i>Amendment 2</i> von Januar 2016)

2.2 Produkt-Kennzeichnung

Die Beckhoff-TwinSAFE-Komponenten werden mit folgenden Kennzeichen versehen, sofern die entsprechenden Voraussetzungen für die Verwendung des Kennzeichens erfüllt sind. Informationen dazu finden Sie auch im Glossar.

2.2.1 CE



Das verwendete CE-Kennzeichen entspricht den Vorgaben der Maschinenrichtlinie 2006/42/EG.

2.2.2 RoHS



Bei Beckhoff wird das RoHS-Kennzeichen mit einer Raute und Nennung der aktuellen Richtlinie verwendet.

2.2.3 UL 508 und UL 61010

UL 508



Die UL-Kennzeichnung variiert entsprechend des TwinSAFE-Produkts:

- AWG 28-16 bezeichnet für Klemmen, hier zum Beispiel mit einem HD-Gehäuse. Andere Produkte haben diese Kennzeichnung gar nicht oder angepasst.
- Die Temperatur gibt die spezifizierte maximale Umgebungstemperatur des Produkts an.
- Ind.Cont.Eq (*Industrial Control Equipment*) ist die Kennzeichnung unter welchem Bereich das Produkt zertifiziert ist.
- 24TB ist die Kennung für die Beckhoff Automation GmbH & Co. KG.

UL 61010



Produkte, die das *UL-Recognition*-Kennzeichen erhalten, sind in bestimmten Konstruktionsmerkmalen unvollständig oder in ihren Leistungsmerkmalen eingeschränkt. In der Auflistung der Produkte sind diese als *Komponente* gekennzeichnet.

2.2.4 UKCA



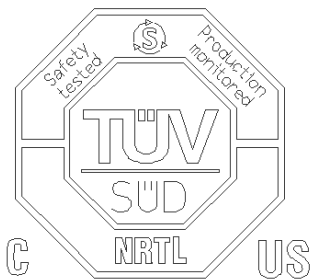
Das verwendete UKCA-Kennzeichen (UKCA = UK Conformity Assessed) ist die neue britische Produktkennzeichnung, die für bestimmte Produkte erforderlich ist, die in Großbritannien (England, Wales und Schottland) in Verkehr gebracht werden. Es betrifft die meisten Produkte, für die bisher das CE-Zeichen erforderlich war.

2.2.5 TÜV SÜD



Das TÜV-SÜD-Logo mit dem Text *Functional Safety* darf nach erfolgreicher Zertifizierung des Produktes durch den TÜV SÜD am Produkt angebracht werden. Die relevanten Normen sind die EN ISO 13849-1:2015 oder die EN 61508:2010.

2.2.6 TÜV SÜD NRTL



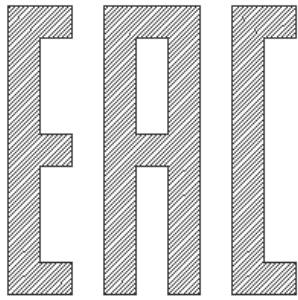
Das TÜV-SÜD-NRTL-Logo mit dem Text *Safety tested / Production monitored* darf nach erfolgreicher Zertifizierung des Produktes durch den TÜV SÜD am Produkt angebracht werden. Die relevanten Normen sind die UL 1998 und die CAN/CSA-C22.2.

2.2.7 Safety over EtherCAT



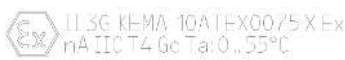
Das Safety-over-EtherCAT-Kennzeichen wird auf dem Produkt angebracht, wenn der FSoE-Conformance-Test erfolgreich absolviert wurde.

2.2.8 EAC



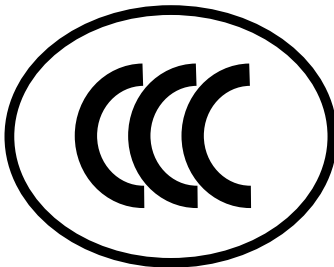
Die EAC-Kennzeichnung wird für den russischen Markt verwendet und ist vergleichbar mit der CE-Kennzeichnung.

2.2.9 ATEX



Das ATEX-Kennzeichen wird an dem Produkt angebracht, wenn eine ATEX-Zulassung für Zone 2 erfolgt ist. Die bisherige Zertifizierung erfolgte durch die KEMA, kann zukünftig aber auch durch die DEKRA erfolgen. Die Kennzeichnung wird dann entsprechend angepasst.

2.2.10 CCC



Das CCC-Kennzeichen darf auf dem Produkt angebracht werden, wenn eine Zertifizierung nach CCC (*China Compulsary Certification*) durchgeführt und bestätigt wurde.

2.2.11 KC



Das KC-Kennzeichen (*Korea Certification*) wird für den südkoreanischen Markt verwendet.

2.2.12 RCM (ehemals C-Tick)



Das RCM-Kennzeichen (*Regulatory Compliance Mark*) wird für den australischen Markt verwendet. Dieses Kennzeichen hat das C-Tick-Logo abgelöst.

2.3 TwinSAFE-Produkte

Folgende Tabelle enthält eine Auflistung der Zertifizierungen der TwinSAFE-Produkte mit den zugehörigen Normen und Richtlinien.

Erklärung der Symbole

Zeichen	Beschreibung
-	Dokument oder Zertifizierung ist nicht vorhanden.
x	Dokument oder Zertifizierung liegt vor und ist im Anhang aufgeführt.
<Datum>	Ablaufdatum des Zertifikats (engl. Datumsformat).
OCD	Online Certification Directory (UL 61010 / UL 508) UL File number: E172151 UL Category Code: NRAQ2 / NRAQ8
n.a.	Nicht anwendbar.
Spalte <i>Weitere</i>	In dieser Spalte werden alle zusätzlichen Zertifikate oder Bestätigungen aufgeführt, wie z.B. UL Recognition oder ATEX.

2.3.1 KL

Produkt	TÜV SÜD Z10 / Konformitäts-erklärung	TÜV SÜD U8	M6A / EU-ESD Baumuster-prüfbescheinigung	EG	cULus	Weitere
KL1904	Z10 062386 0061 Rev. 02 2006/42/EC EN 61508-1:2010 EN 61508-2:2010 EN 61508-3:2010 EN 62061:2021 EN ISO 13849-1:2023 <2029-07-30>	U8 07 04 62386 00 1 UL508:1999 CAN/CSA-C22.2 No. 142-M1987 UL1998:1998 UL991:2004	M6A 18 01 62386 047 <2029-07-30>	x	20160406 -E172151	<ul style="list-style-type: none"> • ATEX KEMA 10ATEX007 5 X • EAC • RoHS • NRTL
KL2904	Z10 062386 0060 Rev. 01 2006/42/EC EN 61508-1:2010 EN 61508-2:2010 EN 61508-3:2010 EN ISO 13849-1:2023 EN IEC 62061:2021 <2029-08-19>	U8 07 04 62386 00 1 UL508:1999 CAN/CSA-C22.2 No. 142-M1987 UL1998:1998 UL991:2004	M6A 062386 0108 Rev. 00 <2029-08-19>	x	20160406 -E172151	<ul style="list-style-type: none"> • ATEX KEMA 10ATEX007 5 X • EAC • RoHS • NRTL
KL6904	Z10 062386 0109 Rev. 00 2006/42/EC EN 61508-1:2010 EN 61508-2:2010 EN 61508-3:2010 EN ISO 13849-1:2023 EN IEC 62061:2021 <2029-08-21>	U8 07 04 62386 00 1 UL508:1999 CAN/CSA-C22.2 No. 142-M1987 UL1998:1998 UL991:2004	M6A 062386 0110 Rev. 00 <2029-08-21>	x	20160406 -E172151	<ul style="list-style-type: none"> • ATEX KEMA 10ATEX007 5 X • EAC • RoHS • NRTL

2.3.2 EL

Produkt	TÜV SÜD Z10 / Konformitäts-erklärung	TÜV SÜD U8	M6A / EU-ESD Baumuster-prüfbescheinigung	EG	cULus	Weitere
EL1904	Z10 062386 0111 Rev. 00 2006/42/EC EN 61508-1:2010 EN 61508-2:2010 EN 61508-3:2010 EN ISO 13849-1:2023 EN IEC 62061:2021 <2029-07-30>	U8V 062386 0085 Rev. 00 UL 61010-1:2012/ R:2018-11 CAN/CSA-C22-2 No. 61010-1:2012/ A1:2018 UL 61010-2-201:20 18 CAN/CSA-C22.2 No. 61010-2-201:2 018	M6A 062386 0095 Rev. 00 <2028-08-31> EU-ESD 043	x	20180309 -E172151	<ul style="list-style-type: none"> • ATEX KEMA 10ATEX007 5 X • EAC • RoHS • NRTL
EL1918	Z10 062386 0054 Rev. 02	-	M6A 062386 0055 Rev. 01 <2027-11-02>	x	20181116 -E172151	<ul style="list-style-type: none"> • ATEX KEMA 10ATEX007 5 X

Produkt	TÜV SÜD Z10 / Konformitäts- erklärung	TÜV SÜD U8	M6A / EU-ESD Baumuster- prüfbescheinigung	EG	cULus	Weitere
	2006/42/EC EN 61508-1:2010 EN 61508-2:2010 EN 61508-3:2010 EN 62061:2021 EN ISO 13849-1:2015 <2027-11-02>		EU-ESD 047			<ul style="list-style-type: none"> • EAC • RoHS • NRTL
EL2904	Z10 062386 0107 Rev. 00 2006/42/EC EN 61508-1:2010 EN 61508-2:2010 EN 61508-3:2010 EN ISO 13849-1:2023 EN IEC 62061:2021 <2029-08-22>	U8V 062386 0085 Rev. 00 UL 61010-1:2012/ R:2018-11 CAN/CSA-C22-2 No. 61010-1:2012/ A1:2018 UL 61010-2-201:20 18 CAN/CSA-C22.2 No. 61010-2-201:2 018	M6A 062386 0096 Rev. 01 <2029-08-22> EU-ESD 044	x	20180309 -E172151	<ul style="list-style-type: none"> • ATEX KEMA 10ATEX007 5 X • EAC • RoHS • NRTL
EL2911	Z10 062386 0056 Rev. 01 2006/42/EC EN 61508-1:2010 EN 61508-2:2010 EN 61508-3:2010 EN 62061:2021 EN ISO 13849-1:2015 <2027-11-02>	-	M6A 062386 0059 Rev. 01 <2027-11-02>	x	20181116 -E172151	<ul style="list-style-type: none"> • EAC • RoHS
EL2912	Z10 062386 0062 Rev. 01 2006/42/EC EN 61508-1:2010 EN 61508-2:2010 EN 61508-3:2010 EN IEC 62061:2021 EN ISO 13849-1:2015 <2027-11-03>	-	M6A 062386 0063 Rev. 01 <2027-11-03> EU-ESD 048	x	20181116 -E172151	<ul style="list-style-type: none"> • EAC • RoHS • NRTL
EL6900	Z10 062386 0044 Rev. 01 2006/42/EC EN 61508-1:2010 EN 61508-2:2010 EN 61508-3:2010 EN ISO 13849-1:2015 EN 13243:2015 DIN EN 61000-6-2:20 06 DIN EN 61000-6-4:20 07 <2028-05-31>	U8V 062386 0085 Rev. 00 UL 61010-1:2012/ R:2018-11 CAN/CSA-C22-2 No. 61010-1:2012/ A1:2018 UL 61010-2-201:20 18 CAN/CSA-C22.2 No. 61010-2-201:2 018	M6A 062386 0093 Rev. 00 <2028-06-13>	x	20180309 -E172151	<ul style="list-style-type: none"> • ATEX KEMA 10ATEX007 5 X • EAC • RoHS • NRTL
EL6910	Z10 062386 0034 Rev. 01	-	M6A 062386 0043 Rev. 01 <2027-12-08>	x	20180309 -E172151	<ul style="list-style-type: none"> • ATEX KEMA 10ATEX007 5 X

Produkt	TÜV SÜD Z10 / Konformitäts-erklärung	TÜV SÜD U8	M6A / EU-ESD Baumuster-prüfbescheinigung	EG	cULus	Weitere
	EN 61508-1:2010 EN 61508-2:2010 EN 61508-3:2010 EN ISO 13849-1:2015 EN 62061:2021 <2027-12-08>		EU-ESD 045			<ul style="list-style-type: none"> • EAC • RoHS
EL6930	Z10 17 10 62386 044 2006/42/EC EN 61508-1:2010 EN 61508-2:2010 EN 61508-3:2010 EN ISO 13849-1:2015 EN 81-20:2014 EN 81-22:2014 EN 81-50:2014 EN 13243:2015 DIN EN 61000-6-2:2006 DIN EN 61000-6-4:2007 <2022-10-15>	-	M6A 17 07 62386 043 <2022-07-27>	x	20180309 -E172151	<ul style="list-style-type: none"> • ATEX • KEMA • 10ATEX007 • 5 X • EAC • RoHS

2.3.3 EP

Produkt	TÜV SÜD Z10 / Konformitäts-erklärung	TÜV SÜD U8	M6A / EU-ESD Baumuster-prüfbescheinigung	EG	cULus	Weitere
EP1908	Z10 17 10 62386 046 2006/42/EC EN 61508-1:2010 EN 61508-2:2010 EN 61508-3:2010 EN ISO 13849-1:2015 <2022-10-19>	-	M6A 17 07 62386 041 <2022-07-27>	x	20171127 -E172151	<ul style="list-style-type: none"> • cURus • Hinweis auf dem Produkt (Class 2 power supply oder 4A Sicherung) • NRTL • RoHS
EP1918	Z10 062386 0075 Rev. 01 2006/42/EC EN 61508-1:2010 EN 61508-2:2010 EN 61508-3:2010 EN 62061:2021 EN ISO 13849-1:2015 <2027-11-02>	U8V 062386 0071 Rev. 00 UL 61010-1:2012/R:2018-11 UL 61010-2-201:2018 CAN/CSA-C22.2 No. 61010-1:2012 / A1:2018-11 CAN/CSA-C22.2 No. 61010-2-201:2018	M6A 062386 0076 Rev. 01 <2027-11-02>	x	Reference File E172151 Vol. D2	<ul style="list-style-type: none"> • cURus • Hinweis auf dem Produkt (Class 2 power supply oder 4A Sicherung) • NRTL • RoHS

Produkt	TÜV SÜD Z10 / Konformitäts- erklärung	TÜV SÜD U8	M6A / EU-ESD Baumuster- prüfbescheinigung	EG	cULus	Weitere
EP1957	Z10 062386 0057 Rev. 01 2006/42/EC EN 61508-1:2010 EN 61508-2:2010 EN 61508-3:2010 EN 62061:2021 EN ISO 13849-1:2015 <2027-11-08>	-	M6A 062386 0058 Rev. 00 <2027-11-08>	x	20171127 -E172151	<ul style="list-style-type: none"> cURus Hinweis auf dem Produkt (Class 2 power supply oder 4A Sicherung) NRTL RoHS
EP2918	Z10 062386 0067 Rev. 01 2006/42/EC EN 61508-1:2010 EN 61508-2:2010 EN 61508-3:2010 EN 62061:2021 EN ISO 13849-1:2015 <2027-11-08>	U8V 062386 0069 Rev. 00 UL 61010-1:2012/ R:2018-11 UL 61010-2-201:20 18 CAN/CSA-C22.2 No. 61010-1:2012 / A1:2018-11 CAN/CSA-C22.2 No. 61010-2-201:2018	M6A 062386 0068 Rev. 01 <2027-11-08>	x	-	<ul style="list-style-type: none"> cURus Hinweis auf dem Produkt (Class 2 power supply oder 4A Sicherung) NRTL

2.3.4 EK

Produkt	TÜV SÜD Z10 / Konformitäts- erklärung	TÜV SÜD U8	M6A / EU-ESD Baumuster- prüfbescheinigung	EG	cULus	Weitere
EK1914	Z10 062386 0045 Rev. 01 EN ISO 13849-1:2015 <2028-08-23>	-	M6A 062386 0040 Rev. 01 <2028-08-23>	x	20180309 -E172151	-
EK1960	Z10 17 04 62386 036 EN ISO 13849-1:2015 EN 61508-1:2010 EN 61508-2:2010 EN 61508-3:2010 EN 61508-4:2010 EN 62061:2005/ A2:2015 <2022-04-20>	-	M6A 17 07 62386 039 <2022-07-04>	x	20180309 -E172151	cURus

