



EULYNX Initiative



Europe's Rail Joint Undertaking

Interface specification SCI-IO

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| ID | Type | Requirement | Func. Pkg. | JIRA | V 4.0 (3.A) > V 4.0 (2.A) |
|-------------------|------|--|------------|----------|--|
| Eu.SCI-IO.PDI.4 | Head | 1 Introduction | | | |
| Eu.SCI-IO.PDI.5 | Head | 1.1 Release information | | | |
| Eu.SCI-IO.PDI.6 | Info | [Eu.Doc.46] Interface specification SCI-IO CENELEC Phase: 5 Version: 4.0 (3.A) Approval date: 29.05.2024 | | | Object Text: [Eu.Doc.46] Interface specification SCI-IO CENELEC Phase: 5 Version: 4.0 (2 3.A) Approval date: 1529.0605.2023 2024 |
| Eu.SCI-IO.PDI.1 | Info | Version history | | | |
| Eu.SCI-IO.PDI.231 | Info | version number: 4.0 (0.A) date: 16.05.2022 author: Jorge Block review: CCB changes: EUIO-368, EUIO-372 | | | |
| Eu.SCI-IO.PDI.232 | Info | version number: 4.0 (1.A) date: 06.04.2023 author: Jorge Block, Philipp Wolber review: changes: EUIO-377, EUIO-379 | | | |
| Eu.SCI-IO.PDI.233 | Info | version number: 4.0 (2.A) date: 27.06.2023 author: Jorge Block review: TACS Mirror Group changes: EUIO-387, EUIO-389, EUIO-392, EUIO-395 | | | |
| Eu.SCI-IO.PDI.235 | Info | version number: 4.0 (3.A) date: 19.06.2024 author: Jorge Block, Ricky Holz review: TACS Mirror Group changes: EUIO-422, EUIO-433, EUIO-434 | | | object created after baseline 4.0 (2.A) |
| Eu.SCI-IO.PDI.7 | Head | 1.2 Impressum | | | |
| Eu.SCI-IO.PDI.8 | Info | Publisher: Europe's Rail Joint Undertaking https://rail-research.europa.eu/ EULYNX Initiative https://eulynx.eu/ | | EUIO-433 | Object Text: Publisher: Europe's Rail Joint Undertaking https://rail-research.europa.eu/ EULYNX Initiative A full list of the EULYNX Partners can be found on- www.https://eulynx.eu/index.php/members a_JIRA_BL4R3: EUIO-433 |
| Eu.SCI-IO.PDI.9 | Info | Responsible for this document: EU-Rail System Pillar Trackside Assets Control and Supervision domain | | | |
| Eu.SCI-IO.PDI.201 | Info | This document is drafted by and belongs to EU Rail. EU Rail encourages the distribution and re-use of this document, the technical specifications and the information it contains. EU Rail holds several intellectual property rights, such as copyright and trade mark rights, which need to be considered when this document is used. | | EUIO-433 | Object Text: Copyright This EULYNX document Partners is drafted by and belongs to EU Rail. All EU Rail encourages the distribution and re-use of this |

| ID | Type | Requirement | Func. Pkg. | JIRA | V 4.0 (3.A) > V 4.0 (2.A) |
|------------------|------|---|------------|------|--|
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| Eu.SCI-IO.PDI.10 | Head | 1.3 Purpose | | | |
| Eu.SCI-IO.PDI.11 | Info | This document specifies the application layer of the standardised interface for safe communication between the Subsystem - Electronic Interlocking and Subsystem - Generic IO (SCI-IO). | | | |
| Eu.SCI-IO.PDI.12 | Info | This application layer is designated as SCI-IO.PDI. | | | |
| Eu.SCI-IO.PDI.13 | Info | This document contains the general requirements for communication and the technical specification (e.g. telegrams) of the SCI-IO.PDI. | | | |
| Eu.SCI-IO.PDI.14 | Info | This specification does not define the detailed behaviour of the interfacing partners (Subsystem - Electronic Interlocking and Subsystem - Generic IO), nor the situations in which the defined telegrams are sent. This behaviour is the subject of the individual system specifications. | | | |
| Eu.SCI-IO.PDI.15 | Info | Some items, referring to "interface-related" functionality of the communication partners, have been added to this specification as information, providing an overview only. In any case these are subject to appropriate systems (national) specification. | | | |

