

**Revision List of CIP Safety Stack (CSS)  
of Sercos International e.V. • Certificate-No.: EZ 609.01/14**



<b>CIP Safety on Sercos Software (CSoS) – CSS V1.1.1 and CSAL 1.2.0</b>				
<b>Components</b>	<b>Description</b>	<b>Revision</b>	<b>Report-No.</b>	<b>Status</b>
CSoS Target	CIP Safety Protocol Stack Target and CIP Safety Adaption Layer Target	MD5 36265357b8c5ede7 30321005cc8eb82e	EZ 609.00/13	<i>valid</i> <sup>1</sup>
CSoS Originator	CIP Safety Protocol Stack Originator and CIP Safety Adaption Layer Originator	MD5 64ee2ea452b75089 d24014b69cbfbf0d	EZ 609.00/13	<i>valid</i> <sup>1</sup>
<b>User documentation:</b>				
CSS Manual	CIP Safety ProtokollsoftwareTeil1: Generische Protokollsoftware und Target No.: 4.02.0500.10000	V1.3	EZ 609.00/13	<i>valid</i>
CSS Manual	CIP Safety ProtokollsoftwareTeil2: Originator No.: 4.02.0500.10100	V1.3	EZ 609.00/13	<i>valid</i>
CSAL Manual	CIP Safety Adaptation Layer Protokollsoftware No.: 4.02.0500.10200	V1.2	EZ 609.00/13	<i>valid</i>

<sup>1</sup> Please see the last section "Safety information concerning previous CSS revisions" at the end of this document.

**Revision List of CIP Safety Stack (CSS)  
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<b>CIP Safety on Sercos Software (CSoS) – CSS V1.1.2.0 and CSAL 1.2.0.0</b>				
<b>Components</b>	<b>Description</b>	<b>Revision</b>	<b>Report-No.</b>	<b>Status</b>
CSoS Target	CIP Safety Protocol Stack Target and CIP Safety Adaption Layer Target	MD5 6a3686d934a01634 4b716a7ccf1f8f2f	EZ 609.04/16	<i>valid</i> <sup>1</sup>
CSoS Originator	CIP Safety Protocol Stack Originator and CIP Safety Adaption Layer Originator	MD5 e398aad19431f4b6 51e03811fc95edb2	EZ 609.04/16	<i>valid</i> <sup>1</sup>
<b>User documentation:</b>				
CSS Manual	CIP Safety ProtokollsoftwareTeil1: Generische Protokollsoftware und Target No.: 4.02.0500.10000	V1.3	EZ 609.00/13	<i>valid</i>
CSS Manual	CIP Safety ProtokollsoftwareTeil2: Originator No.: 4.02.0500.10100	V1.3	EZ 609.00/13	<i>valid</i>
CSAL Manual	CIP Safety Adaptation Layer Protokollsoftware No.: 4.02.0500.10200	V1.2	EZ 609.00/13	<i>valid</i>

<sup>1</sup> Please see the last section "Safety information concerning previous CSS revisions" at the end of this document.

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<b>CIP Safety on Sercos Software (CSoS) – CSS V1.3.0 and CSAL 1.4.0</b>				
<b>Components</b>	<b>Description</b>	<b>Revision</b>	<b>Report-No.</b>	<b>Status</b>
CSoS Target	CIP Safety Protocol Stack Target and CIP Safety Adaption Layer Target	MD5 9892c7e342c38a30 8a5ed45d7c180a67	EZ 609.01/14	<i>valid</i> <sup>1</sup>
CSoS Originator	CIP Safety Protocol Stack Originator and CIP Safety Adaption Layer Originator	MD5 a98d60f080bb9497 fb92b021ddbcb03	EZ 609.01/14	<i>valid</i> <sup>1</sup>
<b>User documentation:</b>				
CSS Manual	CIP Safety ProtokollsoftwareTeil1: Generische Protokollsoftware und Target No.: 4.02.0500.10000	V1.5	EZ 609.01/14	<i>valid</i>
CSS Manual	CIP Safety ProtokollsoftwareTeil2: Originator No.: 4.02.0500.10100	V1.4	EZ 609.01/14	<i>valid</i>
CSAL Manual	CIP Safety Adaptation Layer Protokollsoftware No.: 4.02.0500.10200	V1.4	EZ 609.01/14	<i>valid</i>

<sup>1</sup> Please see the last section "Safety information concerning previous CSS revisions" at the end of this document.