2.3.5 EJ

Produkt	TÜV SÜD Z10 / Konformitäts- erklärung	TÜV SÜD U8	M6A / EU-ESD Baumuster- prüfbescheinigung	EG	cULus	Weitere
EJ6910	Z10 062386 0034 Rev. 01	-	M6A 062386 0043 Rev. 01	x	NRAQ2.E 172151	cURus (OCD)

Produkt	TÜV SÜD Z10 / Konformitäts-erklärung	TÜV SÜD U8	M6A / EU-ESD Baumuster-prüfbescheinigung	EG	cULus	Weitere
	EN 61508-1:2010 EN 61508-2:2010 EN 61508-3:2010 EN ISO 13849-1:2015 EN 62061:2021 <2027-12-08>		<2027-12-08>			
EJx9xx und gehäuse-lose Varianten	Z10 062386 0037 Rev. 02 EN ISO 13849-1:2023 EN 61508-1:2010 EN 61508-2:2010 EN 61508-3:2010 EN IEC 62061:2021 <2029-10-27>	-	M6A 062386 0042 Rev. 02 <2029-10-27>	-	-	-
EJ1914	Z10 062386 0037 Rev. 02 EN ISO 13849-1:2023 EN 61508-1:2010 EN 61508-2:2010 EN 61508-3:2010 EN IEC 62061:2021 <2029-10-27>	-	M6A 062386 0042 Rev. 02 <2029-10-27>	x	NRAQ2.E 172151	cURus (OCD)
EJ1918	Z10 062386 0037 Rev. 02 EN ISO 13849-1:2023 EN 61508-1:2010 EN 61508-2:2010 EN 61508-3:2010 EN IEC 62061:2021 <2029-10-27>	-	M6A 062386 0042 Rev. 02 <2029-10-27>	x	NRAQ2.E 172151	cURus (OCD)
EJ1957	Z10 062386 0037 Rev. 02 EN ISO 13849-1:2023 EN 61508-1:2010 EN 61508-2:2010 EN 61508-3:2010 EN IEC 62061:2021 <2029-10-27>	-	M6A 062386 0042 Rev. 02 <2029-10-27>	x	NRAQ2.E 172151	cURus (OCD)
EJ2914	Z10 062386 0037 Rev. 02 EN ISO 13849-1:2023 EN 61508-1:2010 EN 61508-2:2010 EN 61508-3:2010 EN IEC 62061:2021 <2029-10-27>	-	M6A 062386 0042 Rev. 02 <2029-10-27>	x	NRAQ2.E 172151	cURus (OCD)
EJ2918	Z10 062386 0037 Rev. 02	-	M6A 062386 0042 Rev. 02 <2029-10-27>	x	NRAQ2.E 172151	cURus (OCD)

Produkt	TÜV SÜD Z10 / Konformitäts- erklärung	TÜV SÜD U8	M6A / EU-ESD Baumuster- prüfbescheinigung	EG	cULus	Weitere
	EN ISO 13849-1:2023 EN 61508-1:2010 EN 61508-2:2010 EN 61508-3:2010 EN IEC 62061:2021 <2029-10-27>					

2.3.6 AMI

Produkt	TÜV SÜD Z10 / Konformitäts- erklärung	TÜV SÜD U8	M6A / EU-ESD Baumuster- prüfbescheini- gung	EG	cULus	Weitere
AMI8911	Z10 062386 0086 Rev. 00 EN 61508-1:2010 EN 61508-2:2010 EN 61508-3:2010 IEC 62061:2021 EN ISO 13849-1:2015 EN 61800-5-2:2017 <2026-08-12>	-	M6A 062386 0087 Rev. 00 <2026-08-25>	-	-	-

2.3.7 AMP

Produkt	TÜV SÜD Z10 / Konformitäts- erklärung	TÜV SÜD U8	M6A / EU-ESD Baumuster- prüfbescheinigung	EG	cULus	Weitere
AMP8911	Z10 062386 0088 Rev. 00 EN 61508-1:2010 EN 61508-2:2010 EN 61508-3:2010 IEC 62061:2021 EN ISO 13849-1:2015 EN 61800-5-2:2017 <2026-11-03>	-	M6A 062386 0089 Rev. 00 <2026-12-02>	-	-	-

2.3.8 AX

Produkt	TÜV SÜD Z10 / Konformitäts- erklärung	TÜV SÜD U8	M6A / EU-ESD Baumuster- prüfbescheinigung	EG	cULus	Weitere
AX5801	Z10 062386 0074 Rev. 00 2006/42/EC EN ISO 13849-1:2015 IEC 61508-1:2010	-	M6A 062386 0097 Rev. 00 <2025-03-23>	x	20180514 -E195162 Siehe AX5xxx	-

Produkt	TÜV SÜD Z10 / Konformitäts-erklärung	TÜV SÜD U8	M6A / EU-ESD Baumuster-prüfbescheinigung	EG	cULus	Weitere
	IEC 61508-2:2010 IEC 61508-3:2010 IEC 62061:2005 IEC 62061:2005/ AMD1:2012 IEC 62061:2005/ AMD2:2015 IEC 61800-5-2:2016 <2025-03-23>					
AX5805	Z10 062386 0098 Rev. 00 2006/42/EC EN ISO 13849-1:2015 EN 61508-1:2010 EN 61508-2:2010 EN 61508-3:2010 EN 62061:2021 EN 61800-5-2:2017 <2028-10-23>	-	M6A 062386 0101 Rev. 00 <2028-10-25>	x	20180514 -E195162 Siehe AX5xxx	-
AX5806	Z10 062386 0098 Rev. 00 2006/42/EC EN ISO 13849-1:2015 EN 61508-1:2010 EN 61508-2:2010 EN 61508-3:2010 EN 62061:2021 EN 61800-5-2:2017 <2028-10-23>	-	M6A 062386 0101 Rev. 00 <2028-10-25>	x	20180514 -E195162 Siehe AX5xxx	-
AX8911	Z10 062386 0064 Rev. 02 IEC 61508-1:2010 IEC 61508-2:2010 IEC 61508-3:2010 IEC 62061:2021 EN ISO 13849-1:2015 IEC 61800-5-2:2016 <2027-12-06>	-	M6A 062386 0081 Rev. 01 <2027-12-06>	x	20160608 -E195162 Siehe AX8xxx	-

2.3.9 ELM

Produkt	TÜV SÜD Z10 / Konformitäts-erklärung	TÜV SÜD U8	M6A / EU-ESD Baumuster-prüfbescheinigung	EG	cULus	Weitere
ELM8911	Z10 062386 0099 Rev. 00 EN 61508-1:2010 EN 61508-2:2010 EN 61508-3:2010 IEC 62061:2021 EN ISO 13849-1:2023 EN 61800-5-2:2017	-	M6A 062386 0100 Rev. 00 <2028-10-26>	-	-	-

Produkt	TÜV SÜD Z10 / Konformitäts- erklärung	TÜV SÜD U8	M6A / EU-ESD Baumuster- prüfbescheinigung	EG	cULus	Weitere
	<2028-10-26>					

2.3.10 Software

Produkt	TÜV SÜD Z10 / Konformitäts- erklärung	TÜV SÜD U8	M6A / EU-ESD Baumuster- prüfbescheinigung	EG	cULus	Weitere
TwinSAFE Loader	EN 61508:2010 (eingestuft als T2- Tool)	n.a.	n.a.	n.a.	n.a.	
TwinSAFE User	EN 61508:2010 (eingestuft als T1- Tool)	n.a.	n.a.	n.a.	n.a.	
TwinCAT Safety PLC	Z10 16 12 62386 035 EN ISO 13849-1:2015 IEC 61508-1 (ed.2) IEC 61508-2 (ed.2) IEC 61508-3 (ed.2) IEC 61508-4 (ed.2) <2021-12-08>	n.a.	n.a.	n.a.	n.a.	

2.3.11 Diverses

Produkt	TÜV SÜD Z10 / Konformitäts- erklärung	TÜV SÜD U8	M6A / EU-ESD Baumuster- prüfbescheinigung	EG	cULus	Weitere
TwinSAFE Applicatio n Guide	EN ISO 13849-1:2015 EN 61508:2010	n.a.	n.a.	n.a.	n.a.	
Safety- over- EtherCAT (FSoE)	Z10 18 04 62386 053 IEC 61508-1:2010 IEC 61508-2:2010 IEC 61508-3:2010 IEC 61508-4:2010 IEC 61783-3:2016 <2023-04-16>	n.a.	n.a.	n.a.	n.a.	

3 TÜV-Zertifikate und EG-Konformitätserklärungen

Dieses Dokument enthält die öffentlichen Dokumente zur Zertifizierung der entsprechenden Produkte. Weiterführende oder tiefergehende Informationen und Dokumente werden typischerweise nicht veröffentlicht.

Folgende Kapitel listen die für das jeweilige Produkt relevanten Zertifikate, wie Z10- und M6A-Zertifikate des TÜV SÜD, die EG-Konformitätserklärungen und weitere Zertifikate, wie zum Beispiel die UL-Zertifikate auf.

3.1 KL1904

Auf den nächsten Seiten erhalten Sie eine Übersicht der aktuellen Zertifikate der TwinSAFE-Komponente KL1904.

<p>ZERTIFIKAT ◆ CERTIFICATE 認證書 ◆ CERTIFICADO ◆ CERTIFICAT</p>	  <p>Product Service</p>						
<h1>CERTIFICATE</h1> <p>No. Z10 062386 0061 Rev. 02</p>							
<p>Holder of Certificate: Beckhoff Automation GmbH & Co. KG Hülshorstweg 20 33415 Verl GERMANY</p>							
<p>Certification Mark:</p> <div style="text-align: center;">  </div>							
<p>Product: Safety components</p>							
<p>Model(s): KL1904</p>							
<p>Parameters:</p> <table border="0" style="width: 100%;"> <tr> <td style="width: 50%;">Safety integrity level</td> <td>up to SIL 3</td> </tr> <tr> <td>Category</td> <td>Cat. 4</td> </tr> <tr> <td>Performance level</td> <td>PL e</td> </tr> </table>		Safety integrity level	up to SIL 3	Category	Cat. 4	Performance level	PL e
Safety integrity level	up to SIL 3						
Category	Cat. 4						
Performance level	PL e						
<p>Tested according to:</p> <p>2006/42/EC EN 61508-1:2010 EN 61508-2:2010 EN 61508-3:2010 EN ISO 13849-1:2023 EN IEC 62061:2021</p>							
<p>The product was tested on a voluntary basis and complies with the essential requirements. The certification mark shown above can be affixed on the product. It is not permitted to alter the certification mark in any way. In addition the certification holder must not transfer the certificate to third parties. This certificate is valid until the listed date, unless it is cancelled earlier. All applicable requirements of the Testing, Certification, Validation and Verification Regulations of TÜV SÜD Group have to be complied. For details see: www.tuvsud.com/ps-cert</p>							
<p>Test report no.: BV102742C</p>							
<p>Valid until: 2029-07-30</p>							
<p>Date, 2024-08-29</p>							
 (Christian Dimeier)							
<p>Page 1 of 1 TÜV SÜD Product Service GmbH • Certification Body • Ridlerstraße 65 • 80339 Munich • Germany</p>							
							

Abb. 1: KL1904 – Z10 „Functional Safety“-Zertifikat

ZERTIFIKAT • CERTIFICATE • 認証証書 • CERTIFICADO • CERTIFICAT



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:



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

Abb. 2: KL1904 – U8 NRTL-Zertifikat

ZERTIFIKAT ◆ CERTIFICATE ◆ 認証証書 ◆ 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

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




Abb. 3: KL1904 – M6A EG-Baumusterprüfbescheinigung

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-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 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

Abb. 4: KL1904 – EG-Konformitätserklärung

CERTIFICATE OF COMPLIANCE

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

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



Bruce Mahrenholz, Director North American Certification Program
 UL LLC

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Abb. 5: KL1904 – UL-Zertifikat, Seite 3



CERTIFICATE

(1) Type Examination

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

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

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

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

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

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

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

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

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

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

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

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

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

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



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

Date of certification: 9 July 2020

DEKRA Certification B.V.



R. Schuller
Certification Manager

Page 1/3

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

Abb. 6: Typ KL – ATEX-Zertifikat

3.2 KL2904

Auf den nächsten Seiten erhalten Sie eine Übersicht der aktuellen Zertifikate der TwinSAFE-Komponente KL2904.

ZERTIFIKAT ◆ CERTIFICATE 認證書 ◆ CERTIFICADO ◆ CERTIFICAT		 Product Service							
	<h1 style="margin: 0;">CERTIFICATE</h1> <p style="margin: 0;">No. Z10 062386 0060 Rev. 01</p>								
	Holder of Certificate:	Beckhoff Automation GmbH & Co. KG Hülshorstweg 20 33415 Verl GERMANY							
	Certification Mark:								
	Product:	Safety components							
	Model(s):	KL2904							
	Parameters:	<table border="0" style="width: 100%;"> <tr> <td style="padding-right: 20px;">Safety integrity level</td> <td>up to SIL 3</td> </tr> <tr> <td>Category</td> <td>Cat. 4</td> </tr> <tr> <td>Performance level</td> <td>PL e</td> </tr> </table>		Safety integrity level	up to SIL 3	Category	Cat. 4	Performance level	PL e
	Safety integrity level	up to SIL 3							
	Category	Cat. 4							
	Performance level	PL e							
Tested according to:	2006/42/EC EN 61508-1:2010 EN 61508-2:2010 EN 61508-3:2010 EN ISO 13849-1:2023 EN IEC 62061:2021								
<p style="font-size: small;">The product was tested on a voluntary basis and complies with the essential requirements. The certification mark shown above can be affixed on the product. It is not permitted to alter the certification mark in any way. In addition the certification holder must not transfer the certificate to third parties. This certificate is valid until the listed date, unless it is cancelled earlier. All applicable requirements of the Testing, Certification, Validation and Verification Regulations of TÜV SÜD Group have to be complied. For details see: www.tuvsud.com/ps-cert</p>									
Test report no.:	BV103503C								
Valid until:	2029-08-19								
Date,	2024-08-21								
 (Christian Dirmeier)									
<p style="font-size: x-small;">Page 1 of 1 TÜV SÜD Product Service GmbH • Certification Body • Ridlerstraße 65 • 80339 Munich • Germany</p>									
									

Abb. 7: KL2904 – Z10 „Functional Safety“-Zertifikat

ZERTIFIKAT • CERTIFICATE • 認証証書 • CERTIFICADO • CERTIFICAT



America

CERTIFICATE

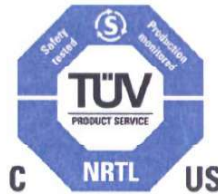
No. U8 07 04 62386 001

Holder of Certificate: BECKHOFF Automation GmbH

Eiserstraße 5
33415 Verl
GERMANY

Production Facility(ies): 62386

Certification Mark:



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

Page 1 of 1



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Abb. 8: KL2904 – U8 NRTL-Zertifikat

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ CERTIFICADO ◆ CERTIFICAT



Product Service

EC-Type Examination Certificate

No. M6A 062386 0108 Rev. 00

Holder of Certificate:	Beckhoff Automation GmbH & Co. KG Hülshorstweg 20 33415 Verl GERMANY						
Product:	Safety components						
Model(s):	KL2904						
Parameters:	<table style="width: 100%; border: none;"> <tr> <td style="width: 60%;">Safety integrity level</td> <td>up to SIL 3</td> </tr> <tr> <td>Category</td> <td>Cat. 4</td> </tr> <tr> <td>Performance level</td> <td>PL e</td> </tr> </table>	Safety integrity level	up to SIL 3	Category	Cat. 4	Performance level	PL e
Safety integrity level	up to SIL 3						
Category	Cat. 4						
Performance level	PL e						

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

Test report no.:	BV103503C
Valid until:	2029-08-19
Date,	2024-08-21



(Christian Dirmeier)

Page 1 of 1
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Abb. 9: KL2904 – M6A EG-Baumusterprüfbescheinigung

BECKHOFF New Automation Technology

Originalerklärung
Original declaration

EG-Konformitätserklärung
EC Declaration of Conformity

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

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

erklärt, dass das Produkt
declares that the product
TwinSAFE KL2904
4-Kanal-Digital-Ausgangsklemme, TwinSAFE, 24V DC
4-Channel-Digital-Output-Terminal, TwinSAFE, 24V DC

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

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

Angewandte Normen
Applied Standards

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

Die Übereinstimmung eines Baumusters des bezeichneten Produkts mit der EG-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 18 01 62386 048, 2018-01-26

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

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

Verl, 06.02.2018

Dipl.-Phys. Hans Beckhoff

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

Abb. 10: KL2904 – EG-Konformitätserklärung

CERTIFICATE OF COMPLIANCE

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

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



Bruce Mahrenholz, Director North American Certification Program
 UL LLC

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Abb. 11: KL2904 – UL-Zertifikat, Seite 4



CERTIFICATE

(1) **Type Examination**

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

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

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

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

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

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

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

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

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

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

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

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

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

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



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

Date of certification: **9 July 2020**

DEKRA Certification B.V.

