

EC Type-Examination Certificate



Product Safety
Functional
Safety

www.tuv.com
ID 060000000

Reg.-Nr./No.: 01/205/5671.02/23

Prüfgegenstand Product tested	Programmierbare Sicherheitssteuerung für mobile Anwendungen Programmable Safety Controller for mobile applications	Zertifikats- inhaber Certificate holder	ifm electronic GmbH Friedrichstr. 1 45128 Essen Germany
Typbezeichnung Type designation	CR7xxS (Details siehe Revisionsliste) CR7xxS (for details see revision list)		
Prüfgrundlagen Codes and standards	EN 62061:2005 + AC:2010 + A1:2013 + A2:2015 EN 61508 Parts 1-7:2010		
Bestimmungsgemäße Verwendung Intended application	Sicherheitsfunktionen an mobilen Arbeitsmaschinen. Die Geräte erfüllen die Anforderungen der Prüfgrundlagen SIL 2 / SILCL 2 nach EN 61508 / EN 62061 / IEC 62061:2015 und können in Anwendungen bis zu diesem Sicherheitslevel eingesetzt werden. Es kann in Anwendungen bis SIL 2 nach IEC 61508:2010 / EN IEC 62061:2021, PL d nach EN ISO 13849-1:2015, AgPL d nach ISO 25119:2018 und ASIL C nach ISO 26262:2018 eingesetzt werden. Safety functions at mobile machines. The devices comply with the requirements of the relevant standards SIL 2 / SILCL 2 according to EN 61508 / EN 62061 / IEC 62061:2015 and can be used in applications up to this safety level. It can be used in applications up to SIL 2 according to IEC 61508:2010 / EN IEC 62061:2021, PL d acc.to EN ISO 13849-1:2015, AgPL d acc. to ISO 25119:2018 and ASIL C acc. to ISO 26262:2018.		
Besondere Bedingungen Specific requirements	Die Hinweise im zugehörigen Sicherheitshandbuch sind zu beachten. Insbesondere sind für die Entwicklung und das Testen der Anwendersoftware die beschriebenen Vorgaben einzuhalten. The instructions of the associated safety manual must be considered. In particular the provisions for developing and testing the application software need to be followed.		

Es wird bestätigt, dass der Prüfgegenstand mit den Anforderungen nach Anhang I der Richtlinie 2006/42/EG über Maschinen übereinstimmt.

It is confirmed that the product under test complies with the requirements for machines defined in Annex I of the EC Directive 2006/42/EC.

Gültig bis / Valid until 2028-06-06

Der Ausstellung dieses Zertifikates liegt eine Prüfung zugrunde, deren Ergebnisse im Bericht Nr. 968/FSP 1694.15/23 vom 31.05.2023 dokumentiert sind.

Dieses Zertifikat ist nur gültig für Erzeugnisse, die mit dem Prüfgegenstand übereinstimmen.

The issue of this certificate is based upon an examination, whose results are documented in

Report No. 968/FSP 1694.15/23 dated 2023-05-31.
This certificate is valid only for products which are identical with the product tested.