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<b>CIP Safety on Sercos Software (CSoS) – CSS V1.3.1.1 and CSAL 1.4.0.1</b>				
<b>Components</b>	<b>Description</b>	<b>Revision</b>	<b>Report-No.</b>	<b>Status</b>
CSoS Target	CIP Safety Protocol Stack Target and CIP Safety Adaption Layer Target	MD5 ece0a5140572f562 9c821b8471079b47	EZ 609.02/15	<i>valid</i> <sup>1</sup>
CSoS Originator	CIP Safety Protocol Stack Originator and CIP Safety Adaption Layer Originator	MD5 61dd17bd663b674b 56ac9e84d95cca02	EZ 609.02/15	<i>valid</i> <sup>1</sup>
<b>User documentation:</b>				
CSS Manual	CIP Safety ProtokollsoftwareTeil1: Generische Protokollsoftware und Target No.: 4.02.0500.10000	V1.5	EZ 609.01/14	<i>valid</i>
CSS Manual	CIP Safety ProtokollsoftwareTeil2: Originator No.: 4.02.0500.10100	V1.4	EZ 609.01/14	<i>valid</i>
CSAL Manual	CIP Safety Adaptation Layer Protokollsoftware No.: 4.02.0500.10200	V1.4	EZ 609.01/14	<i>valid</i>

<sup>1</sup> Please see the last section "Safety information concerning previous CSS revisions" at the end of this document.

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<b>CIP Safety on Sercos Software (CSoS) – CSS V1.3.2.0 and CSAL 1.4.0.1</b>				
<b>Components</b>	<b>Description</b>	<b>Revision</b>	<b>Report-No.</b>	<b>Status</b>
CSoS Target	CIP Safety Protocol Stack Target and CIP Safety Adaption Layer Target	MD5 7563d6acca784ad8 1dded4e7bf84f2ae	EZ 609.04/16	<i>valid</i> <sup>1</sup>
CSoS Originator	CIP Safety Protocol Stack Originator and CIP Safety Adaption Layer Originator	MD5 265647992e557628 88f100ca26acb21f	EZ 609.04/16	<i>valid</i> <sup>1</sup>
<b>User documentation:</b>				
CSS Manual	CIP Safety ProtokollsoftwareTeil1: Generische Protokollsoftware und Target No.: 4.02.0500.10000	V1.5	EZ 609.01/14	<i>valid</i>
CSS Manual	CIP Safety ProtokollsoftwareTeil2: Originator No.: 4.02.0500.10100	V1.4	EZ 609.01/14	<i>valid</i>
CSAL Manual	CIP Safety Adaptation Layer Protokollsoftware No.: 4.02.0500.10200	V1.4	EZ 609.01/14	<i>valid</i>

<sup>1</sup> Please see the last section "Safety information concerning previous CSS revisions" at the end of this document.