R. Schuller
Certification Manager

Page 1/3

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T +31 88 96 83000 F +31 88 96 83100 www.dekra-product-safety.com Registered Arnhem 09085396

Abb. 12: Typ KL – ATEX-Zertifikat

3.3 KL6904

Auf den nächsten Seiten erhalten Sie eine Übersicht der aktuellen Zertifikate der TwinSAFE-Komponente KL6904.

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證書 ◆ CERTIFICADO ◆ CERTIFICAT		 Product Service							
	<h1 style="margin: 0;">CERTIFICATE</h1> <p style="margin: 0;">No. Z10 062386 0109 Rev. 00</p>								
	Holder of Certificate:	Beckhoff Automation GmbH & Co. KG Hülshorstweg 20 33415 Verl GERMANY							
	Certification Mark:								
	Product:	Safety components							
	Model(s):	KL6904							
	Parameters:	<table border="0" style="width: 100%;"> <tr> <td style="padding-right: 20px;">Safety integrity level</td> <td>up to SIL 3</td> </tr> <tr> <td>Category</td> <td>Cat. 4</td> </tr> <tr> <td>Performance level</td> <td>PL e</td> </tr> </table>		Safety integrity level	up to SIL 3	Category	Cat. 4	Performance level	PL e
	Safety integrity level	up to SIL 3							
	Category	Cat. 4							
	Performance level	PL e							
Tested according to:	2006/42/EC EN 61508-1:2010 EN 61508-2:2010 EN 61508-3:2010 EN ISO 13849-1:2023 EN IEC 62061:2021								
<p style="font-size: small;">The product was tested on a voluntary basis and complies with the essential requirements. The certification mark shown above can be affixed on the product. It is not permitted to alter the certification mark in any way. In addition the certification holder must not transfer the certificate to third parties. This certificate is valid until the listed date, unless it is cancelled earlier. All applicable requirements of the Testing, Certification, Validation and Verification Regulations of TÜV SÜD Group have to be complied. For details see: www.tuvsud.com/ps-cert</p>									
Test report no.:	BV103524C								
Valid until:	2029-08-21								
Date,	2024-08-22								
 (Christian Dirmeier)									
<p style="font-size: x-small;">Page 1 of 1 TÜV SÜD Product Service GmbH • Certification Body • Ridlerstraße 65 • 80339 Munich • Germany</p>									
									

Abb. 13: KL6904 – Z10 „Functional Safety“-Zertifikat

ZERTIFIKAT • CERTIFICATE • 認証証書 • CERTIFICADO • CERTIFICAT



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:



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

Page 1 of 1



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Abb. 14: KL6904 – U8 NRTL-Zertifikat

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證書 ◆ CERTIFICADO ◆ CERTIFICAT



Product Service

EC-Type Examination Certificate

No. M6A 062386 0110 Rev. 00

Holder of Certificate:	Beckhoff Automation GmbH & Co. KG Hülshorstweg 20 33415 Verl GERMANY						
Product:	Safety components						
Model(s):	KL6904						
Parameters:	<table style="width: 100%; border: none;"> <tr> <td style="width: 60%;">Safety integrity level</td> <td>up to SIL 3</td> </tr> <tr> <td>Category</td> <td>Cat. 4</td> </tr> <tr> <td>Performance level</td> <td>PL e</td> </tr> </table>	Safety integrity level	up to SIL 3	Category	Cat. 4	Performance level	PL e
Safety integrity level	up to SIL 3						
Category	Cat. 4						
Performance level	PL e						

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

Test report no.:	BV103524C
Valid until:	2029-08-21
Date,	2024-08-22



(Christian Dirmeier)

Page 1 of 1
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Abb. 15: KL6904 – M6A EG-Baumusterprüfbescheinigung

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-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 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

Abb. 16: KL6904 – EG-Konformitätserklärung

CERTIFICATE OF COMPLIANCE

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

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



Bruce Mahrenholz, Director North American Certification Program
UL LLC

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Abb. 17: KL6904 – UL-Zertifikat, Seite 6



CERTIFICATE

(1) **Type Examination**

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

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

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

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

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

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

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

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

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

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

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

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

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

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



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

Date of certification: **9 July 2020**

DEKRA Certification B.V.

R. Schuller
Certification Manager

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

Abb. 18: Typ KL – ATEX-Zertifikat

3.4 EL1904

Auf den nächsten Seiten erhalten Sie eine Übersicht der aktuellen Zertifikate der TwinSAFE-Komponente EL1904.

ZERTIFIKAT ◆ CERTIFICATE 認證書 ◆ CERTIFICADO ◆ CERTIFICAT		 Product Service							
	<h1 style="margin: 0;">CERTIFICATE</h1> <p style="margin: 0;">No. Z10 062386 0111 Rev. 00</p>								
	Holder of Certificate:	Beckhoff Automation GmbH & Co. KG Hülshorstweg 20 33415 Verl GERMANY							
	Certification Mark:								
	Product:	Safety components							
	Model(s):	EL1904							
	Parameters:	<table border="0" style="width: 100%;"> <tr> <td style="padding-right: 20px;">Safety integrity level</td> <td>up to SIL 3</td> </tr> <tr> <td>Category</td> <td>Cat. 4</td> </tr> <tr> <td>Performance level</td> <td>PL e</td> </tr> </table>		Safety integrity level	up to SIL 3	Category	Cat. 4	Performance level	PL e
	Safety integrity level	up to SIL 3							
	Category	Cat. 4							
	Performance level	PL e							
Tested according to:	2006/42/EC EN 61508-1:2010 EN 61508-2:2010 EN 61508-3:2010 EN ISO 13849-1:2023 EN IEC 62061:2021								
<p style="font-size: small;">The product was tested on a voluntary basis and complies with the essential requirements. The certification mark shown above can be affixed on the product. It is not permitted to alter the certification mark in any way. In addition the certification holder must not transfer the certificate to third parties. This certificate is valid until the listed date, unless it is cancelled earlier. All applicable requirements of the Testing, Certification, Validation and Verification Regulations of TÜV SÜD Group have to be complied. For details see: www.tuvsud.com/ps-cert</p>									
Test report no.:	BV103531C								
Valid until:	2029-07-30								
Date,	2024-08-26								
		 (Christian Dirmeier)							
Page 1 of 1 TÜV SÜD Product Service GmbH • Certification Body • Ridlerstraße 65 • 80339 Munich • Germany									

Abb. 19: EL1904 – Z10 „Functional Safety“-Zertifikat

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ CERTIFICADO ◆ CERTIFICAT



America

CERTIFICATE

No. U8V 062386 0085 Rev. 00

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

Certification Mark:



Product: **Programmable Controller**

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

Test report no.: 713197340

Date, 2021-05-11

Susanne Dormann
 (Susanne Dormann)

Page 1 of 2

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Abb. 20: EL1904 – U8V NRTL-Zertifikat, Seite 1



America

CERTIFICATE

No. U8V 062386 0085 Rev. 00

Model(s): EL1904
EL2904
EL6900

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

Parameters:

EL1904
Rated voltage: 24 V
Rated frequency: dc
Rated current: 10 A current load on Bus Coupler
power consumption max 200 mA
Environmental Conditions: 55°C, IP20

EL2904
Rated voltage: 24 V
Rated frequency: dc
Rated current: 10 A current load on Bus Coupler
power consumption max 188 mA
Environmental Conditions: 55°C, IP20
Outputs: 4 outputs, 24 Vdc, 0.5 A each output

EL6900
Rated voltage: 24 V
Rated frequency: dc
Rated current: 10 A current load on Bus Coupler
power consumption max 221 mA
Environmental Conditions: 55°C, IP20

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

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

Page 2 of 2

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Abb. 21: EL1904 – U8V NRTL-Zertifikat, Seite 2

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證書 ◆ CERTIFICADO ◆ CERTIFICAT



Product Service

EC-Type Examination Certificate

No. M6A 062386 0112 Rev. 00

Holder of Certificate:	Beckhoff Automation GmbH & Co. KG Hülshorstweg 20 33415 Verl GERMANY
Product:	Safety components
Model(s):	EL1904
Parameters:	Safety integrity level up to SIL 3 Category Cat. 4 Performance level PL e

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

Test report no.:	BV103531C
Valid until:	2029-07-30
Date,	2024-08-26



(Christian Dirmeier)

Page 1 of 1
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Abb. 22: EL1904 – M6A EG-Baumusterprüfbescheinigung gemäß der Richtlinie 2006/42/EC


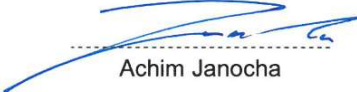


ZERTIFIKAT ◆ CERTIFICATE ◆ 認証証書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT	 Industrie Service	
	<h2>EU-BAUMUSTERPRÜFBESCHEINIGUNG</h2> <h3>EU-TYPE EXAMINATION CERTIFICATE</h3>	
	<p>gemäß Anhang IV, Absatz A der Richtlinie 2014/33/EU / According to Annex IV, Part A of Directive 2014/33/EU</p>	
	Bescheinigungs-Nr. / Certificate No.:	EU-ESD 043
	Notifizierte Stelle / Notified Body:	TÜV SÜD Industrie Service GmbH Westendstr. 199 80686 München - Germany Identification No. 0036
	Bescheinigungsinhaber / Certificate Holder:	Beckhoff Automation GmbH Hülshorstweg 20 33415 Verl - Germany
	Hersteller des Prüfmusters / Manufacturer of the Test Sample: <small>(Hersteller Serienfertigung - siehe Anlage / Manufacturer of Serial Production - see Enclosure)</small>	Beckhoff Automation GmbH Hülshorstweg 20 33415 Verl - Germany
	Produkt / Product:	Elektronische Sicherheitsschaltung mit vier digitalen, fehlersicheren Eingängen. <i>Electronic safety circuit with four digital fail-safe inputs.</i>
	Typ / Type:	EL1904
	Richtlinie / Directive:	2014/33/EU
Prüfgrundlage / Reference Standards:	EN 81-20:2020 EN 81-22:2014 EN 81-50:2020	
Prüfbericht / Test report:	No. EU-ESD 043 dated 2021-05-05	
Ergebnis / Outcome:	Das Sicherheitsbauteil entspricht den wesentlichen Gesundheitsschutz- und Sicherheitsanforderungen der o.g. Richtlinie, sofern die Anforderungen des Anhangs dieser EU-Baumusterprüfbescheinigung eingehalten sind. <i>The product conforms to the essential health and safety requirements of the mentioned Directive if the requirements of the annex to this EU-type examination certificate are kept.</i>	
Ausstellungsdatum / Date of Issue:	05.05.2021	
	 Achim Janocha Notifizierte Stelle LCC	
		
		

Abb. 23: EL1904 – EU-ESD EU-Baumusterprüfbescheinigung gemäß der Richtlinie 2014/33/EU

BECKHOFF New Automation Technology

Originalerklärung
Original declaration

EG-Konformitätserklärung
EC Declaration of Conformity

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

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

erklärt, dass das Produkt
declares that the product
TwinSAFE EL1904
4-Kanal-Digital-Eingangsklemme, TwinSAFE, 24 V_{DC}
4-Channel-Digital-Input-Terminal, TwinSAFE, 24 V_{DC}

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

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

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

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

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

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

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

Bevollmächtigter
Authorised person

Verl, 22.9.2023

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

Hans Beckhoff

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

Abb. 24: EL1904 – EG-Konformitätserklärung

CERTIFICATE OF COMPLIANCE

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

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

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

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

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

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



Bruce Mahrenholz, Director North American Certification Program
UL LLC

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/>



Abb. 25: EL1904 – UL-Zertifikat, Seite 2



CERTIFICATE

(1) **Type Examination**

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

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

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

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

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

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

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

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

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

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

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

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

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

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



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

Date of certification: **9 July 2020**

DEKRA Certification B.V.

R. Schuller
Certification Manager

Page 1/3

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T +31 88 96 83000 F +31 88 96 83100 www.dekra-product-safety.com Registered Arnhem 09085396

Abb. 26: Typ EL – ATEX-Zertifikat

3.5 EL1918

Auf den nächsten Seiten erhalten Sie eine Übersicht der aktuellen Zertifikate der TwinSAFE-Komponente EL1918.

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ CERTIFICADO ◆ CERTIFIKAT ◆ CERTIFICATE		 Product Service	
	<h1 style="margin: 0;">CERTIFICATE</h1> <p style="margin: 0;">No. Z10 062386 0054 Rev. 02</p>		
	Holder of Certificate:	Beckhoff Automation GmbH & Co. KG Hülshorstweg 20 33415 Verl GERMANY	
	Certification Mark:		
	Product:	Safety components	
	Model(s):	EL1918	
	Parameters:	Supply voltage: 24VDC (-15%/+20%) Ambient temperature: -25°C...+55°C Protection class: IP20	
	Tested according to:	2006/42/EC EN 61508-1:2010 (SIL1-3) EN 61508-2:2010 (SIL1-3) EN 61508-3:2010 (SIL1-3) EN 62061:2021 (max. SIL 3) EN ISO 13849-1:2015 (Cat 4, PL e)	
	<p>The product was tested on a voluntary basis and complies with the essential requirements. The certification mark shown above can be affixed on the product. It is not permitted to alter the certification mark in any way. In addition the certification holder must not transfer the certificate to third parties. This certificate is valid until the listed date, unless it is cancelled earlier. All applicable requirements of the testing and certification regulations of TÜV SÜD Group have to be complied. For details see: www.tuvsud.com/ps-cert</p>		
	Test report no.:	BV99670C	
Valid until:	2027-11-02		
Date,	2022-11-04		
 (Peter Weiß)			
Page 1 of 1 TÜV SÜD Product Service GmbH • Certification Body • Ridlerstraße 65 • 80339 Munich • Germany			
			

Abb. 27: EL1918 – Z10 „Functional Safety“-Zertifikat

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證書 ◆ CERTIFICADO ◆ CERTIFICAT



Product Service

EC-Type Examination Certificate

No. M6A 062386 0055 Rev. 01

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

Product: **Safety components**

Model(s): **EL1918**

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

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

Test report no.: BV99670C

Valid until: 2027-11-02

Date, 2022-11-04

(Peter Weiß)

Page 1 of 1
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Abb. 28: EL1918 – M6A EG-Baumusterprüfbescheinigung gemäß der Richtlinie 2006/42/EG



ZERTIFIKAT ◆ CERTIFICATE ◆ CERTIFICADO ◆ CERTIFICAT ◆ СЕРТИФИКАТ ◆ 認証証書 ◆ CERTIFICATE ◆	 Industrie Service	
	<h2>EU-BAUMUSTERPRÜFBESCHEINIGUNG</h2> <h3>EU-TYPE EXAMINATION CERTIFICATE</h3>	
	<small>gemäß Anhang IV, Absatz A der Richtlinie 2014/33/EU / According to Annex IV, Part A of Directive 2014/33/EU</small>	
	Bescheinigungs-Nr. / Certificate No.:	EU-ESD 047
	Notifizierte Stelle / Notified Body:	TÜV SÜD Industrie Service GmbH Westendstr. 199 80686 München - Germany Identification No. 0036
	Bescheinigungsinhaber / Certificate Holder:	Beckhoff Automation GmbH Hülshorstweg 20 33415 Verl - Germany
	Hersteller des Prüfmusters / Manufacturer of the Test Sample: <small>(Hersteller Serienfertigung - siehe Anlage / Manufacturer of Serial Production - see Enclosure)</small>	Beckhoff Automation GmbH Hülshorstweg 20 33415 Verl - Germany
	Produkt / Product:	Elektronische Sicherheitsschaltung mit acht digitalen, fehlersicheren Eingängen. <i>Electronic safety circuit with eight digital fail-safe inputs.</i>
	Typ / Type:	EL1918
	Richtlinie / Directive:	2014/33/EU
Prüfgrundlage / Reference Standards:	EN 81-20:2020 EN 81-22:2014 EN 81-50:2020	
Prüfbericht / Test report:	No. EU-ESD 047 dated 2021-06-25	
Ergebnis / Outcome:	Das Sicherheitsbauteil entspricht den wesentlichen Gesundheitsschutz- und Sicherheitsanforderungen der o.g. Richtlinie, sofern die Anforderungen des Anhangs dieser EU-Baumusterprüfbescheinigung eingehalten sind. <i>The product conforms to the essential health and safety requirements of the mentioned Directive if the requirements of the annex to this EU-type examination certificate are kept.</i>	
Ausstellungsdatum / Date of Issue:	12.07.2021	
	 Achim Janocha Notifizierte Stelle LCC	
	 TÜV®	

Abb. 29: EL1918 – EU-ESD EU-Baumusterprüfbescheinigung gemäß der Richtlinie 2014/33/EU

BECKHOFF New Automation Technology

Originalerklärung
Original declaration

EG-Konformitätserklärung
EC Declaration of Conformity

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

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

erklärt, dass das Produkt TwinSAFE EL1918
declares that the product 8-Kanal-Digital-Eingangsklemme, TwinSAFE, 24V DC
8-Channel-Digital-Input-Terminal, TwinSAFE, 24V DC

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

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

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

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

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

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

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

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

Verl, 09.11.2022
Place / Date

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

Abb. 30: EL1918 – EG-Konformitätserklärung

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

B. Mahrenholz

Bruce Mahrenholz, Director North American Certification Program
UL LLC

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Abb. 31: EL1918 – UL-Zertifikat, Seite 5

3.6 EL2904

Auf den nächsten Seiten erhalten Sie eine Übersicht der aktuellen Zertifikate der TwinSAFE-Komponente EL2904.