Köln, 2023-06-06

Notified Body for Machinery, NB 0035

Sabine Wiegand
Dipl.-Ing. (FH) Sabine
Wiegand

www.fs-products.com
www.tuv.com

 **TÜVRheinland®**
Precisely Right.

Safety Related Modules / Components for IEC 61508

Type Designation	Description	Hardware Version	Delivery Package Safe Version	Report No.:	Certification Status
CR721S	Programmable Safety Controller ecomatController/124-1 ecomatController CR721S	V1.0.4.2 V1.0.5.3 V1.0.5.4	V 3.0.0.3	968/FSP 1694.00/19	<i>Invalid</i>
			V 3.0.0.4	968/FSP 1694.03/19	<i>Invalid</i>
			V 3.0.0.5	968/FSP 1694.03/19	<i>Invalid</i>
			V 3.0.0.6	968/FSP 1694.06/20	<i>Valid</i>
			V 3.1.0.6	968/FSP 1694.06/20	<i>Valid</i>
			V 3.1.0.7	968/FSP 1694.10/21	<i>Valid</i>
			V 3.1.1.5	968/FSP 1694.07/21 968/FSP 1694.08/21 968/FSP 1694.09/21	<i>Valid</i>
			V 3.1.1.7	968/FSP 1694.10/21	<i>Valid</i>
			V 3.2.0.3	968/FSP 1694.12/22	<i>Valid</i>
CR721S	Programmable Safety Controller ecomatController/124-1 + Controller safety package CP100S (CODESYS SP18)	V1.0.4.2 V1.0.5.3 V1.0.5.4	V4.1.0.10-x	968/FSP 1694.16/25	<i>Valid</i>
CR720S	Programmable Safety Controller ecomatController/98-1 ecomatController CR720S	V1.0.4.2 V1.0.5.3 V1.0.5.4	V 3.0.0.3	968/FSP 1694.01/19	<i>Invalid</i>
			V 3.0.0.4	968/FSP 1694.03/19	<i>Invalid</i>
			V 3.0.0.5	968/FSP 1694.03/19	<i>Invalid</i>
			V 3.0.0.6	968/FSP 1694.06/20	<i>Valid</i>

Type Designation	Description	Hardware Version	Delivery Package Safe Version	Report No.:	Certification Status
			V 3.1.0.6	968/FSP 1694.06/20	<i>Valid</i>
			V 3.1.0.7	968/FSP 1694.10/21	<i>Valid</i>
			V 3.1.1.4	968/FSP 1694.07/21 968/FSP 1694.08/21 968/FSP 1694.09/21	<i>Valid</i>
			V 3.1.1.7	968/FSP 1694.10/21	<i>Valid</i>
			V 3.2.0.3	968/FSP 1694.12/22	<i>Valid</i>
CR720S	Programmable Safety Controller ecomatController/98-1 + Controller safety package CP100S (CODESYS SP18)	V1.0.4.2 V1.0.5.3 V1.0.5.4	V4.1.0.10-x	968/FSP 1694.16/25	<i>Valid</i>
CR711S	Programmable Safety Controller ecomatController/60-1 ecomatController CR711S	V1.0.4.2 V1.0.4.3 V1.0.4.4	V 3.0.0.3	968/FSP 1694.02/19	<i>Invalid</i>
			V 3.0.0.4	968/FSP 1694.03/19	<i>Invalid</i>
			V 3.0.0.5	968/FSP 1694.03/19	<i>Invalid</i>
			V 3.0.0.6	968/FSP 1694.06/20	<i>Valid</i>
			V 3.1.0.6	968/FSP 1694.06/20	<i>Valid</i>
			V 3.1.0.7	968/FSP 1694.10/21	<i>Valid</i>
			V 3.1.1.4	968/FSP 1694.09/21	<i>Valid</i>
			V 3.1.1.7	968/FSP 1694.10/21	<i>Valid</i>



Revision List
 referred to on Certificate No.: 01/205/5671.02/23
Product: Programmable Safety Controller
ecomatController CR7xxS



Type Designation	Description	Hardware Version	Delivery Package Safe Version	Report No.:	Certification Status
			V 3.2.0.3	968/FSP 1694.12/22	<i>Valid</i>
CR711S	Programmable Safety Controller ecomatController/60-1 + Controller safety package CP100S (CODESYS SP18)	V1.0.4.2 V1.0.4.3 V1.0.4.4	V4.1.0.10-x	968/FSP 1694.16/25	<i>Valid</i>
CR710S	Programmable Safety Controller ecomatController/37-1 ecomatController CR710S	V1.0.4.2 V1.0.4.3 V1.0.4.4	V 3.0.0.5	968/FSP 1694.04/19	<i>Invalid</i>
			V 3.0.0.6	968/FSP 1694.06/20	<i>Valid</i>
			V 3.1.0.6	968/FSP 1694.06/20	<i>Valid</i>
			V 3.1.0.7	968/FSP 1694.10/21	<i>Valid</i>
			V 3.1.1.4	968/FSP 1694.09/21	<i>Valid</i>
			V 3.1.1.7	968/FSP 1694.10/21	<i>Valid</i>
			V 3.2.0.3	968/FSP 1694.12/22	<i>Valid</i>
CR710S	Programmable Safety Controller ecomatController/37-1 + Controller safety package CP100S (CODESYS SP18)	V1.0.4.2 V1.0.4.3 V1.0.4.4	V4.1.0.10-x	968/FSP 1694.16/25	<i>Valid</i>

x: is a placeholder for modifications that do not affect the safety of the product.