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<b>CIP Safety on Sercos Software (CSoS) Originator – CSS V1.5.1.1 and CSAL 1.5.2.0</b>				
Components	Description	Revision	Report-No.	Status
CSoS Originator	CIP Safety Protocol Stack Originator and CIP Safety Adaption Layer Originator	MD5 cff984d5d3061038 48d51232bb25c5f3	EZ 609.05/16	<i>valid</i> <sup>1</sup>
<b>User documentation:</b>				
CSS Manual	CIP Safety ProtokollsoftwareTeil1: Generische Protokollsoftware und Target No.: 4.02.0500.10000	V1.6	EZ 609.05/16	<i>valid</i>
CSS Manual	CIP Safety ProtokollsoftwareTeil2: Originator No.: 4.02.0500.10100	V1.5	EZ 609.05/16	<i>valid</i>
CSAL Manual	CIP Safety Adaptation Layer Protokollsoftware No.: 4.02.0500.10200	V1.5	EZ 609.05/16	<i>valid</i>

<b>CIP Safety on Sercos Software (CSoS) Target – CSS V1.3.2.0 and CSAL 1.4.0.1</b>				
Components	Description	Revision	Report-No.	Status
CSoS Target	CIP Safety Protocol Stack Target and CIP Safety Adaption Layer Target	MD5 7563d6acca784ad8 1dded4e7bf84f2ae	EZ 609.04/16	<i>valid</i>
<b>User documentation:</b>				
CSS Manual	CIP Safety ProtokollsoftwareTeil1: Generische Protokollsoftware und Target No.: 4.02.0500.10000	V1.5	EZ 609.01/14	<i>valid</i>
CSAL Manual	CIP Safety Adaptation Layer Protokollsoftware No.: 4.02.0500.10200	V1.4	EZ 609.01/14	<i>valid</i>

<sup>1</sup> Please see the last section "Safety information concerning previous CSS revisions" at the end of this document.

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<b>CIP Safety on EtherNet/IP Software (CSoE) – CSS V1.3.1.1 and CSALib V1.4.0.2</b>				
<b>Components</b>	<b>Description</b>	<b>Revision</b>	<b>Report-No.</b>	<b>Status</b>
CSoE Target	CIP Safety Protocol Stack Target and CIP Safety Adaption Layer Library Target	MD5 a5fe94460b2f5028 04ae1f2920770775	EZ 609.03/15	<i>valid</i> <sup>1</sup>
CSoE Originator	CIP Safety Protocol Stack Originator and CIP Safety Adaption Layer Library Originator	MD5 7f1694276a1cdc02 a6491db89c56b1d0	EZ 609.03/15	<i>valid</i> <sup>1</sup>
<b>User documentation:</b>				
CSS Manual	CIP Safety ProtokollsoftwareTeil1: Generische Protokollsoftware und Target No.: 4.02.0500.10000	V1.5	EZ 609.01/14	<i>valid</i>
CSS Manual	CIP Safety ProtokollsoftwareTeil2: Originator No.: 4.02.0500.10100	V1.4	EZ 609.01/14	<i>valid</i>
CSS Manual	CIP Safety Protocol Software Part 1: Generic Protocol software and target No.: 4.02.0500.20000	V1.5	EZ 609.03/15	<i>valid</i>
CSS Manual	CIP Safety Protocol Software Part 2: Originator No.: 4.02.0500.20100	V1.4	EZ 609.03/15	<i>valid</i>
EIP Manual	CIP Safety on EtherNet/IP: Generic Porting Guide No.: 4.02.0501.20002	V1.2	EZ 609.03/15	<i>valid</i>

<sup>1</sup> Please see the last section "Safety information concerning previous CSS revisions" at the end of this document.