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證書 ◆ CERTIFICADO ◆ CERTIFICAT




Product Service

CERTIFICATE

No. Z10 062386 0107 Rev. 00

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

Certification Mark:



Product: **Safety components**

Model(s): **EL2904**

Parameters:

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

Tested according to:

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

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

Test report no.: BV103506C

Valid until: 2029-08-22

Date, 2024-08-23



(Christian Dirmeier)

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



Abb. 32: EL2904 – Z10 „Functional Safety“-Zertifikat



America

CERTIFICATE

No. U8V 062386 0085 Rev. 00

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

Certification Mark:



Product:

Programmable Controller

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

Test report no.: 713197340

Date, 2021-05-11

(Susanne Dormann)

Page 1 of 2

TÜV SÜD America, Inc. • 401 Edgewater Place Suite #500 • Wakefield • MA 01880 • USA

TUV®

Abb. 33: EL2904 – U8V NRTL-Zertifikat, Seite 1

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證書 ◆ CERTIFICADO ◆ CERTIFICAT



CERTIFICATE

No. U8V 062386 0085 Rev. 00

Model(s): EL1904
EL2904
EL6900

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

Parameters:

EL1904
Rated voltage: 24 V
Rated frequency: dc
Rated current: 10 A current load on Bus Coupler
power consumption max 200 mA
Environmental Conditions: 55°C, IP20

EL2904
Rated voltage: 24 V
Rated frequency: dc
Rated current: 10 A current load on Bus Coupler
power consumption max 188 mA
Environmental Conditions: 55°C, IP20
Outputs: 4 outputs, 24 Vdc, 0.5 A each output

EL6900
Rated voltage: 24 V
Rated frequency: dc
Rated current: 10 A current load on Bus Coupler
power consumption max 221 mA
Environmental Conditions: 55°C, IP20

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

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

Abb. 34: EL2904 – U8V NRTL-Zertifikat, Seite 2

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證書 ◆ CERTIFICADO ◆ CERTIFICAT



Product Service

EC-Type Examination Certificate

No. M6A 062386 0096 Rev. 01

Holder of Certificate:	Beckhoff Automation GmbH & Co. KG Hülshorstweg 20 33415 Verl GERMANY						
Product:	Safety components						
Model(s):	EL2904						
Parameters:	<table style="width: 100%; border: none;"> <tr> <td style="width: 60%;">Safety integrity level</td> <td>up to SIL 3</td> </tr> <tr> <td>Category</td> <td>Cat. 4</td> </tr> <tr> <td>Performance level</td> <td>PL e</td> </tr> </table>	Safety integrity level	up to SIL 3	Category	Cat. 4	Performance level	PL e
Safety integrity level	up to SIL 3						
Category	Cat. 4						
Performance level	PL e						

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

Test report no.:	BV103506C
Valid until:	2029-08-22
Date,	2024-08-26



(Christian Dirmeier)


Page 1 of 1
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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Abb. 35: EL2904 – M6A EG-Baumusterprüfbescheinigung gemäß der Richtlinie 2006/42/EC

ZERTIFIKAT ◆ CERTIFICATE ◆ 認証証書 ◆ CERTIFICADO ◆ CERTIFICAT

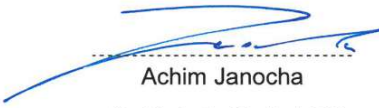


Industrie Service


EU-BAUMUSTERPRÜFBESCHEINIGUNG EU-TYPE EXAMINATION CERTIFICATE

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

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



Achim Janocha
Notifizierte Stelle LCC






Abb. 36: EL2904 – EU-ESD EU-Baumusterprüfbescheinigung gemäß der Richtlinie 2014/33/EU

BECKHOFF New Automation TechnologyOriginalerklärung
Original declaration**EG-Konformitätserklärung**

EC Declaration of Conformity

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

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

erklärt, dass das Produkt
declares that the product
TwinSAFE EL2904
4-Kanal-Digital-Ausgangsklemme, TwinSAFE, 24 V_{DC}
4-Channel-Digital-Output-Terminal, TwinSAFE, 24 V_{DC}

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

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

Die Konformität mit den Bestimmungen der genannten Richtlinien wird durch Einhaltung der folgenden Normen nachgewiesen:

The conformity with the listed directives is proved by compliance with the following standards:

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

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

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

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

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

Verl, 22.9.2023
Ort / Datum
Place / Date

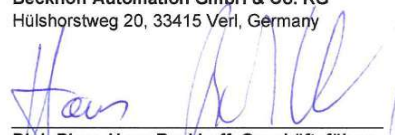

Dipl.-Phys. Hans Beckhoff, Geschäftsführer
Dipl.-Phys. Hans Beckhoff, CEO

Abb. 37: EL2904 – EG-Konformitätserklärung

CERTIFICATE OF COMPLIANCE

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

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

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

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

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

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



Bruce Mahrenholz, Director North American Certification Program
 UL LLC

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Abb. 38: EL2904 – UL-Zertifikat, Seite 2

DEKRA

CERTIFICATE

(1) **Type Examination**

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

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

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

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

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

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

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

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

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

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

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

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

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

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



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

Date of certification: 9 July 2020

DEKRA Certification B.V.



R. Schuller
Certification Manager

Page 1/3

° Integral publication of this certificate and adjoining reports is allowed. This Certificate may only be reproduced in its entirety and without any change.

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

Abb. 39: Typ EL – ATEX-Zertifikat

3.7 EL2911

Auf den folgenden Seiten erhalten Sie eine Übersicht der aktuellen Zertifikate der TwinSAFE-Komponente EL2911.

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ CERTIFICADO ◆ CERTIFICAT




CERTIFICATE

No. Z10 062386 0056 Rev. 01

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

Certification Mark:



Product: Safety components
Model(s): EL2911

Parameters:

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

Tested according to:

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

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

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

Date, 2022-11-03



(Peter Weiß)

Page 1 of 1
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Abb. 40: EL2911 – Z10 „Functional Safety“-Zertifikat



Product Service

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證書 ◆ CERTIFICADO ◆ CERTIFICAT

EC-Type Examination Certificate

No. M6A 062386 0059 Rev. 01

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

Product: Safety components
Model(s): EL2911

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

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

Test report no.: BV99686C

Valid until: 2027-11-02

Date, 2022-11-03

(Peter Weiß)

Page 1 of 1

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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TÜV®

Abb. 41: EL2911 – M6A EG-Baumusterprüfbescheinigung

BECKHOFF New Automation Technology

Originalerklärung
Original declaration

EG-Konformitätserklärung

EC Declaration of Conformity

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

Hersteller Beckhoff Automation GmbH & Co. KG
Manufacturer Hülschhorstweg 20, 33415 Verl, Germany

erklärt, dass das Produkt **TwinSAFE EL2911**
declares that the product TwinSAFE Potentialeinspeiseklemme mit 4 sicheren Eingängen, 24V DC
TwinSAFE potential supply terminal with 4 safe inputs, 24V DC

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

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

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

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

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

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

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

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

Verl, 09.11.2022

Ort / Datum
Place / Date


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

Abb. 42: EL2911 – EG-Konformitätserklärung

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

B. Mahrenholz

Bruce Mahrenholz, Director North American Certification Program
UL LLC

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Abb. 43: EL2911 – UL-Zertifikat, Seite 5

3.8 EL2912

Auf den folgenden Seiten erhalten Sie eine Übersicht der aktuellen Zertifikate der TwinSAFE-Komponente EL2912.

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證書 ◆ CERTIFICADO ◆ CERTIFICAT




Product Service

CERTIFICATE

No. Z10 062386 0062 Rev. 01

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

Certification Mark:



Product: Safety components
Model(s): EL2912

Parameters:

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

Tested according to:

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

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

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

Date, 2022-11-04


 (Peter Weiß)

Page 1 of 1
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Abb. 44: EL2912 – Z10 „Functional Safety“-Zertifikat



Product Service

EC-Type Examination Certificate

No. M6A 062386 0063 Rev. 01

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

Product: Safety components
Model(s): EL2912

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

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

Test report no.: BV99690C

Valid until: 2027-11-03

Date, 2022-11-04

(Peter Weiß)


Page 1 of 1

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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Abb. 45: EL2912 – M6A EG-Baumusterprüfbescheinigung gemäß der Richtlinie 2006/42/EG

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




Industrie Service


EU-BAUMUSTERPRÜFBESCHEINIGUNG EU-TYPE EXAMINATION CERTIFICATE

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

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



Achim Janocha
Notifizierte Stelle LCC



TÜV®

Abb. 46: EL2912 – EU-ESD EU-Baumusterprüfbescheinigung gemäß der Richtlinie 2014/33/EU

BECKHOFF New Automation TechnologyOriginalerklärung
Original declaration**EG-Konformitätserklärung**
EC Declaration of ConformityNummer: 2020063EL2912-3, Datum: 20.12.2022
Number, Date

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

erklärt, dass das Produkt
declares that the product
TwinSAFE EL2912
TwinSAFE-EtherCAT-Klemme mit 2 sicheren Ausgängen, 24V DC
TwinSAFE EtherCAT terminal with 2 safe outputs, 24V DC

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

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

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

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

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

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

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

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

Verl, 22.12.2022
Ort / Datum
Place / Date


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

Abb. 47: EL2912 – EG-Konformitätserklärung

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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Abb. 48: EL2912 – UL-Zertifikat, Seite 5

3.9 EL6900

Auf den nächsten Seiten erhalten Sie eine Übersicht der aktuellen Zertifikate der TwinSAFE-Komponente EL6900.

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證書 ◆ CERTIFICADO ◆ CERTIFIKAT ◆ CERTIFICATE		 Product Service	
	<h1 style="margin: 0;">CERTIFICATE</h1> <p style="margin: 0;">No. Z10 062386 0044 Rev. 01</p>		
	Holder of Certificate:	Beckhoff Automation GmbH & Co. KG Hülshorstweg 20 33415 Verl GERMANY	
	Certification Mark:		
	Product:	Safety components	
	Model(s):	EL6900	
	Parameters:	Supply voltage: 24VDC (-15%...+20%) Power dissipation: 2W Protection class: IP20 with "TwinSAFE Verifier" or "CODESYS Safety for EtherCAT Safety Module". Note: "CODESYS Safety for EtherCAT Safety Module" is developed in accordance with EN 61508:2010.	
	Tested according to:	2006/42/EC EN 61508-1:2010 (SIL1-3) EN 61508-2:2010 (SIL1-3) EN 61508-3:2010 (SIL1-3) EN ISO 13849-1:2015 (Cat 4, PL e) EN 13243:2015 DIN EN 61000-6-2:2006 DIN EN 61000-6-4:2007	
	<p>The product was tested on a voluntary basis and complies with the essential requirements. The certification mark shown above can be affixed on the product. It is not permitted to alter the certification mark in any way. In addition the certification holder must not transfer the certificate to third parties. This certificate is valid until the listed date, unless it is cancelled earlier. All applicable requirements of the testing and certification regulations of TÜV SÜD Group have to be complied. For details see: www.tuvsud.com/ps-cert</p>		
	Test report no.:	BV100963C	
Valid until:	2028-05-31		
Date,	2023-06-02		
	 (Christian Dimeier)		
Page 1 of 1 TÜV SÜD Product Service GmbH • Certification Body • Ridlerstraße 65 • 80339 Munich • Germany			
			

Abb. 49: EL6900 – Z10 „Functional Safety“-Zertifikat

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ CERTIFICADO ◆ CERTIFICAT



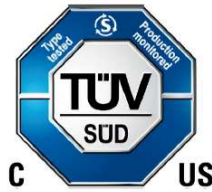
America

CERTIFICATE

No. U8V 062386 0085 Rev. 00

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

Certification Mark:



Product:

Programmable Controller

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

Test report no.: 713197340

Date, 2021-05-11

Susanne Dormann
 (Susanne Dormann)

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Abb. 50: EL6900 – U8V NRTL-Zertifikat, Seite 1



America

CERTIFICATE

No. U8V 062386 0085 Rev. 00

Model(s): EL1904
EL2904
EL6900

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

Parameters:

EL1904
Rated voltage: 24 V
Rated frequency: dc
Rated current: 10 A current load on Bus Coupler
power consumption max 200 mA
Environmental Conditions: 55°C, IP20

EL2904
Rated voltage: 24 V
Rated frequency: dc
Rated current: 10 A current load on Bus Coupler
power consumption max 188 mA
Environmental Conditions: 55°C, IP20
Outputs: 4 outputs, 24 Vdc, 0.5 A each output

EL6900
Rated voltage: 24 V
Rated frequency: dc
Rated current: 10 A current load on Bus Coupler
power consumption max 221 mA
Environmental Conditions: 55°C, IP20

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

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

Page 2 of 2

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Abb. 51: EL6900 – U8V NRTL-Zertifikat, Seite 2

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證書 ◆ CERTIFICADO ◆ CERTIFICAT



Product Service

EC-Type Examination Certificate

No. M6A 062386 0093 Rev. 00

Holder of Certificate:	Beckhoff Automation GmbH & Co. KG Hülshorstweg 20 33415 Verl GERMANY
Product:	Safety components
Model(s):	EL6900
Parameters:	Supply voltage: 24VDC (-15%...+20%) Power dissipation: 2W Protection class: IP20 with "TwinSAFE Verifier" or "CODESYS Safety for EtherCAT Safety Module". Note: "CODESYS Safety for EtherCAT Safety Module" is developed in accordance with IEC EN 61508:2010.

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

Test report no.:	BV100963C
Valid until:	2028-06-13
Date,	2023-06-16



(Peter Weiß)

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Abb. 52: EL6900 – M6A EG-Baumusterprüfbescheinigung

BECKHOFF New Automation TechnologyOriginalerklärung
Original declaration**EG-Konformitätserklärung**
EC Declaration of ConformityNummer: 2017043EL6900-3, Datum: 25.07.2023
Number, Date

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

erklärt, dass das Produkt
declares that the product
TwinSAFE EL6900
TwinSAFE Logic
TwinSAFE logic

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

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

Die Konformität mit den Bestimmungen der genannten Richtlinien wird durch Einhaltung der folgenden Normen nachgewiesen:

The conformity with the listed directives is proved by compliance with the following standards:

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

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

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

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

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

Verl, 27.7.2023

Ort / Datum
Place / Date


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

Abb. 53: EL6900 – EG-Konformitätserklärung

CERTIFICATE OF COMPLIANCE

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

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



Bruce Mahrenholz, Director North American Certification Program
 UL LLC



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Abb. 54: EL6900 – UL-Zertifikat, Seite 3



CERTIFICATE

(1) Type Examination

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

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

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

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

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

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

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

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

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

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

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

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

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

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



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

Date of certification: 9 July 2020

DEKRA Certification B.V.



R. Schuller
Certification Manager

Page 1/3

° Integral publication of this certificate and adjoining reports is allowed. This Certificate may only be reproduced in its entirety and without any change.