| ID | Type | Requirement | Func. Pkg. | JIRA | V 4.0 (3.A) > V 4.0 (2.A) |
|-------------------|------|--|------------|----------------------|---|
| Eu.SCI-IO.PDI.16 | Info | This document is intended for the following users: <ul style="list-style-type: none">• safety authorities• infrastructure managers• safety assessors• signalling system suppliers• validators | | | |
| Eu.SCI-IO.PDI.234 | Info | This document is applicable for both the EU-Rail System Pillar target architecture and the EULYNX architecture. The document is delivered as a single specification fitting both the System Pillar documentation sets and the EULYNX documentation sets. EU-Rail System Pillar is the technical authority for this document. | | | |
| Eu.SCI-IO.PDI.18 | Head | 1.4 Applicable standards and regulations | | | |
| Eu.SCI-IO.PDI.19 | Info | The applicable standards and regulations used in EULYNX are listed in the EULYNX Reference Document List [Eu.Doc.12]. | | | |
| Eu.SCI-IO.PDI.198 | Info | The applicability of each reference of this specification is provided by the column “applicability” in the EULYNX Reference Document [Eu.Doc.12], when the value “SCI-IO” is stated. | | | |
| Eu.SCI-IO.PDI.20 | Head | 1.5 Applicable documents | | | |
| Eu.SCI-IO.PDI.21 | Info | The current versions of documents used as input or related to this document are listed in the EULYNX Documentation Plan [Eu.Doc.11]. The relationships between the documents are displayed in the Appendix A1 Documentation plan and structure [Eu.Doc.11_A1]. | | | |
| Eu.SCI-IO.PDI.24 | Head | 1.6 Appendices | | | |
| Eu.SCI-IO.PDI.25 | Info | - <i>intentionally left blank</i> - | | | |
| Eu.SCI-IO.PDI.150 | Head | 1.7 Terms and abbreviations | | | |
| Eu.SCI-IO.PDI.151 | Info | The terms and abbreviations are listed in the EULYNX Glossary [Eu.Doc.9]. | | | |
| Eu.SCI-IO.PDI.152 | Head | 1.8 Variability management | | | |
| Eu.SCI-IO.PDI.153 | Info | This document describes harmonised requirements. Variability management is not applicable. | | | |
| Eu.SCI-IO.PDI.26 | Head | 1.9 Definition of object types | | | |
| Eu.SCI-IO.PDI.27 | Info | The following definition for object types is applied in this document: | | | |
| Eu.SCI-IO.PDI.28 | Info | <ul style="list-style-type: none">• "Req" - This denotes a mandatory requirement. | | | |
| Eu.SCI-IO.PDI.31 | Info | <ul style="list-style-type: none">• "Info" - This denotes additional information to help understand the specification. These objects do not specify any additional requirements. | | | |
| Eu.SCI-IO.PDI.32 | Info | <ul style="list-style-type: none">• "Head" - This denotes chapter headings. | | | |
| Eu.SCI-IO.PDI.33 | Head | 2 General requirements | | | |
| Eu.SCI-IO.PDI.228 | Req | All references to [Eu.Doc.45] refer to Requirements specification for subsystem Generic IO 4.3 (0.A). | | EUIO-422 EUIO-434 | Object Text: All references to [Eu.Doc.45] refer to Requirements specification for subsystem Generic IO 4.23 (0.A). a_JIRA_BL4R3: EUIO-422 EUIO-434 |