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<b>CIP Safety on EtherNet/IP Software (CSoE) – CSS V1.3.2.0 and CSALlib V1.4.0.2</b>				
<b>Components</b>	<b>Description</b>	<b>Revision</b>	<b>Report-No.</b>	<b>Status</b>
CSoE Target	CIP Safety Protocol Stack Target and CIP Safety Adaption Layer Library Target	MD5 9fabdeb6fccd8ff7 3efcfd952586fd9b	EZ 609.04/16	<i>valid</i> <sup>1</sup>
CSoE Originator	CIP Safety Protocol Stack Originator and CIP Safety Adaption Layer Library Originator	MD5 68da8e4a50ebfcc 0db4c434e34951e4	EZ 609.04/16	<i>valid</i> <sup>1</sup>
<b>User documentation:</b>				
CSS Manual	CIP Safety ProtokollsoftwareTeil1: Generische Protokollsoftware und Target No.: 4.02.0500.10000	V1.5	EZ 609.01/14	<i>valid</i>
CSS Manual	CIP Safety ProtokollsoftwareTeil2: Originator No.: 4.02.0500.10100	V1.4	EZ 609.01/14	<i>valid</i>
CSS Manual	CIP Safety Protocol Software Part 1: Generic Protocol software and target No.: 4.02.0500.20000	V1.5	EZ 609.03/15	<i>valid</i>
CSS Manual	CIP Safety Protocol Software Part 2: Originator No.: 4.02.0500.20100	V1.4	EZ 609.03/15	<i>valid</i>
EIP Manual	CIP Safety on EtherNet/IP: Generic Porting Guide No.: 4.02.0501.20002	V1.2	EZ 609.03/15	<i>valid</i>

<sup>1</sup> Please see the last section "Safety information concerning previous CSS revisions" at the end of this document.



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<b>CIP Safety on EtherNet/IP Software (CSoE) Originator – CSS V1.5.1.1 and CSALib V1.5.2.0</b>				
<b>Components</b>	<b>Description</b>	<b>Revision</b>	<b>Report-No.</b>	<b>Status</b>
CSoE Originator	CIP Safety Protocol Stack Originator and CIP Safety Adaption Layer Library Originator	MD5 0b8f0c0b1a2a42d5 d0afd39850f4a7bc	EZ 609.05/16	<i>valid</i> <sup>1</sup>
<b>User documentation:</b>				
CSS Manual	CIP Safety ProtokollsoftwareTeil1: Generische Protokollsoftware und Target No.: 4.02.0500.10000	V1.6	EZ 609.05/16	<i>valid</i>
CSS Manual	CIP Safety ProtokollsoftwareTeil2: Originator No.: 4.02.0500.10100	V1.5	EZ 609.05/16	<i>valid</i>
CSS Manual	CIP Safety Protocol Software Part 1: Generic Protocol software and target No.: 4.02.0500.20000	V1.6	EZ 609.05/16	<i>valid</i>
CSS Manual	CIP Safety Protocol Software Part 2: Originator No.: 4.02.0500.20100	V1.5	EZ 609.05/16	<i>valid</i>
EIP Manual	CIP Safety on EtherNet/IP: Generic Porting Guide No.: 4.02.0501.20002	V1.3	EZ 609.05/16	<i>valid</i>

<b>CIP Safety on EtherNet/IP Software (CSoE) Target – CSS V1.3.2.0 and CSALib V1.4.0.2</b>				
<b>Components</b>	<b>Description</b>	<b>Revision</b>	<b>Report-No.</b>	<b>Status</b>
CSoE Target	CIP Safety Protocol Stack Target and CIP Safety Adaption Layer Library Target	MD5 9fabdeb6fccd8ff7 3efcfd952586fd9b	EZ 609.04/16	<i>valid</i> <sup>1</sup>
<b>User documentation:</b>				
CSS Manual	CIP Safety ProtokollsoftwareTeil1: Generische Protokollsoftware und Target No.: 4.02.0500.10000	V1.5	EZ 609.01/14	<i>valid</i>
CSS Manual	CIP Safety Protocol Software Part 1: Generic Protocol software and target No.: 4.02.0500.20000	V1.5	EZ 609.03/15	<i>valid</i>

<sup>1</sup> Please see the last section "Safety information concerning previous CSS revisions" at the end of this document.