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

Abb. 55: Typ EL – ATEX-Zertifikat

3.10 EL6910

Auf den folgenden Seiten erhalten Sie eine Übersicht der aktuellen Zertifikate der TwinSAFE-Komponente EL6910.

ZERTIFIKAT ◆ CERTIFICATE ◆ 認 證 證 書 ◆ CERTIFICADO ◆ CERTIFICAT




Product Service

CERTIFICATE

No. Z10 062386 0034 Rev. 01

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

Certification Mark:



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

Parameters:

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

Tested according to:

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

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

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

Date, 2022-12-12


 (Peter Weiß)

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



Abb. 56: EL6910 – Z10 „Functional Safety“-Zertifikat



Product Service

EC-Type Examination Certificate

No. M6A 062386 0043 Rev. 01

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

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

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

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

Test report no.: **BV99767C**

Valid until: 2027-12-08

Date, 2022-12-12

Peter G. Weiß
 (Peter Weiß)

Page 1 of 1


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

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TUV®

Abb. 57: EL6910 – M6A EG-Baumusterprüfbescheinigung gemäß der Richtlinie 2006/42/EC


ZERTIFIKAT ◆ CERTIFICATE ◆ 認証証書 ◆ CERTIFICADO ◆ CERTIFICAT



 Industrie Service

EU-BAUMUSTERPRÜFBESCHEINIGUNG EU-TYPE EXAMINATION CERTIFICATE

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

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


 Achim Janocha
 Notifizierte Stelle LCC






Abb. 58: EL6910 – EU-ESD EU-Baumusterprüfbescheinigung gemäß der Richtlinie 2014/33/EU

BECKHOFF New Automation TechnologyOriginalerklärung
Original declaration**EG-Konformitätserklärung**

EC Declaration of Conformity

Nummer: 2017043EL6910-3, Datum: 19.12.2022

Number, Date

Hersteller
Manufacturer

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

erklärt, dass das Produkt
declares that the product

TwinSAFE EL6910
TwinSAFE Logic
TwinSAFE logic

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

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

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

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

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

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

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

Bevollmächtigter
Authorised person

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

Verl, 19.12.2022

Ort / Datum
Place / Date


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

Abb. 59: EL6910 – EG-Konformitätserklärung

CERTIFICATE OF COMPLIANCE

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

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



Bruce Mahrenholz, Director North American Certification Program
 UL LLC




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Abb. 60: EL6910 – UL-Zertifikat, Seite 3

3.11 EL6930

Auf den folgenden Seiten erhalten Sie eine Übersicht der aktuellen Zertifikate der TwinSAFE-Komponente EL6930.




ZERTIFIKAT ◆ CERTIFICATE ◆ 認証証書 ◆ 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:	<table style="width: 100%; border: none;"> <tr> <td style="width: 60%;">Supply voltage:</td> <td>24VDC (-15%...+20%)</td> </tr> <tr> <td>Power dissipation:</td> <td>2W</td> </tr> <tr> <td>Protection class:</td> <td>IP20</td> </tr> </table> <p>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.</p>	Supply voltage:	24VDC (-15%...+20%)	Power dissipation:	2W	Protection class:	IP20
Supply voltage:	24VDC (-15%...+20%)						
Power dissipation:	2W						
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 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						
<p>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.</p>							
Test report no.:	BV82168T						
Valid until:	2022-10-15						
Date, 2017-10-16	 (Günter Grell)						
Page 1 of 1							

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




Abb. 61: EL6930 – Z10 „Functional Safety“-Zertifikat

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

A1 / 04.11



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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Abb. 62: EL6930 – M6A EG-Baumusterprüfbescheinigung

BECKHOFF New Automation TechnologyOriginalerklärung
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-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 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

Abb. 63: EL6930 – EG-Konformitätserklärung

CERTIFICATE OF COMPLIANCE

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

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



Bruce Mahrenholz, Director North American Certification Program
 UL LLC



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Abb. 64: EL6930 – UL-Zertifikat, Seite 3

3.12 EP1908

Auf den folgenden Seiten erhalten Sie eine Übersicht der aktuellen Zertifikate der TwinSAFE-Komponente EP1908.

ZERTIFIKAT ◆ CERTIFICATE ◆ 認証証書 ◆ CERTIFICADO ◆ СЕРТИФИКАТ ◆ CERTIFICAT	 Product Service						
	<h1>CERTIFICATE</h1> <p>No. Z10 17 10 62386 046</p>						
	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: <table border="0" style="width: 100%;"> <tr> <td style="width: 60%;">Supply voltage:</td> <td>24VDC (-15%/+20%)</td> </tr> <tr> <td>Power dissipation:</td> <td>3W</td> </tr> <tr> <td>Protection class:</td> <td>IP65, IP66, IP67</td> </tr> </table>	Supply voltage:	24VDC (-15%/+20%)	Power dissipation:	3W	Protection class:	IP65, IP66, IP67
	Supply voltage:	24VDC (-15%/+20%)					
	Power dissipation:	3W					
Protection class:	IP65, IP66, IP67						
Tested according to: <table border="0" style="width: 100%;"> <tr> <td>2006/42/EC</td> </tr> <tr> <td>EN 61508-1:2010 (SIL1-3)</td> </tr> <tr> <td>EN 61508-2:2010 (SIL1-3)</td> </tr> <tr> <td>EN 61508-3:2010 (SIL1-3)</td> </tr> <tr> <td>EN ISO 13849-1:2015 (Cat 4, PL e)</td> </tr> </table>	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)		
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)							
<p>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.</p>							
Test report no.: BV84305T							
Valid until: 2022-10-19							
Date, 2017-10-20	 (Günter Greil)						
Page 1 of 1							
TÜV SÜD Product Service GmbH · Zertifizierstelle · Ridlerstraße 65 · 80339 München · Germany							
							

Abb. 65: EP1908 – Z10 „Functional Safety“-Zertifikat

ZERTIFIKAT ◆ CERTIFICATE ◆ 認証証書 ◆ 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



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.

Page 1 of 1

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



A1 / 04-11

Abb. 66: EP1908 – M6A EG-Baumusterprüfbescheinigung

BECKHOFF New Automation TechnologyOriginalerklärung
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-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 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

Abb. 67: EP1908 – EG-Konformitätserklärung

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/>



Abb. 68: EP1xxx – UL-Zertifikat, Seite 2

3.13 EP1918

Auf den folgenden Seiten erhalten Sie eine Übersicht der aktuellen Zertifikate der TwinSAFE-Komponente EP1918.

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ CERTIFICADO ◆ CERTIFICAT		 Product Service	
	<h1 style="margin: 0;">CERTIFICATE</h1> <p style="margin: 0;">No. Z10 062386 0075 Rev. 01</p>		
	Holder of Certificate:	Beckhoff Automation GmbH & Co. KG Hülshorstweg 20 33415 Verl GERMANY	
	Certification Mark:		
	Product:	Safety components	
	Model(s):	EP1918	
	Parameters:	Supply voltage: 24VDC (-15%/+20%) Ambient temperature: -25°C...+60°C Protection class: IP67	
	Tested according to:	2006/42/EC EN 61508-1:2010 (SIL1-3) EN 61508-2:2010 (SIL1-3) EN 61508-3:2010 (SIL1-3) EN 62061:2021 (max. SIL 3) EN ISO 13849-1:2015 (Cat 4, PL e)	
	<p style="font-size: small;">The product was tested on a voluntary basis and complies with the essential requirements. The certification mark shown above can be affixed on the product. It is not permitted to alter the certification mark in any way. In addition the certification holder must not transfer the certificate to third parties. This certificate is valid until the listed date, unless it is cancelled earlier. All applicable requirements of the testing and certification regulations of TÜV SÜD Group have to be complied. For details see: www.tuvsud.com/ps-cert</p>		
	Test report no.:	BV99693C	
Valid until:	2027-11-02		
Date,	2022-11-03		
 (Peter Weiß)			
Page 1 of 1 TÜV SÜD Product Service GmbH • Certification Body • Ridlerstraße 65 • 80339 Munich • Germany			

Abb. 69: EP1918 – Z10 „Functional Safety“-Zertifikat

AA / 07.17

TÜV SÜD TÜV SÜD TÜV SÜD TÜV SÜD TÜV SÜD TÜV SÜD TÜV SÜD TÜV SÜD TÜV SÜD TÜV SÜD TÜV SÜD TÜV SÜD TÜV SÜD TÜV SÜD
 ZERTIFIKAT ♦ CERTIFICATE ♦ 証書
 CERTIFICADO ♦ CERTIFIKAT ♦ CERTIFICATE





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)

Page 1 of 2
TÜV SÜD America Inc. • 10 Centennial Drive • Peabody • MA 01960 • USA



Abb. 70: EP1918 – U8V NRTL-Zertifikat, Seite 1



ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ CERTIFICADO ◆ CERTIFICAT	
 America	
<h1>CERTIFICATE</h1> <h2>No. U8V 062386 0071 Rev. 00</h2>	
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:	
	<ul style="list-style-type: none">- 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.
Page 2 of 2 TÜV SÜD America Inc. • 10 Centennial Drive • Peabody • MA 01960 • USA	
	

Abb. 71: EP1918 – U8V NRTL-Zertifikat, Seite 2

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證書 ◆ CERTIFICADO ◆ CERTIFICAT



Product Service

EC-Type Examination Certificate

No. M6A 062386 0076 Rev. 01

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

Product: **Safety components**

Model(s): **EP1918**

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

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

Test report no.: BV99693C

Valid until: 2027-11-02

Date, 2022-11-03

(Peter Weiß)

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



Abb. 72: EP1918 – M6A EG-Baumusterprüfbescheinigung

BECKHOFF New Automation Technology

Originalerklärung
Original declaration

EG-Konformitätserklärung EC Declaration of Conformity

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

Hersteller
Manufacturer: **Beckhoff Automation GmbH & Co. KG**
Hülshorstweg 20, 33415 Verl, Germany

erklärt, dass das Produkt
declares that the product: **TwinSAFE EP1918**
TwinSAFE-EtherCAT-Box mit 8 sicheren Eingängen, 24V DC
TwinSAFE-EtherCAT-Box with 8 safe inputs, 24V DC

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

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

Die Konformität mit den Bestimmungen der genannten Richtlinien wird durch Einhaltung der folgenden Normen nachgewiesen:

The conformity with the listed directives is proved by compliance with the following standards:

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

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

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

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

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

Verl, 09.11.2022

Ort / Datum
Place / Date


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

Abb. 73: EP1918 – EG-Konformitätserklärung

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

Abb. 74: EP1918 – UL-Zertifikat

3.14 EP1957

Auf den folgenden Seiten erhalten Sie eine Übersicht der aktuellen Zertifikate der TwinSAFE-Komponente EP1957.

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ CERTIFICADO ◆ CERTIFICAT		 Product Service	
	<h1 style="margin: 0;">CERTIFICATE</h1> <p style="margin: 0;">No. Z10 062386 0057 Rev. 01</p>		
	Holder of Certificate:	Beckhoff Automation GmbH & Co. KG Hülshorstweg 20 33415 Verl GERMANY	
	Certification Mark:		
	Product:	Safety components	
	Model(s):	EP1957	
	Parameters:	Supply voltage: 24VDC (-15%/+20%) Ambient temperature: -25°C...+60°C Protection class: IP67	
	Tested according to:	2006/42/EC EN 61508-1:2010 (SIL1-3) EN 61508-2:2010 (SIL1-3) EN 61508-3:2010 (SIL1-3) EN 62061:2021 (max. SIL 3) EN ISO 13849-1:2015 (Cat 4, PL e)	
	<p style="font-size: small;">The product was tested on a voluntary basis and complies with the essential requirements. The certification mark shown above can be affixed on the product. It is not permitted to alter the certification mark in any way. In addition the certification holder must not transfer the certificate to third parties. This certificate is valid until the listed date, unless it is cancelled earlier. All applicable requirements of the testing and certification regulations of TÜV SÜD Group have to be complied. For details see: www.tuvsud.com/ps-cert</p>		
	Test report no.: Valid until: Date,	BV99709C 2027-11-08 2022-11-10	
 (Peter Weiß)			
Page 1 of 1 TÜV SÜD Product Service GmbH • Certification Body • Ridlerstraße 65 • 80339 Munich • Germany			

Abb. 75: EP1957 – Z10 „Functional Safety“-Zertifikat

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證書 ◆ CERTIFICADO ◆ CERTIFICAT



Product Service

EC-Type Examination Certificate

No. M6A 062386 0058 Rev. 01

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

Product: **Safety components**

Model(s): **EP1957**

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

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

Test report no.: BV99709C

Valid until: 2027-11-08

Date, 2022-11-10

(Peter Weiß)

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



Abb. 76: EP1957 – M6A EG-Baumusterprüfbescheinigung

BECKHOFF New Automation TechnologyOriginalerklärung
Original declaration**EG-Konformitätserklärung**
EC Declaration of ConformityNummer: 20180058EP1957-2, Datum: 16.11.2022
Number, Date

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

erklärt, dass das Produkt
declares that the product **TwinSAFE EP1957**
TwinSAFE-EtherCAT-Box mit 8 sicheren Ein- und 4 sicheren Ausgängen 24V DC
TwinSAFE-EtherCAT-Box with 8 safe inputs and 4 safe outputs, 24V DC

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

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

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

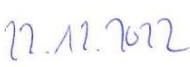
EN ISO 13849-1:2015 EN IEC 63000:2018 EN 61000-6-2:2005
EN 62061:2005/A2:2015 EN 61000-6-4:2007 EN 61131-2:2007

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

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

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

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

Verl, 


Ort / Datum
Place / Date **Dipl.-Phys. Hans Beckhoff, Geschäftsführer**
Dipl.-Phys. Hans Beckhoff, CEO 

Abb. 77: EP1957 – EG-Konformitätserklärung

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.

B. Mahrenholz
 Bruce Mahrenholz, Director North American Certification Program
 UL LLC



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Abb. 78: EP1xxx – UL-Zertifikat, Seite 2

3.15 EP2918

Auf den folgenden Seiten erhalten Sie eine Übersicht der aktuellen Zertifikate der TwinSAFE-Komponente EP2918.

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證書 ◆ CERTIFICADO ◆ CERTIFICAT		 Product Service	
	<h1 style="margin: 0;">CERTIFICATE</h1> <p style="margin: 0;">No. Z10 062386 0067 Rev. 01</p>		
	Holder of Certificate:	Beckhoff Automation GmbH & Co. KG Hülshorstweg 20 33415 Verl GERMANY	
	Certification Mark:		
	Product:	Safety components	
	Model(s):	EP2918	
	Parameters:	Supply voltage: 24VDC (-15%/+20%) Ambient temperature: -25°C...+60°C Protection class: IP67	
	Tested according to:	2006/42/EC EN 61508-1:2010 (SIL1-3) EN 61508-2:2010 (SIL1-3) EN 61508-3:2010 (SIL1-3) EN 62061:2021 (max. SIL 3) EN ISO 13849-1:2015 (Cat 4, PL e)	
	<p style="font-size: small;">The product was tested on a voluntary basis and complies with the essential requirements. The certification mark shown above can be affixed on the product. It is not permitted to alter the certification mark in any way. In addition the certification holder must not transfer the certificate to third parties. This certificate is valid until the listed date, unless it is cancelled earlier. All applicable requirements of the testing and certification regulations of TÜV SÜD Group have to be complied. For details see: www.tuvsud.com/ps-cert</p>		
	Test report no.: Valid until: Date,	BV99698C 2027-11-08 2022-11-10	
 (Peter Weiß)			
Page 1 of 1 TÜV SÜD Product Service GmbH • Certification Body • Ridlerstraße 65 • 80339 Munich • Germany			

Abb. 79: EP2918 – Z10 „Functional Safety“-Zertifikat


ZERTIFIKAT ◆ CERTIFICATE ◆ 認證書 ◆ CERTIFICADO ◆ CERTIFICAT		 America	
		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:			
	<ul style="list-style-type: none">• 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.		
Page 2 of 2 TÜV SÜD America Inc. • 10 Centennial Drive • Peabody • MA 01960 • USA			

Abb. 81: EP2918 – U8V NRTL-Zertifikat, Seite 2

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證書 ◆ CERTIFICADO ◆ CERTIFICAT



Product Service

EC-Type Examination Certificate

No. M6A 062386 0068 Rev. 01

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

Product: **Safety components**

Model(s): **EP2918**

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

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

Test report no.: BV99698C

Valid until: 2027-11-08

Date, 2022-11-10

(Peter Weiß)

Page 1 of 1
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Abb. 82: EP2918 – M6A EG-Baumusterprüfbescheinigung

BECKHOFF New Automation TechnologyOriginalerklärung
Original declaration**EG-Konformitätserklärung**

EC Declaration of Conformity

Nummer: 20200068EP2918-2, Datum: 16.11.2022

Number, Date

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

erklärt, dass das Produkt TwinSAFE EP2918
declares that the product TwinSAFE-EtherCAT-Box mit 8 sicheren Ausgängen, 24V DC
 TwinSAFE-EtherCAT-Box with 8 safe outputs, 24V DC

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

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

Die Konformität mit den Bestimmungen der genannten Richtlinien wird durch Einhaltung der folgenden Normen nachgewiesen:

The conformity with the listed directives is proved by compliance with the following standards:

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

Die Übereinstimmung eines Baumusters des bezeichneten Produkts mit den EU-Richtlinien wurde bescheinigt von

The accordance of a production sample of the designated product with the EC directives is certified by

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

Verantwortlich für die Zusammenstellung der technischen Unterlagen

Responsible for the compilation of technical documentation

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

Verl, Ort / Datum
*Place / Date*Dipl.-Phys. Hans Beckhoff, Geschäftsführer
Dipl.-Phys. Hans Beckhoff, CEO

Abb. 83: EP2918 – EG-Konformitätserklärung

3.16 EK1914

Auf den folgenden Seiten erhalten Sie eine Übersicht der aktuellen Zertifikate der TwinSAFE-Komponente EK1914.