Revision List
referred to on Certificate No.: 01/205/5671.02/23
Product: Programmable Safety Controller
ecomatController CR7xxS



Safety Related Modules / Components for ISO 26262

Type Designation	Description	HW Version	Delivery Package Safe Version	Report No.:	Certification Status
CR721S	Programmable Safety Controller ecomatController/124-1 ecomatController CR721S	V1.0.5.4	V 3.2.0.3	968/FSP 1694.15/23	<i>Valid</i>
CR721S	Programmable Safety Controller ecomatController/124-1 + Controller safety package CP100S (CODESYS SP18)	V1.0.5.4	V4.1.0.10-x	968/FSP 1694.16/25	<i>Valid</i>
CR720S	Programmable Safety Controller ecomatController/98-1 ecomatController CR720S	V1.0.5.4	V 3.2.0.3	968/FSP 1694.15/23	<i>Valid</i>
CR720S	Programmable Safety Controller ecomatController/98-1 + Controller safety package CP100S (CODESYS SP18)	V1.0.5.4	V4.1.0.10-x	968/FSP 1694.16/25	<i>Valid</i>
CR711S	Programmable Safety Controller ecomatController/60-1 ecomatController CR711S	V1.0.4.4	V 3.2.0.3	968/FSP 1694.15/23	<i>Valid</i>
CR711S	Programmable Safety Controller ecomatController/60-1 + Controller safety package CP100S (CODESYS SP18)	V1.0.4.4	V4.1.0.10-x	968/FSP 1694.16/25	<i>Valid</i>



Revision List
referred to on Certificate No.: 01/205/5671.02/23
Product: Programmable Safety Controller
ecomatController CR7xxS



Type Designation	Description	HW Version	Delivery Package Safe Version	Report No.:	Certification Status
CR710S	Programmable Safety Controller ecomatController/37-1 ecomatController CR710S	V1.0.4.4	V 3.2.0.3	968/FSP 1694.15/23	<i>Valid</i>
CR710S	Programmable Safety Controller ecomatController/37-1 + Controller safety package CP100S (CODESYS SP18)	V1.0.4.4	V4.1.0.10-x	968/FSP 1694.16/25	<i>Valid</i>

x: is a placeholder for modifications that do not affect the safety of the product.



Revision List
referred to on Certificate No.: 01/205/5671.02/23
Product: Programmable Safety Controller
ecomatController CR7xxS



Delivery Package

Delivery Package Safe	Description	ifmOS	CODESYS Device Package Safe	Report No.:	Certification Status
CR721S_V3.0.0.3	Programming Package	V 3.0.0.3	-	968/FSP 1694.00/19	<i>Invalid</i>
CR720S_V3.0.0.3	Programming Package	V 3.0.0.3	-	968/FSP 1694.01/19	<i>Invalid</i>
CR711S_V3.0.0.3	Programming Package	V 3.0.0.3	-	968/FSP 1694.02/19	<i>Invalid</i>
CR721S_V3.0.0.4 CR720S_V3.0.0.4 CR711S_V3.0.0.4	Programming Package	V 3.0.0.4	-	968/FSP 1694.03/19	<i>Invalid</i>
CR721S_V3.0.0.5 CR720S_V3.0.0.5 CR711S_V3.0.0.5	Programming Package	V 3.0.0.5	-	968/FSP 1694.03/19	<i>Invalid</i>
CR710S_V3.0.0.5	Programming Package	V 3.0.0.5	-	968/FSP 1694.04/19	<i>Invalid</i>
CR721S_V3.0.0.6 CR720S_V3.0.0.6 CR711S_V3.0.0.6 CR710S_V3.0.0.6	Programming Package	V 3.0.0.6	V2.4.13.0	968/FSP 1694.06/20	<i>Valid</i>
CR721S_V3.1.0.6 CR720S_V3.1.0.6 CR711S_V3.1.0.6 CR710S_V3.1.0.6	Programming Package	V 3.1.0.6	V3.1.4.1	968/FSP 1694.06/20	<i>Valid</i>