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<b>CIP Safety on EtherNet/IP Software (CSoE) Target – CSS V1.3.2.0 and CSALlib V1.4.0.2</b>				
Components	Description	Revision	Report-No.	Status
EIP Manual	CIP Safety on EtherNet/IP: Generic Porting Guide No.: 4.02.0501.20002	V1.2	EZ 609.03/15	<i>valid</i>

<b>CIP Safety on EtherNet/IP Software (CSoE) – CSS V1.6.1.0 and CSALlib V1.5.2.1</b>				
Components	Description	Revision	Report-No.	Status
CSoE Target	CIP Safety Protocol Stack Target and CIP Safety Adaption Layer Library Target	MD5 74163fca5e9a3057 8ed63ec862d02905	EZ 609.06/17	<i>valid</i>
CSoE Originator	CIP Safety Protocol Stack Originator and CIP Safety Adaption Layer Library Originator	MD5 032db25d1facc329 dc3755bedda5f19f	EZ 609.06/17	<i>valid</i>

**User documentation:**

CSS Manual	CIP Safety ProtokollsoftwareTeil1: Generische Protokollsoftware und Target No.: 4.02.0500.10000	V1.7	EZ 609.06/17	<i>valid</i>
CSS Manual	CIP Safety ProtokollsoftwareTeil2: Originator No.: 4.02.0500.10100	V1.6	EZ 609.06/17	<i>valid</i>
CSS Manual	CIP Safety Protocol Software Part 1: Generic Protocol software and target No.: 4.02.0500.20000	V1.7	EZ 609.06/17	<i>valid</i>
CSS Manual	CIP Safety Protocol Software Part 2: Originator No.: 4.02.0500.20100	V1.6	EZ 609.06/17	<i>valid</i>
EIP Manual	CIP Safety on EtherNet/IP: Generic Porting Guide No.: 4.02.0501.20002	V1.4	EZ 609.06/17	<i>valid</i>

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<b>CIP Safety on EtherNet/IP Software (CSoE) – CSS V1.3.3.0 and CSALlib V1.4.0.2</b>				
<b>Components</b>	<b>Description</b>	<b>Revision</b>	<b>Report-No.</b>	<b>Status</b>
CSoE Target	CIP Safety Protocol Stack Target and CIP Safety Adaption Layer Library Target	MD5 149032f377700341 f27d18f7a1b30b79	EZ 609.06/17	<i>valid</i>
CSoE Originator	CIP Safety Protocol Stack Originator and CIP Safety Adaption Layer Library Originator	MD5 dd1e8639a5314b55 ad646afb62d13c78	EZ 609.06/17	<i>valid</i>
<b>User documentation:</b>				
CSS Manual	CIP Safety ProtokollsoftwareTeil1: Generische Protokollsoftware und Target No.: 4.02.0500.10000	V1.5	EZ 609.01/14	<i>valid</i>
CSS Manual	CIP Safety Protocol Software Part 1: Generic Protocol software and target No.: 4.02.0500.20000	V1.5	EZ 609.03/15	<i>valid</i>
EIP Manual	CIP Safety on EtherNet/IP: Generic Porting Guide No.: 4.02.0501.20002	V1.2	EZ 609.03/15	<i>valid</i>

<b>CIP Safety on EtherNet/IP Software (CSoE) – CSS V1.6.4.1 and CSALlib V1.5.2.1</b>				
<b>Components</b>	<b>Description</b>	<b>Revision</b>	<b>Report-No.</b>	<b>Status</b>
CSoE Target	CIP Safety Protocol Stack Target and CIP Safety Adaption Layer Library Target	MD5 4d1b601e3bf5c657 f6324d56f3ab0c00	EZ 609.07/18	<i>valid</i>
CSoE Originator	CIP Safety Protocol Stack Originator and CIP Safety Adaption Layer Library Originator	MD5 6633061e8368fea1 de592105569791a0	EZ 609.07/18	<i>valid</i>
<b>User documentation:</b>				
CSS Manual	CIP Safety ProtokollsoftwareTeil1: Generische Protokollsoftware und Target No.: 4.02.0500.10000	V1.9	EZ 609.07/18	<i>valid</i>
CSS Manual	CIP Safety ProtokollsoftwareTeil2: Originator No.: 4.02.0500.10100	V1.7	EZ 609.07/18	<i>valid</i>