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




Product Service

CERTIFICATE

No. Z10 062386 0045 Rev. 01

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

Certification Mark:



Product: **Safety components**

Model(s): **EK1914**

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

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

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

Test report no.: BV85712T

Valid until: 2028-08-23

Date, 2023-08-25



(Guido Neumann)

Page 1 of 1
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Abb. 84: EK1914 – Z10 „Functional Safety“-Zertifikat


ZERTIFIKAT ◆ CERTIFICATE ◆ 認證書 ◆ CERTIFICADO ◆ CERTIFICAT	 Product Service
	<h2 style="margin: 0;">EC-Type Examination Certificate</h2> <p style="margin: 0;">No. M6A 062386 0040 Rev. 01</p>
	<p>Holder of Certificate: Beckhoff Automation GmbH & Co. KG Hülshorstweg 20 33415 Verl GERMANY</p>
	<p>Product: Safety components</p>
	<p>Model(s): EK1914</p>
	<p>Parameters: Supply voltage: 24VDC (-15%...+20%) Power dissipation: 1,7W Protection class: IP20</p>
	<p>This EC Type Examination Certificate is issued according to Article 12(3) b or 12(4) a of Council Directive 2006/42/EC relating to machinery. It confirms that the listed Annex-IV equipment complies with the principal protection requirements of the directive. It refers only to the sample submitted to TÜV SÜD Product Service GmbH for testing and certification. For details see: www.tuvsud.com/ps-cert</p>
	<p>Test report no.: BV85712T</p>
	<p>Valid until: 2028-08-23</p>
	<p>Date, 2023-08-25</p> <div style="text-align: center; margin-top: 20px;">  (Guido Neumann) </div>
<p>Page 1 of 1 TÜV SÜD Product Service GmbH is Notified Body according to Council Directive 2006/42/EC relating to machinery, notified by publication in the Official Journal of the EC with identification No.0123. TÜV SÜD Product Service GmbH • Certification Body • Ridlerstraße 65 • 80339 Munich • Germany</p>	
	

Abb. 85: EK1914 – M6A EG-Baumusterprüfbescheinigung

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-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 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

Abb. 86: EK1914 – EG-Konformitätserklärung

CERTIFICATE OF COMPLIANCE

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

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



Bruce Mahrenholz, Director North American Certification Program
UL LLC

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3.17 EK1960

Auf den folgenden Seiten erhalten Sie eine Übersicht der aktuellen Zertifikate der TwinSAFE-Komponente EK1960.

ZERTIFIKAT ◆ CERTIFICATE ◆ 認証証書 ◆ 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



(Christian Dirmeier)



Date, 2017-04-21

Page 1 of 1

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TÜV®

Abb. 88: EK1960 – Z10 „Functional Safety“-Zertifikat



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

Date, 2017-07-05 (Peter Weiss)



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Abb. 89: EK1960 – M6A EG-Baumusterprüfbescheinigung

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

Abb. 90: EK1960 – EG-Konformitätserklärung

CERTIFICATE OF COMPLIANCE

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

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

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

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

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

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



Bruce Mahrenholz, Director North American Certification Program
 UL LLC

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CERTIFICATE OF COMPLIANCE

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


Issued to: Beckhoff Automation GmbH & Co. KG
 Huelshorstweg 20
 33415 VERL GERMANY

This is to certify that representative samples of COMPONENT - PROGRAMMABLE CONTROLLERS
 See Addendum Page

Have been investigated by UL in accordance with the Standard(s) indicated on this Certificate.

Standard(s) for Safety: UL 508, Industrial Control Equipment
 CSA C22 No. 142, Process Control Equipment
Additional Information: See the UL Online Certifications Directory at www.ul.com/database for additional information

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

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

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

Look for the UL Certification Mark on the product.



Bruce Mahrenholz, Director North American Certification Program
 UL LLC

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Abb. 92: EK1960 – UR-Zertifikat, Seite 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

B. Mahrenholz
 Bruce Mahrenholz, Director North American Certification Program
 UL LLC



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Abb. 93: EK1960 – UR-Zertifikat, Seite 2

3.18 EJ6910

Auf den folgenden Seiten erhalten Sie eine Übersicht der aktuellen Zertifikate der TwinSAFE-Komponente EJ6910.

ZERTIFIKAT ◆ CERTIFICATE ◆ 認 證 證 書 ◆ CERTIFICADO ◆ CERTIFICAT




Product Service

CERTIFICATE

No. Z10 062386 0034 Rev. 01

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

Certification Mark:



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

Parameters:

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

Tested according to:

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

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

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

Date, 2022-12-12


 (Peter Weiß)

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



Abb. 94: EJ6910 – Z10 „Functional Safety“-Zertifikat



Product Service

EC-Type Examination Certificate

No. M6A 062386 0043 Rev. 01

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

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

Parameters:

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

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

Test report no.: **BV99767C**

Valid until: 2027-12-08

Date, 2022-12-12

(Peter Weiß)

Page 1 of 1

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TUV®

Abb. 95: EJ6910 – M6A EG-Baumusterprüfbescheinigung

BECKHOFF New Automation Technology

Originalerklärung
Original declaration

EG-Konformitätserklärung
EC Declaration of Conformity

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

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

erklärt, dass das Produkt TwinSAFE EJ6910
declares that the product TwinSAFE Logic
TwinSAFE logic

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

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

Die Konformität mit den Bestimmungen der genannten Richtlinien wird durch Einhaltung der folgenden Normen nachgewiesen:

The conformity with the listed directives is proved by compliance with the following standards:

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

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

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

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

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

Verl, 19.12.2022
Ort / Datum
Place / Date


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

Abb. 96: EJ6910 – EG-Konformitätserklärung

19.8.2019 PROGRAMMABLE CONTROLLERS - COMPONENT | UL Product iQ

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

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

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

EJ9001, EJ9400, EJ9404

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

EM8908-1001

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

Marking: Company name and model designation.

Last Updated on 2019-02-10

The appearance of a company's name or product in this database does not in itself assure that products so identified have been manufactured under UL's Follow-Up Service. Only those products bearing the UL Mark should be considered to be Certified and covered under UL's Follow-Up Service. Always look for the Mark on the product.

UL permits the reproduction of the material contained in the Online Certification Directory subject to the following conditions: 1. The Guide Information, Assemblies, Constructions, Designs, Systems, and/or Certifications (files) must be presented in their entirety and in a non-misleading manner, without any manipulation of the data (or drawings). 2. The statement "Reprinted from the Online Certifications Directory with permission from UL" must appear adjacent to the extracted material. In addition, the reprinted material must include a copyright notice in the following format: "© 2019 UL LLC"

Abb. 97: EJ1960 – US, Seite 2

19.8.2019 PROGRAMMABLE CONTROLLERS CERTIFIED FOR CANADA - COMPONENT | UL Product iQ

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

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

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

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

EJ9001, EJ9400, EJ9404

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

EM8908-1001

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

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



Last Updated on 2019-02-10

The appearance of a company's name or product in this database does not in itself assure that products so identified have been manufactured under UL's Follow-Up Service. Only those products bearing the UL Mark should be considered to be Certified and covered under UL's Follow-Up Service. Always look for the Mark on the product.

UL permits the reproduction of the material contained in the Online Certification Directory subject to the following conditions: 1. The Guide Information, Assemblies, Constructions, Designs, Systems, and/or Certifications (files) must be presented in their entirety and in a non-misleading manner, without any manipulation of the data (or drawings). 2. The statement "Reprinted from the Online Certifications Directory with permission from UL" must appear adjacent to the extracted material. In addition, the reprinted material must include a copyright notice in the following format: "© 2019 UL LLC"

Abb. 98: EJ1960 – C, Seite 1

3.19 EJ1914, EJ1918, EJ1957, EJ2914, EJ2918

Auf den folgenden Seiten erhalten Sie eine Übersicht der aktuellen Zertifikate der TwinSAFE-Komponenten EJ1914, EJ1918, EJ1957, EJ2914 und EJ2918 sowie gehäuseloser Varianten, wie zum Beispiel FB6901-1918.

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證書 ◆ CERTIFICADO ◆ CERTIFICAT		 Product Service
	<h1 style="margin: 0;">CERTIFICATE</h1> <p style="margin: 0;">No. Z10 062386 0037 Rev. 02</p>	
	<p>Holder of Certificate: Beckhoff Automation GmbH & Co. KG Hülshorstweg 20 33415 Verl GERMANY</p>	
	<p>Certification Mark:</p> <div style="text-align: center;">  </div>	
	<p>Product: Safety components EtherCAT Plugin Module</p>	
	<p>The product was tested on a voluntary basis and complies with the essential requirements. The certification mark shown above can be affixed on the product. It is not permitted to alter the certification mark in any way. In addition the certification holder must not transfer the certificate to third parties. This certificate is valid until the listed date, unless it is cancelled earlier. All applicable requirements of the Testing, Certification, Validation and Verification Regulations of TÜV SÜD Group have to be complied. For details see: www.tuvsud.com/ps-cert</p>	
	<p>Test report no.: BV99823C</p>	
	<p>Valid until: 2029-10-27</p>	
	<p>Date, 2024-10-29</p>	
	 (Thomas Kreten)	
Page 1 of 2 TÜV SÜD Product Service GmbH • Certification Body • Ridlerstraße 65 • 80339 Munich • Germany		

Abb. 99: EJx9xx und gehäuselose Varianten – Z10 „Functional Safety“-Zertifikat, Seite 1



ZERTIFIKAT ◆ CERTIFICATE ◆ 認證書 ◆ CERTIFICADO ◆ CERTIFICAT

CERTIFICATE

No. Z10 062386 0037 Rev. 02

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

Tested according to: EN ISO 13849-1:2023 (up to Cat. 4 PL e)
 EN 61508-1:2010 (up to SIL 3)
 EN 61508-2:2010 (up to SIL 3)
 EN 61508-3:2010 (up to SIL 3)
 EN IEC 62061:2021 (up to max SIL3)

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

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

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

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

(C) Product family
 9: TwinSAFE product

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

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

FB6901-1918
 variant of EJ1918 without housing

EJ1957-0001
 variant of EJ1957 without housing



Abb. 100: EJx9xx und gehäuselose Varianten – Z10 „Functional Safety“-Zertifikat, Seite 2

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ CERTIFICADO ◆ CERTIFICAT	 Product Service	
	<h2 style="margin: 0;">EC-Type Examination Certificate</h2> <p style="margin: 0;">No. M6A 062386 0042 Rev. 02</p>	
	<p>Holder of Certificate: Beckhoff Automation GmbH & Co. KG Hülshorstweg 20 33415 Verl GERMANY</p>	
	<p>Product: Safety components EtherCAT Plugin Module</p>	
	<p>This EC Type Examination Certificate is issued according to Article 12(3) b or 12(4) a of Council Directive 2006/42/EC relating to machinery. It confirms that the listed Annex-IV equipment complies with the principal protection requirements of the directive. It refers only to the sample submitted to TÜV SÜD Product Service GmbH for testing and certification. For details see: www.tuvsud.com/ps-cert</p>	
	<p>Test report no.: BV99823C</p>	
	<p>Valid until: 2029-10-27</p>	
	<p>Date, 2024-10-29</p>	
	 (Thomas Kreten)	
	<p>Page 1 of 2 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. TÜV SÜD Product Service GmbH • Certification Body • Ridlerstraße 65 • 80339 Munich • Germany</p>	

Abb. 101: EJx9xx – M6A EG-Baumusterprüfbescheinigung, Seite 1



Product Service

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ CERTIFICADO ◆ CERTIFICAT

EC-Type Examination Certificate

No. M6A 062386 0042 Rev. 02

Model(s):	<p>EJx9xx and Variants w/o housing</p> <p>EJ x 9 x x (A) (B) (C) (D) (E)</p> <p>(A) Series EJ: EtherCAT plug-in module / TwinSAFE I/O</p> <p>(B) I/O 1: digital input 2: digital output</p> <p>(C) Product family 9: TwinSAFE product</p> <p>(D) Generation 1: second device generation 5: combi module</p> <p>(E) Channel 4: 4-channel 7: 8-input / 4-output 8: 8-channel</p> <p>FB6901-1918 variant of EJ1918 without housing</p> <p>EJ1957-0001 variant of EJ1957 without housing</p>						
Parameters:	<table border="0"> <tr> <td>Safety integrity level:</td> <td>up to SIL 3</td> </tr> <tr> <td>Category:</td> <td>Cal 4</td> </tr> <tr> <td>Performance level:</td> <td>Pl e</td> </tr> </table>	Safety integrity level:	up to SIL 3	Category:	Cal 4	Performance level:	Pl e
Safety integrity level:	up to SIL 3						
Category:	Cal 4						
Performance level:	Pl e						

Page 2 of 2
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Abb. 102: EJx9xx – M6A EG-Baumusterprüfbescheinigung, Seite 2

BECKHOFF New Automation TechnologyOriginalerklärung
Original declaration**EG-Konformitätserklärung**

EC Declaration of Conformity

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

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

erklärt, dass das Produkt
declares that the product
TwinSAFE EJx9xx
TwinSAFE-EJ-Module mit digitalen fehlersicheren Ein- und Ausgängen
TwinSAFE EJ Modules with digital fail-safe inputs and outputs

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

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

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

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

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

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

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

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

Verl, 31.1.2023
Ort / Datum
Place / Date


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

Abb. 103: EJx9xx – EG-Konformitätserklärung

19.8.2019

PROGRAMMABLE CONTROLLERS - COMPONENT | UL Product iQ

UL Product iQ™



NRAQ2.E172151 – PROGRAMMABLE CONTROLLERS – COMPONENT

Programmable Controllers - Component

See General Information for Programmable Controllers - Component

BECKHOFF AUTOMATION GMBH & CO. KG
HUELSHORSTWEG 20
33415 VERL, GERMANY

E172151

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**

EPlyxxx, ERlyxxx 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

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

1/2

Abb. 104: EJx9xx – US, Seite 1

19.8.2019

PROGRAMMABLE CONTROLLERS CERTIFIED FOR CANADA - COMPONENT | UL Product iQ

UL Product iQ™



NRAQ8.E172151 - PROGRAMMABLE CONTROLLERS CERTIFIED FOR CANADA - COMPONENT

Programmable Controllers Certified for Canada - Component

See General Information for Programmable Controllers Certified for Canada - Component

BECKHOFF AUTOMATION GMBH & CO. KG
HUELSHORSTWEG 20
33415 VERL, GERMANY

E172151

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**

EPIxxx, ERlyxxx 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

<https://iq.ulprospector.com/en/profile?e=87401>

1/2

Abb. 105: EJx9xx – C, Seite 1

3.20 AMI8911

Auf den folgenden Seiten erhalten Sie eine Übersicht der aktuellen Zertifikate des Servoantriebs AMI8xxx mit integrierter TwinSAFE-Karte AMI8911.