Ifm ecomatic GmbH **INTERNAL**
Friedrichstr. 1
45128 Essen

TÜV Rheinland Industrie Service GmbH
Automation - Functional Safety (A-FS)
Am Grauen Stein
51105 Köln / Germany



Revision List
 referred to on Certificate No.: 01/205/5671.02/23
Product: Programmable Safety Controller
ecomatController CR7xxS



Delivery Package Safe	Description	ifmOS	CODESYS Device Package Safe	Report No.:	Certification Status
CR721S_V3.1.1.5 CR720S_V3.1.1.5 CR711S_V3.1.1.5 CR710S_V3.1.1.5	Programming Package	V 3.1.1.4	V3.1.5.1	968/FSP 1694.09/21	<i>Valid</i>
CR721S_V3.1.0.7 CR720S_V3.1.0.7 CR711S_V3.1.0.7 CR710S_V3.1.0.7	Programming Package	V 3.1.0.7	V3.1.4.1	968/FSP 1694.10/21	<i>Valid</i>
CR721S_V3.1.1.7 CR720S_V3.1.1.7 CR711S_V3.1.1.7 CR710S_V3.1.1.7	Programming Package	V 3.1.1.7	V3.1.5.1	968/FSP 1694.10/21	<i>Valid</i>
CR721S_V3.2.0.3 CR720S_V3.2.0.3 CR711S_V3.2.0.3 CR710S_V3.2.0.3	Programming Package	V 3.2.0.3	V3.2.0.0	968/FSP 1694.12/22	<i>Valid</i>
ecomatController CP100S V4.1.0.10-x	Delivery Package Safe	V4.1.0.9	V4.1.0.10	968/FSP 1694.16/25	<i>Valid</i>

x: is a placeholder for modifications that do not affect the safety of the product



Revision List
referred to on Certificate No.: 01/205/5671.02/23
Product: Programmable Safety Controller
ecomatController CR7xxS



Safety Manual / User documentation

Document No.	Description	Report-No.:	Certification Status
80275323_DE Stand: 03/2019	Original-Betriebsanleitung ecomatController CR721S	968/FSP 1694.00/19	<i>Valid</i>
80275323_DE-DINA6.pdf Stand: 06/2019	Original-Betriebsanleitung ecomatController CR720S CR721S	968/FSP 1694.01/19	<i>Valid</i>
7391145_00_DE Stand: 03/2019	Programmierhandbuch ecomatController/124 CR721S	968/FSP 1694.00/19	<i>Valid</i>
7391144_00_DE Stand: 03/2019	Programmierhandbuch ecomatController/98 CR720S	968/FSP 1694.01/19	<i>Valid</i>
80275324_DE-DINA6 Stand: 06/2019	Original-Betriebsanleitung ecomatController CR710S CR711S	968/FSP 1694.02/19	<i>Valid</i>
7391143_00_DE Stand: 03/2019	Programmierhandbuch ecomatController/60 CR711S	968/FSP 1694.02/19	<i>Valid</i>
7391142_00_DE Stand: 03/2019	Programmierhandbuch ecomatController/37 CR710S	968/FSP 1694.04/19	<i>Valid</i>
80291607_DE.pdf Stand: 02/2020	Original-Betriebsanleitung ecomatController CR720S CR721S	968/FSP 1694.05/20	<i>Valid</i>
80291608_DE.pdf Stand: 02/2020	Original-Betriebsanleitung ecomatController CR710S CR711S	968/FSP 1694.05/20	<i>Valid</i>

Ifm ecomatic GmbH **INTERNAL**
Friedrichstr. 1
45128 Essen

TÜV Rheinland Industrie Service GmbH
Automation - Functional Safety (A-FS)
Am Grauen Stein
51105 Köln / Germany