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<b>CIP Safety on EtherNet/IP Software (CSoE) – CSS V1.6.4.1 and CSALib V1.5.2.1</b>				
<b>Components</b>	<b>Description</b>	<b>Revision</b>	<b>Report-No.</b>	<b>Status</b>
CSS Manual	CIP Safety Protocol Software Part 1: Generic Protocol software and target No.: 4.02.0500.20000	V1.9	EZ 609.07/18	<i>valid</i>
CSS Manual	CIP Safety Protocol Software Part 2: Originator No.: 4.02.0500.20100	V1.7	EZ 609.07/18	<i>valid</i>
EIP Manual	CIP Safety on EtherNet/IP: Generic Porting Guide No.: 4.02.0501.20002	V1.4	EZ 609.06/17	<i>valid</i>

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<b>Safety information concerning previous CSS revisions</b>				
<b>Previous stack revisions in which malfunctions can occur under certain conditions</b>				
<b>Note:</b>				
The affected revisions of CSoE / CSoS shall only be used under special consideration of the safety relevant information provided by the manufacturer.				
For further information please refer to <a href="http://www.hms-networks.de">http://www.hms-networks.de</a> .				
Components	Description	Affected Revision	Report-No.	Status
CSoE / CSoS Target	Potential vulnerability has been found in CSS: <ul style="list-style-type: none"> <li>Either "Base Format" shall be used or if the "Extended Format" is used, then the "Max_Fault_Number" shall be set to "0" (or "1").</li> </ul>	CSS V1.1.1 CSS V1.3.0	EZ 609.04/16	-/-
CSoE / CSoS Originator				
CSoE / CSoS Target	Potential vulnerability has been found in CSS: <ul style="list-style-type: none"> <li>A worst case safe reaction time of 2 * Network_Time_Expectation_Multiplier shall be considered.</li> </ul>	CSS V1.1.1 CSS V1.3.0 CSS V1.3.1	EZ 609.04/16	-/-
CSoE / CSoS Originator				
CSoE / CSoS Target	Potential vulnerability has been found in CSS: <ul style="list-style-type: none"> <li>If CSS_cfg_SAFETY_RESET is set to CSS_k_ENABLE and a malformed Safety_Reset request message (non-safe service) is received, a read access to a NULL-pointer may occur.</li> </ul>	CSS V1.1.1 CSS V1.1.2 CSS V1.3.0 CSS V1.3.1 CSS V1.3.2 CSS V1.5.1	EZ 609.06/17	-/-
CSoE / CSoS Originator				

	<b>Manufacturer:</b>	<b>Test Institute:</b>	<b>Certifier:</b>
<b>Signature:</b>		 Dipl.-Ing. (FH) Konstantin Rudnizki	 Dipl.-Ing. Thomas Steffens
<b>Date:</b>		2018-04-30	2018-04-30

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**Document Revision**

Date	Version	Revisions / Changes	Author
2014-10-06	1.0	First issue, based on report-No.: 968/EZ 609.01/14	Ke/A-FS
2015-03-02	2.0	Update, based on report-No.: 968/EZ 609.02/15	Ke/A-FS
2015-10-27	3.0	Update, based on report-No.: 968/EZ 609.03/15	Ke/A-FS
2016-03-21	4.0	Update, based on report-No.: 968/EZ 609.04/16	Ke/A-FS
2016-07-29	5.0	Update, based on report-No.: 968/EZ 609.05/16	Ke/A-FS
2016-08-23	5.1	Textkorrektur	Ke/A-FS
2017-09-06	6.0	Update, based on report-No.: 968/EZ 609.06/17 Added a new section to this revision list "Safety information concerning previous CSS revisions".	Rud/A-FS
2018-04-30	7.0	Update, based on report-No.: 968/EZ 609.07/18	Rud/A-FS