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




Product Service

CERTIFICATE

No. Z10 062386 0086 Rev. 00

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

Certification Mark:



Product: **Safety components**

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

Test report no.:	BV97184T
Valid until:	2026-08-16

Date, 2021-08-27



(Peter Weiß)

Page 1 of 2
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Abb. 106: AMI8911 – Z10 „Functional Safety“-Zertifikat, Seite 1



Product Service

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證書 ◆ CERTIFICADO ◆ CERTIFICAT

CERTIFICATE

No. Z10 062386 0086 Rev. 00

Parameters: Supply voltage: logic 24VDC / motor 48VDC
Ambient temperature: +5°C ... +40°C

Tested according to: EN 61508-1:2010 (up to SIL 3)
EN 61508-2:2010 (up to SIL 3)
EN 61508-3:2010 (up to SIL 3)
IEC 62061:2021 (maximum SIL 3)
EN ISO 13849-1:2015 (up to Cat.4 PL e)
EN 61800-5-2:2017

Model(s): AMI8xxx with integrated AMI8911

Nomenclature of Product type AMI81uv-abcc-wxyz

AMI81uv-abcc-wxyz			
AMI8	Product line	AMI8	Integrated servo drives
1	Number of channels	1	1-channel servo axis
u	Flange code	2	flange code F2
v	Motor length	1	motor length 1
		2	motor length 2
		3	motor length 3
a	Feedback	3	single-turn absolute encoder, 17 bit resolution
		4	multi-turn absolute encoder, 17 bit resolution
b	TwinSAFE	0	without TwinSAFE
		1	TwinSAFE STO via FSoE
cc	Customer specific mechanical variant	00-99	customer specific variant
w	Shaft	0	smooth shaft
		1	shaft with groove and feather key according to DIN 6885
		2	shaft with IP 65 sealing ring and smooth shaft
		3	shaft with IP 65 sealing ring and shaft with groove and feather key according to DIN 6885
x	Winding code	F, J	winding code F, J
y	Communication interface	1	EtherCAT
z	Holding brake	0	without holding brake
		1	with holding brake

Page 2 of 2
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Abb. 107: AMI8911 – Z10 „Functional Safety“-Zertifikat, Seite 2

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證書 ◆ CERTIFICADO ◆ CERTIFICAT



Product Service

EC-Type Examination Certificate

No. M6A 062386 0087 Rev. 00

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

Product: **Safety components**

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

Test report no.: BV97184T

Valid until: 2026-08-25

Date, 2021-08-27

(Peter Weiß)

Page 1 of 2
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Abb. 108: AMI8911 – M6A EG-Baumusterprüfbescheinigung, Seite 1



Product Service

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證書 ◆ CERTIFICADO ◆ CERTIFICAT

EC-Type Examination Certificate

No. M6A 062386 0087 Rev. 00

Model(s): AMI8xxx with integrated AMI8911

Nomenclature of Product type AMI81uv-abcc-wxyz

AMI81uv-abcc-wxyz			
AMI8	Product line	AMI8	Integrated servo drives
1	Number of channels	1	1-channel servo axis
u	Flange code	2	flange code F2
v	Motor length	1	motor length 1
		2	motor length 2
		3	motor length 3
a	Feedback	3	single-turn absolute encoder, 17 bit resolution
		4	multi-turn absolute encoder, 17 bit resolution
b	TwinSAFE	0	without TwinSAFE
		1	TwinSAFE STO via FSoE
cc	Customer specific mechanical variant	00-99	customer specific variant
w	Shaft	0	smooth shaft
		1	shaft with groove and feather key according to DIN 6885
		2	shaft with IP 65 sealing ring and smooth shaft
		3	shaft with IP 65 sealing ring and shaft with groove and feather key according to DIN 6885
x	Winding code	F, J	winding code F, J
y	Communication interface	1	EtherCAT
z	Holding brake	0	without holding brake
		1	with holding brake

Parameters:

Supply voltage: logic 24VDC / motor 48VDC
 Ambient temperature: +5°C ... +40°C

Page 2 of 2

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TUV®

3.21 AMP8911

Auf den folgenden Seiten erhalten Sie eine Übersicht der aktuellen Zertifikate des Servoantriebs AMP8000 mit integrierter TwinSAFE-Karte AMP8911.

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證書 ◆ CERTIFICADO ◆ CERTIFIKAT




Product Service

CERTIFICATE

No. Z10 062386 0088 Rev. 00

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

Certification Mark:



Product: **Safety components**

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

Test report no.: **BV97628T**

Valid until: **2026-11-03**

Date, **2021-11-09**



(Günter Greil)

Page 1 of 3
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Abb. 110: AMP8911 – Z10 „Functional Safety“-Zertifikat, Seite 1



CERTIFICATE

No. Z10 062386 0088 Rev. 00

Parameters: Supply voltage: logic 24 Vdc / motor 0...848 Vdc
Ambient temperature: 0°C ... +40°C

Tested according to: IEC 61508-1:2010 (up to SIL3)
IEC 61508-2:2010 (up to SIL3)
IEC 61508-3:2010 (up to SIL3)
IEC 62061:2021 (maximum SIL 3)
EN ISO 13849-1:2015 (up to Cat.4 PL e)
EN 61800-5-2:2017

Model(s): AMP8000 Distributed servo drives

Nomenclature of Product type AMP8abc-defg-hijk

AMP 8 a b c – d e f g – h i j k			
AMP8	Product line	AMP8	distributed servo drives
a	Variant	0	standard
		5	increased mass moment
b	Flange code	3	3 = 72mm
		4	4 = 87mm
		5	5 = 104mm
c	Length	1	overall length 1
		2	overall length 2
		3	overall length 3
		4	overall length 4
d	Winding code	A...Z	winding code A...Z
		S	special winding
e	Shaft	0	smooth shaft
		1	keyway
		2	shaft with radial shaft-sealing ring IP 65 and smooth shaft
		3	shaft with radial shaft-sealing ring IP 65, groove, feather key
		4	shaft with radial shaft-sealing ring IP 65, smooth shaft and sealing air connection
5	shaft with radial shaft-sealing ring IP 65, groove, feather key and sealing air connection		

Abb. 111: AMP8911 – Z10 „Functional Safety“-Zertifikat, Seite 2



Product Service

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ CERTIFICADO ◆ CERTIFICAT

CERTIFICATE

No. Z10 062386 0088 Rev. 00

AMP 8 a b c - d e f g - h i j k			
f	Feedback system + Safety version	1	single-turn absolute encoder, 24 bit resolution, STO, SS1
		2	multi-turn absolute encoder, 24 bit resolution, STO, SS1
		3	single-turn absolute encoder, 24 bit resolution, Safe Motion
		4	multi-turn absolute encoder, 24 bit resolution, Safe Motion
g	Brake	0	without holding brake
		1	with holding brake
h, i, j, k	Variant	x	Variants without any influence on the safety technology



Abb. 112: AMP8911 – Z10 „Functional Safety“-Zertifikat, Seite 3



Product Service

EC-Type Examination Certificate

No. M6A 062386 0089 Rev. 00

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

Product: **Safety components**

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

Test report no.: BV97628T

Valid until: 2026-12-02

Date, 2021-12-03

(Guido Neumann)

Page 1 of 3

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Abb. 113: AMP8911 – M6A EG-Baumusterprüfbescheinigung, Seite 1



ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ CERTIFICADO ◆ CERTIFICAT

EC-Type Examination Certificate

No. M6A 062386 0089 Rev. 00

Model(s): AMP8000 Distributed servo drives

Nomenclature of Product type AMP8abc-defg-hijk

AMP 8 a b c - d e f g - h i j k			
AMP8	Product line	AMP8	distributed servo drives
a	Variant	0	standard
		5	increased mass moment
b	Flange code	3	3 = 72mm
		4	4 = 87mm
		5	5 = 104mm
c	Length	1	overall length 1
		2	overall length 2
		3	overall length 3
		4	overall length 4
d	Winding code	A...Z	winding code A...Z
		S	special winding
e	Shaft	0	smooth shaft
		1	keyway
		2	shaft with radial shaft-sealing ring IP 65 and smooth shaft
		3	shaft with radial shaft-sealing ring IP 65, groove, feather key
		4	shaft with radial shaft-sealing ring IP 65, smooth shaft and sealing air connection
5	shaft with radial shaft-sealing ring IP 65, groove, feather key and sealing air connection		

Page 2 of 3
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Abb. 114: AMP8911 – M6A EG-Baumusterprüfbescheinigung, Seite 2



Product Service

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證書 ◆ CERTIFICADO ◆ CERTIFICAT

EC-Type Examination Certificate

No. M6A 062386 0089 Rev. 00

AMP 8 a b c – d e f g – h i j k			
f	Feedback system + Safety version	1	single-turn absolute encoder, 24 bit resolution, STO, SS1
		2	multi-turn absolute encoder, 24 bit resolution, STO, SS1
		3	single-turn absolute encoder, 24 bit resolution, Safe Motion
		4	multi-turn absolute encoder, 24 bit resolution, Safe Motion
g	Brake	0	without holding brake
		1	with holding brake
h, i, j, k	Variant	x	Variants without any influence on the safety technology

Parameters:

Supply voltage: logic 24 Vdc / motor 0...848 Vdc
 Ambient temperature: 0°C ... +40°C

Page 3 of 3
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Abb. 115: AMP8911 – M6A EG-Baumusterprüfbescheinigung, Seite 3

3.22 AX5801

Auf den folgenden Seiten erhalten Sie eine Übersicht der aktuellen Zertifikate der TwinSAFE-Servoverstärker AX5801.



Abb. 116: AX5801 – Z10 „Functional Safety“-Zertifikat

ZERTIFIKAT ♦ CERTIFICATE ♦ 認證書 ♦ CERTIFICADO ♦ CERTIFICAT	 Product Service				
	<h2>EC-Type Examination Certificate</h2> <p>No. M6A 062386 0097 Rev. 00</p>				
	Holder of Certificate: Beckhoff Automation GmbH & Co. KG Hülshorstweg 20 33415 Verl GERMANY				
	Product: Safety components				
	Model(s): Safety Card AX5801 for use in AX5000-Series				
	Parameters: <table border="0" style="margin-left: 20px;"> <tr> <td>Supply voltage:</td> <td>24VDC (-15%/+20%)</td> </tr> <tr> <td>Operating temperature:</td> <td>0°C...+55°C</td> </tr> </table>	Supply voltage:	24VDC (-15%/+20%)	Operating temperature:	0°C...+55°C
	Supply voltage:	24VDC (-15%/+20%)			
	Operating temperature:	0°C...+55°C			
	<p>This EC Type Examination Certificate is issued according to Article 12(3) b or 12(4) a of Council Directive 2006/42/EC relating to machinery. It confirms that the listed Annex-IV equipment complies with the principal protection requirements of the directive. It refers only to the sample submitted to TÜV SÜD Product Service GmbH for testing and certification. For details see: www.tuvsud.com/ps-cert</p>				
	Test report no.: BV86472T				
Valid until: 2025-03-23					
Date, 2023-09-06					
 (Christian Dirmeier)					
Page 1 of 1 TÜV SÜD Product Service GmbH is Notified Body according to Council Directive 2006/42/EC relating to machinery, notified by publication in the Official Journal of the EC with identification No.0123.					
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Abb. 117: AX5801 - M6A EG-Baumusterprüfbescheinigung

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

Drehzahlveränderbare elektrische Antriebe - EMV-Anforderungen einschließlich spezieller Prüfverfahren

Product Standard: EN 61800-3:2004+A1:2012

Adjustable speed electrical power drive systems – EMC requirements and specific test methods

Produktnorm: EN 61800-5-1:2007

Elektrische Leistungsantriebssysteme mit einstellbarer Drehzahl – Anforderungen an die Sicherheit

Product Standard: EN 61800-5-1:2007

Adjustable speed electrical power drive systems – Safety requirements – Electrical, thermal and energy

RoHS: EN 50581:2012

Technische Dokumentation zur Regelung von Elektro- und Elektronikgeräten hinsichtlich der Beschränkung gefährlicher Stoffe

RoHS: EN 50581:2012

Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances

Verl, den / the 17.07.2017

Unterschrift, signature
Name, name
Funktion, function



Hans Beckhoff
Geschäftsführer, Executive Director

Abb. 118: AX-Servoverstärker – EG-Konformitätserklärung, Seite 1

BECKHOFF New Automation Technology**EU-Konformitätserklärung**
*EU declaration of conformity***Servoverstärker, Servo drives**

Bestellnummer <i>order number</i>	Bezeichnung <i>designation</i>
AX20xx-xxxx-xxxx	Digital Kompakt Servoverstärker, <i>Digital Compact Servo Drive</i>
AX25xx-xxxx-xxxx	Digital Kompakt Servoverstärker, <i>Digital Compact Servo Drive</i>
AX5xxx-xxxx-xxxx	Digital Kompakt Servoverstärker, <i>Digital Compact Servo Drive</i>
AX8xxx-xxxx-xxxx	Digital Kompakt Servoverstärker, <i>Digital Compact Servo Drive</i>

Abb. 119: AX-Servoverstärker – EG-Konformitätserklärung, Seite 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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Abb. 120: AX5xxx – UL-Zertifikat, Seite 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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3.23 AX5805, AX5806

Auf den folgenden Seiten erhalten Sie eine Übersicht der aktuellen Zertifikate der TwinSAFE-Servoverstärker AX5805 und AX5806.

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ CERTIFICADO ◆ CERTIFIKAT ◆ CERTIFICATE




Product Service

CERTIFICATE

No. Z10 062386 0098 Rev. 00

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

Certification Mark:



Product: **Safety components**

Model(s): **AX5805/5806 for use in AX5000-0000-0200-Series**

Parameters: Safety Functions:
 STO, SS1, SS2, SOS,
 SLS, SSM, SSR, SMS,
 SLP, SCA, SLI, SAR,
 SMA, SDI

Tested according to:

2006/42/EC
 EN ISO 13849-1:2015 (Cat.4, PL e)
 EN 61508-1:2010 (SIL 3)
 EN 61508-2:2010 (SIL 3)
 EN 61508-3:2010 (SIL 3)
 EN 62061:2021 (max. SIL 3)
 EN 61800-5-2:2017

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

Test report no.: BV101488C

Valid until: 2028-10-23

Date, 2023-10-26



(Guido Neumann)

Page 1 of 1
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Abb. 122: AX5805, AX5806 – Z10 „Functional Safety“-Zertifikat



Product Service

EC-Type Examination Certificate

No. M6A 062386 0101 Rev. 00

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

Product: **Safety components**

Model(s): **AX5805/5806 for use in AX5000-0000-0200-Series**

Parameters: Safety Functions:
STO, SS1, SS2, SOS,
SLS, SSM, SSR, SMS,
SLP, SCA, SLI, SAR,
SMA, SDI

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

Test report no.: BV101488C

Valid until: 2028-10-25

Date, 2023-10-26

(Guido Neumann)

Page 1 of 1

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Abb. 123: AX5805, AX5806 – M6A EG-Baumusterprüfbescheinigung

BECKHOFF New Automation Technology

Originalerklärung
Original declaration

EG-Konformitätserklärung
EC Declaration of Conformity

Nummer: 20230101AX5805/5806-1, Datum: 08.12.2023
Number, Date

Hersteller
Manufacturer

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

erklärt, dass das Produkt
declares that the product

TwinSAFE-Drive-Optionskarte AX5805/5806 für die Verwendung in der AX5000-000-0200-Serie
TwinSAFE drive option card AX5805/5806 for use in AX5000-0000-0200 series

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

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

Die Konformität mit dem Stand der Technik wird durch Einhaltung der folgenden Normen nachgewiesen:
The conformity with the state of the art is proved by compliance with the following standards:

EN ISO 13849-1:2015
EN 62061:2021

EN 61800-3:2018
EN 61800-5-2:2017

EN IEC 63000:2018

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

<u>Richtlinie</u>	<u>Benannte Stelle</u>	<u>Baumusterprüfbescheinigung</u>
<small>Directive</small>	<small>Notified Body</small>	<small>type examination certificate</small>
2006/42/EG	TÜV SÜD Product Service GmbH	M6A 062386 0101 Rev. 00
2006/42/EC	Ridlerstraße 65, 80339 München, Germany	2023-10-26

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

Bevollmächtigter
Authorised person

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

Verl, 12.12.2023



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

Ort / Datum
Place / Date

Abb. 124: AX5805, 5806 – EG-Konformitätserklärung

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

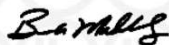
Have been investigated by UL in accordance with the Standard(s) indicated on this Certificate.

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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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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Abb. 126: AX5xxx – UL-Zertifikat, Seite 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.

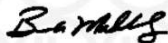
Have been investigated by UL in accordance with the Standard(s) indicated on this Certificate.