Document No.	Description	Report-No.:	Certification Status
80292363_00_DE.pdf Stand: 02/2020	Programmierhandbuch ecomatController CR710S, CR711S, CR720S, CR721S	968/FSP 1694.05/20	<i>Valid</i>
80295862_00_DE.pdf Stand: 08/2020	Programmierhandbuch ecomatController CR710S, CR711S, CR720S, CR721S	968/FSP 1694.06/20	<i>Valid</i>
80299358_DE.pdf Stand: 11/2020	Original-Betriebsanleitung ecomatController CR720S CR721S	968/FSP 1694.07/21	<i>Valid</i>
11367587_00_DE.pdf Stand: 02/2021	Programmierhandbuch ecomatController CR710S, CR711S, CR720S, CR721S	968/FSP 1694.09/21	<i>Valid</i>
11413564_00_DE.pdf Stand: 03/2022	Programmierhandbuch ecomatController CR710S, CR711S, CR720S, CR721S	968/FSP 1694.12/22	<i>Valid</i>
11535336_00_DE.pdf Stand: 06/2023	Application Note ecomatController – ISO26262 ecomatController CR7xxS	968/FSP 1694.15/23	<i>Valid</i>
11645201_yy	Programming manual safe ecomatController CP100S + CR7xxS	968/FSP 1694.16/25	<i>Valid</i>
11644783_yy	Operating instructions Cyber Security ecomatController CR710S CR711S CR720S CR721S	968/FSP 1694.16/25	<i>Valid</i>

yy: is a placeholder for modifications that do not affect the safety of the product

The content of this Revision List has been agreed between Manufacturer and Certification Body

Revision:

Datum	Rev.	Description / Changes	Autor
2019-05-22	1.0	Initial creation, based on Report-No.: 968/FSP 1694.00/19	Wi/A-FS
2019-07-09	2.0	Extension by variant CR720S, based on Report-No.: 968/FSP 1694.01/19	Wi/A-FS
2019-08-26	2.1	Extension by variant CR711S, based on Report-No.: 968/FSP 1694.02/19	Wi/A-FS
2019-09-05	2.2	Extension by new SW versions V 3.0.0.4 and V 3.0.0.5, based on Report-No.: 968/FSP 1694.03/19	Wi/A-FS
2019-10-01	2.3	Extension by variant CR710S, based on Report-No.: 968/FSP 1694.04/19	Wi/A-FS
2020-03-12	2.4	First version in English translation based on Report-No.: 968/FSP 1694.05/20	Wi/A-FS
2020-11-04	2.5	Extension by new SW versions V 3.0.0.6 and V 3.1.0.6, based on Report-No.: 968/FSP 1694.06/20	Wi+mgu/A-FS
2021-03-12	2.6	Extension by new HW versions V 1.0.5.2, based on Report-No.: 968/FSP 1694.07/21	Wi/A-FS
2021-06-02	2.7	Extension by new HW versions V 1.0.5.3, based on Report-No.: 968/FSP 1694.08/21, removal of HW-Version 1.0.5.2 at the request of the customer	Wi/A-FS
2021-06-21	2.8	Extension by new SW versions V 3.1.1.4, based on Report-No.: 968/FSP 1694.09/21	Mgu/A-FS
2021-09-09	2.9	Extension by new SW versions V 3.1.1.7 and V 3.1.0.7, as well as HW Version V 1.0.4.3 and V 1.0.5.3 based on Report-No.: 968/FSP 1694.10/21 Replacement of Certificate and listing of harmonized EN standard as well as IEC.	Wi+Mgu/A-FS
2021-12-28	2.10	Extension by new HW Version V 1.0.4.4 and V 1.0.5.4 based on Report-No.: 968/FSP 1694.11/21	Wi/A-FS
2022-04-21	2.11	Customized variant CR901S (not part of RL) identical with CR721S, based on Report-No.: 968/FSP 1694.12/22	Wi/A-FS
2022-05-31	2.12	Extension by new SW versions V 3.2.0.3 (IoT-Core), based on Report-No.: 968/FSP 1694.13/22	Mgu/A-FS
2023-05-31	2.13	Extension of intended application for ISO 26262, based on Report-No.: 968/FSP 1694.15/23	Mgu/A-FS
2025-05-23	2.14	Extension by new Delivery Package Version V4.1.0.10 (Controller safety package CP100S (CODESYS SP18)), based on Report-No.: 968/FSP 1694.16/25	Mgu/A-FS