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

UL LLC

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Abb. 127: UL AX5160, AX5172 – UL-Zertifikat

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.

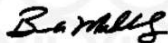
Have been investigated by UL in accordance with the Standard(s) indicated on this Certificate.

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

UL LLC

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Abb. 128: AX519x – UL-Zertifikat

3.24 AX8911

Auf den folgenden Seiten erhalten Sie eine Übersicht der aktuellen Zertifikate des Servoantriebs AX8000 mit integrierter TwinSAFE-Karte AX8911.

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證書 ◆ CERTIFICADO ◆ CERTIFIKAT ◆ CERTIFICATE		 Product Service	
	<h1>CERTIFICATE</h1> <p>No. Z10 062386 0064 Rev. 02</p>		
	Holder of Certificate:	Beckhoff Automation GmbH & Co. KG Hülshorstweg 20 33415 Verl GERMANY	
	Certification Mark:		
	Product:	Safety components	
	Model(s):	AX 8 Series	
	Parameters:	Supply voltage: 24VDC (-10%/+10%) Ambient temperature: 0°C ... +55°C	
		The report listed below is a mandatory part of certificate.	
	Tested according to:	IEC 61508-1:2010 (up to SIL3) IEC 61508-2:2010 (up to SIL3) IEC 61508-3:2010 (up to SIL3) IEC 62061:2021 (SIL 3) EN ISO 13849-1:2015 (up to Cat.4 PL e) IEC 61800-5-2:2016	
	<p>The product was tested on a voluntary basis and complies with the essential requirements. The certification mark shown above can be affixed on the product. It is not permitted to alter the certification mark in any way. In addition the certification holder must not transfer the certificate to third parties. This certificate is valid until the listed date, unless it is cancelled earlier. All applicable requirements of the testing and certification regulations of TÜV SÜD Group have to be complied. For details see: www.tuvsud.com/ps-cert</p>		
Test report no.:	BV99611C		
Valid until:	2027-12-06		
Date,	2022-12-07		
	 (Claudio Gregorio)		
Page 1 of 1 TÜV SÜD Product Service GmbH • Certification Body • Ridlerstraße 65 • 80339 Munich • Germany			
			

Abb. 129: AX8xxx-x1xx, AX8xxx-x2xx – Z10 „Functional Safety“-Zertifikat

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ CERTIFICADO ◆ CERTIFICAT



Product Service

EC-Type Examination Certificate

No. M6A 062386 0081 Rev. 01

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

Product: **Safety components**

Model(s): **AX 8 Series**

Parameters: Supply voltage: 24VDC (-10%/+10%)
 Ambient temperature: 0°C ... +55°C

The report listed below is a mandatory part of certificate.

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

Test report no.: BV99611C

Valid until: 2027-12-06

Date, 2022-12-07

(Claudio Gregorio)

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

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



Abb. 130: AX8xxx – M6A EG-Baumusterprüfbescheinigung

BECKHOFF New Automation Technology**EU-Konformitätserklärung, EU Declaration of Conformity**

Hersteller Beckhoff Automation GmbH & Co.KG
Manufacturer

Anschrift Hülshorstweg 20
Address 33415 Verl
Bundesrepublik Deutschland

Produktbezeichnung Servoverstärker (siehe Anhang)
Product description 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

**Drehzahlveränderbare elektrische Antriebe -
EMV-Anforderungen einschließlich spezieller
Prüfverfahren**

Product Standard: EN 61800-3:2004+A1:2012

*Adjustable speed electrical power drive systems –
EMC requirements and specific test methods*

Produktnorm: EN 61800-5-1:2007

**Elektrische Leistungsantriebssysteme mit einstellbarer
Drehzahl – Anforderungen an die Sicherheit**

Product Standard: EN 61800-5-1:2007

*Adjustable speed electrical power drive systems –
Safety requirements – Electrical, thermal and energy*

RoHS: EN 50581:2012

**Technische Dokumentation zur Regelung von Elektro- und
Elektronikgeräten hinsichtlich der Beschränkung gefährlicher Stoffe**

RoHS: EN 50581:2012

*Technical documentation for the assessment of electrical and electronic
products with respect to the restriction of hazardous substances*

Verl, den / the 17.07.2017

Unterschrift, *signature*
Name, *name*
Funktion, *function*

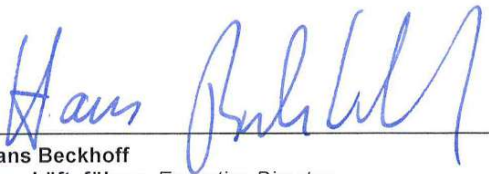

Hans Beckhoff
Geschäftsführer, *Executive Director*

Abb. 131: AX-Servoverstärker – EG-Konformitätserklärung, Seite 1

BECKHOFF New Automation Technology**EU-Konformitätserklärung**
*EU declaration of conformity***Servoverstärker, Servo drives**

Bestellnummer <i>order number</i>	Bezeichnung <i>designation</i>
AX20xx-xxxx-xxxx	Digital Kompakt Servoverstärker, <i>Digital Compact Servo Drive</i>
AX25xx-xxxx-xxxx	Digital Kompakt Servoverstärker, <i>Digital Compact Servo Drive</i>
AX5xxx-xxxx-xxxx	Digital Kompakt Servoverstärker, <i>Digital Compact Servo Drive</i>
AX8xxx-xxxx-xxxx	Digital Kompakt Servoverstärker, <i>Digital Compact Servo Drive</i>

Abb. 132: AX-Servoverstärker – EG-Konformitätserklärung, Seite 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

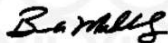
Have been investigated by UL in accordance with the Standard(s) indicated on this Certificate.

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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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.

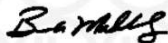
USL/CNL – Open type power conversion equipment system AX8000 consisting of:

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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3.25 ELM8911

Auf den folgenden Seiten erhalten Sie eine Übersicht der aktuellen Zertifikate der Servomotorklemme ELM72xx mit integrierter TwinSAFE-Karte ELM8911.

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ CERTIFICADO ◆ CERTIFICAT		 Product Service	
	<h1 style="margin: 0;">CERTIFICATE</h1> <p style="margin: 0;">No. Z10 062386 0099 Rev. 00</p>		
	Holder of Certificate:	Beckhoff Automation GmbH & Co. KG Hülshorstweg 20 33415 Verl GERMANY	
	Certification Mark:		
	Product:	Safety components	
	Model(s):	ELM72xx with safety card ELM8911	
	Parameters:	Supply voltage: logic 24VDC / motor 48VDC Ambient Temperature: 0°C...+55°C	
	Tested according to:	EN 61508-1:2010 (up to SIL 3) EN 61508-2:2010 (up to SIL 3) EN 61508-3:2010 (up to SIL 3) IEC 62061:2021 (maximum SIL 3) EN ISO 13849-1:2023 EN 61800-5-2:2017	
	<p style="font-size: small;">The product was tested on a voluntary basis and complies with the essential requirements. The certification mark shown above can be affixed on the product. It is not permitted to alter the certification mark in any way. In addition the certification holder must not transfer the certificate to third parties. This certificate is valid until the listed date, unless it is cancelled earlier. All applicable requirements of the testing and certification regulations of TÜV SÜD Group have to be complied. For details see: www.tuvsud.com/ps-cert</p>		
	Test report no.:	BV101649C	
Valid until:	2028-10-26		
Date, 2023-10-31	 (Peter Weiß)		
<p style="font-size: x-small;">Page 1 of 1 TÜV SÜD Product Service GmbH • Certification Body • Ridlerstraße 65 • 80339 Munich • Germany</p>			
			

Abb. 135: ELM8911 – Z10 „Functional Safety“-Zertifikat

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ CERTIFICADO ◆ CERTIFICAT



Product Service

EC-Type Examination Certificate

No. M6A 062386 0100 Rev. 00

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

Product: **Safety components**

Model(s): **ELM72xx with safety card ELM8911**

Parameters: Supply voltage: logic 24VDC / motor 48VDC
 Ambient Temperature: 0°C...+55°C

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

Test report no.: BV101649C

Valid until: 2028-10-26

Date, 2023-10-31

(Peter Weiß)

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


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Abb. 136: ELM8911 – M6A EG-Baumusterprüfbescheinigung

3.26 TwinSAFE Loader

Auf der folgenden Seite erhalten Sie eine Übersicht der aktuellen Zertifikate des TwinSAFE-Tools TwinSAFE Loader.



KONFORMITÄTSBESTÄTIGUNG LETTER OF CONFIRMATION

TwinSAFE Loader

<p><u>Hersteller:</u> <small>Manufacturer:</small></p> <p>Beckhoff Automation GmbH & Co. KG</p> <p>Hülshorstweg 20 D-33415 Verl</p>	<p><u>Prüf- und Zertifizierungsstelle:</u> <small>Test- and certification body:</small></p> <p>TÜV SÜD RAIL GmbH Rail Automation</p> <p>Barthstraße 16 D-80339 München</p>
--	---

1. Allgemein / General

TwinSAFE Loader ist ein PC-basiertes Tool zum Anpassen und Laden eines TwinSAFE-Projekts. Damit lässt sich ein Sicherheitsprojekt unabhängig von der Entwicklungsumgebung (TwinCAT) auf eine TwinSAFE Sicherheitssteuerung laden.

TwinSAFE Loader is a PC-based tool to customize and download a TwinSAFE-Project. It allows to load a safety-project independent from the programming environment (TwinCAT) on a TwinSAFE programmable controller.

Version / Version

TwinSAFE Loader Version v8:

- win32: aa2781a916c769d24c6c57b92a80b378943f5fae038efbd589c31fed8a414506 (TwinSAFE_Loader.exe)
- Linux x86_64: ad6fa0edb3464e76ad8367955c12d84fa19a61a31e1ff85f2279ca435e356488 (TwinSAFE_Loader.bin)
- Linux i386: 55a806f77976e82af486b710915bc2f4a72a7d84b64d47f0a0866aa0bcc23360 (TwinSAFE_Loader-i386.bin)



2. Prüfgrundlagen / Test bases

- EN 61508-1: 2010
- EN 61508-3: 2010 (in Anlehnung / based on)

3. Zusammenfassung / Summary

Gegen den Einsatz des Tools **TwinSAFE Loader** der Fa. Beckhoff Automation GmbH & Co. KG sprechen von Seiten TÜV SÜD Rail GmbH, Rail Automation, keine sicherheitstechnischen Bedenken.

TÜV SÜD Rail GmbH, Rail Automation, has no doubts as to the safety-related issues of the use of the tool **TwinSAFE Loader**.


<p>TÜV SÜD Rail GmbH 22. September 2022</p> <div style="display: flex; align-items: center;">  <div style="font-size: 8px;"> Digital unterschrieben von Gert Effenberger Datum: 2022.09.22 10:26:13 +02'00' </div> </div> <p>G. Effenberger</p>	<div style="display: flex; align-items: center; margin-bottom: 10px;">  <div style="font-size: 8px;"> Digital unterschrieben von Guido Neumann Datum: 2022.09.22 09:29:48 +02'00' </div> </div> <p>G. Neumann</p>
---	---

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.

Abb. 137: TwinSAFE Loader – Konformitätsbestätigung

3.27 TwinSAFE User

Auf der folgenden Seite erhalten Sie eine Übersicht der aktuellen Zertifikate des TwinSAFE-Tools TwinSAFE User.



KONFORMITÄTSBESTÄTIGUNG LETTER OF CONFIRMATION

TwinSAFE User

<p><u>Hersteller:</u> <small><u>Manufacturer:</u></small></p> <p>Beckhoff Automation GmbH & Co. KG</p> <p>Hülshorstweg 20 D-33415 Verl</p>	<p><u>Prüf- und Zertifizierungsstelle:</u> <small><u>Test- and certification body:</u></small></p> <p>TÜV SÜD RAIL GmbH Rail Automation Barthstraße 16 D-80339 München</p>
---	---

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.

Abb. 138: TwinSAFE User – Konformitätsbestätigung

3.28 TwinCAT Safety PLC

Auf der folgenden Seite erhalten Sie eine Übersicht der aktuellen Zertifikate der PC-basierten Sicherheitssteuerung TwinCAT Safety PLC.

<p style="writing-mode: vertical-rl; transform: rotate(180deg);">ZERTIFIKAT ◆ CERTIFICATE ◆ 認証証書 ◆ CERTIFICADO ◆ CERTIFICAT</p>	 Product Service
<h1>CERTIFICATE</h1> <p>No. Z10 16 12 62386 035</p>	
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
	<p>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.</p>
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)
	<p>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.</p>
Test report no.:	BV90306C
Valid until:	2021-12-08
Date, 2016-12-12	 (Jürgen Blum)
Page 1 of 1	
TÜV SÜD Product Service GmbH · Zertifizierstelle · Ridlerstraße 65 · 80339 München · Germany	
	

Abb. 139: TwinCAT Safety PLC – Z10 „Functional Safety“-Zertifikat

3.29 Applikationshandbuch TwinSAFE

Auf der folgenden Seite erhalten Sie eine Übersicht der aktuellen Zertifikate des Applikationshandbuchs TwinSAFE.



KONFORMITÄTSBESTÄTIGUNG
LETTER OF CONFIRMATION

BV89987T

Applikationshandbuch TwinSAFE

(Application guide TwinSAFE)

Hersteller:
Manufacturer:

Beckhoff Automation GmbH & Co. KG

Huelshorstweg 20
D-33415 Verl

Prüfstelle:
Test body:

TÜV SÜD RAIL GmbH
Rail Automation
Barthstr. 16
D-80339 München

1. Allgemein / General

Das "Applikationshandbuch TwinSAFE" zeigt die Berechnungen der sicherheitsrelevanten Kennwerte bezüglich der Wahrscheinlichkeit gefährbringender zufälliger Hardwareausfälle (MTTFd und PFH) nach EN 61508 bzw. EN ISO 13849-1.

The "Application guide TwinSAFE" shows calculations of the safety relevant parameters of the probability of dangerous random hardware failures (MTTFd and PFH) according to EN 61508 respectively EN ISO 13849-1.

2. Prüfgrundlagen / Test bases

Berechnung des MTTF _d und DC entsprechend EN ISO 13849-1:2015 Calculation of MTTF _d and DC in accordance with EN ISO 13849-1:2015
Berechnung des PFH entsprechend EN 61508:2010 Calculation of PFH in accordance with EN 61508:2010
Applikationshandbuch TwinSAFE Version 3.0.0 Application guide TwinSAFE version 3.0.0

3. Zusammenfassung / Summary

Die Applikationsbeispiele des "Applikationshandbuch TwinSAFE" der Firma Beckhoff Automation GmbH & Co. KG wurden von der TÜV SÜD Rail GmbH, Rail Automation, überprüft und bestätigt.

The application examples in the "Application guide TwinSAFE" were checked and confirmed by TÜV SÜD Rail GmbH, Rail Automation.

TÜV SÜD Rail GmbH
2020-07-20



Digital unterschrieben
von Guido Neumann
Datum: 2020.07.20
12:46:21 +02'00'

G. Neumann
Technical Certifier

Digital unterschrieben
von Thomas
Kreten
Datum:
2020.07.20
12:22:59 +02'00'

T. Kreten
Project Leader

Diese Bestätigung wurde auf Grundlage einer TÜV-internen technischen Beurteilung erstellt.
Diese enthält das Ergebnis einer einmaligen Untersuchung an dem zur Prüfung vorgelegten Erzeugnis.

This confirmation was created on basis of a TÜV internal technical review report.
It includes the result of a one-time examination of the product submitted for examination.

Abb. 140: Applikationshandbuch TwinSAFE – Konformitätsbestätigung

3.30 Safety over EtherCAT (FSoE)

Auf der folgenden Seite erhalten Sie eine Übersicht der aktuellen Zertifikate des Protokolls Safety over EtherCAT (FsoE / FailSafe over EtherCAT).

ZERTIFIKAT ◆ CERTIFICATE ◆ 認 證 證 書 ◆ CERTIFICADO ◆ CERTIFICAT	 Product Service
	<h1>CERTIFICATE</h1> <p>No. Z10 18 04 62386 053</p>
	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
	<p>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.</p>
Test report no.: BV81379G	
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Date, 2018-04-17 Page 1 of 1	 (Günter Greil)
	
TÜV SÜD Product Service GmbH · Zertifizierstelle · Ridlerstraße 65 · 80339 München · Germany	
	

Abb. 141: Safety over EtherCAT – Z10 „Functional Safety“-Zertifikat

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