| ID | Type | Requirement | Func. Pkg. | JIRA | V 4.0 (3.A) > V 4.0 (2.A) |
|-------------------|------|--|------------|----------------------|---|
| Eu.SCI-IO.PDI.221 | Req | All references to [Eu.Doc.93] refer to Interface specification SCI Generic version 3.3 (0.A). | | EUIO-422 EUIO-434 | Object Text: All references to [Eu.Doc.93] refer to Interface specification SCI Generic version 3. 2 ³ (0.A). a_JIRA_BL4R3: EUIO-422 EUIO-434 |
| Eu.SCI-IO.PDI.42 | Head | 2.1 Version handling | | | |
| Eu.SCI-IO.PDI.212 | Info | The Version handling is described in [Eu.Doc.93]. | | EUIO-422 | Object Text: The Version handling is described in [Eu.Doc.93] . a_JIRA_BL4R3: EUIO-422 |
| Eu.SCI-IO.PDI.222 | Req | The PDI-version of the SCI-IO as described in this document is 0x03. | | | |
| Eu.SCI-IO.PDI.49 | Head | 2.2 Communication requirements | | | |
| Eu.SCI-IO.PDI.50 | Info | The Communication requirements are described in [Eu.Doc.93]. | | EUIO-422 | Object Text: The Communication requirements are described in [Eu.Doc.93] . a_JIRA_BL4R3: EUIO-422 |
| Eu.SCI-IO.PDI.229 | Head | 2.3 Functional requirements | | | |
| Eu.SCI-IO.PDI.230 | Info | The functional requirements for SCI-IO are described in [Eu.Doc.45]. | | EUIO-422 | Object Text: The functional requirements for SCI-IO are described in [Eu.Doc.45] . a_JIRA_BL4R3: EUIO-422 |
| Eu.SCI-IO.PDI.54 | Head | 3 Telegrams SCI-IO.PDI | | | |
| Eu.SCI-IO.PDI.55 | Info | This chapter defines the SCI-IO.PDI telegrams. | Basic IO | | |
| Eu.SCI-IO.PDI.56 | Head | 3.1 Telegram structure | | | |
| Eu.SCI-IO.PDI.213 | Info | The telegram structure is specified in [Eu.Doc.93]. | Basic IO | EUIO-422 | Object Text: The telegram structure is specified in [Eu.Doc.93] . a_JIRA_BL4R3: EUIO-422 |
| Eu.SCI-IO.PDI.64 | Head | 3.2 Sender and Receiver Identifier | | | |
| Eu.SCI-IO.PDI.214 | Info | The identification of communications partners is specified in [Eu.Doc.93]. | Basic IO | EUIO-422 | Object Text: The identification of communications partners is specified in [Eu.Doc.93] . a_JIRA_BL4R3: EUIO-422 |
| Eu.SCI-IO.PDI.70 | Head | 3.3 Message and command type overview | | | |
| Eu.SCI-IO.PDI.71 | Info | The following table shows permitted subsystem specific message types for the SCI-IO.PDI. The permitted generic message types are specified in [Eu.Doc.93]. | Basic IO | EUIO-422 | Object Text: The following table shows permitted subsystem specific message types for the SCI-IO.PDI. The permitted generic message types are specified in [Eu.Doc.93] . a_JIRA_BL4R3: |

| ID | Type | Requirement | | | | | Func. Pkg. | JIRA | V 4.0 (3.A) > V 4.0 (2.A) | | | | | | | | | | | | | | | | | | | | |
|--|--|--|-------------------------------------|---|--|--|--------------|----------|---|-------------------------------------|---------|--|--------|--|------------------------|--|--|--|------------------------|--|---|---|--------|------------------------|-------------------------------------|---|--|--|--------------------------|
| | | <table><tr><th>Message Type</th><th>Value</th><th>Sender</th><th>Receiver</th><th>Purpose</th></tr><tr><td><i>command</i> <i>Set Output Channels</i></td><td>0x0001</td><td>Subsystem – Electronic Interlocking</td><td>Subsystem – Generic IO</td><td>Switching command to set states at the Output Channels</td></tr><tr><td><i>message</i> <i>State Output Channels</i></td><td>0x0002</td><td>Subsystem – Generic IO</td><td>Subsystem – Electronic Interlocking</td><td>The current state of disturbance of the Output Channels</td></tr><tr><td><i>message</i> <i>State Input Channels</i></td><td>0x0003</td><td>Subsystem – Generic IO</td><td>Subsystem – Electronic Interlocking</td><td>The current state of the Input Channels</td></tr></table> | | | | | Message Type | Value | Sender | Receiver | Purpose | <i>command</i> <i>Set Output Channels</i> | 0x0001 | Subsystem – Electronic Interlocking | Subsystem – Generic IO | Switching command to set states at the Output Channels | <i>message</i> <i>State Output Channels</i> | 0x0002 | Subsystem – Generic IO | Subsystem – Electronic Interlocking | The current state of disturbance of the Output Channels | <i>message</i> <i>State Input Channels</i> | 0x0003 | Subsystem – Generic IO | Subsystem – Electronic Interlocking | The current state of the Input Channels | | | EUIO-422 |
| Message Type | Value | Sender | Receiver | Purpose | | | | | | | | | | | | | | | | | | | | | | | | | |
| <i>command</i> <i>Set Output Channels</i> | 0x0001 | Subsystem – Electronic Interlocking | Subsystem – Generic IO | Switching command to set states at the Output Channels | | | | | | | | | | | | | | | | | | | | | | | | | |
| <i>message</i> <i>State Output Channels</i> | 0x0002 | Subsystem – Generic IO | Subsystem – Electronic Interlocking | The current state of disturbance of the Output Channels | | | | | | | | | | | | | | | | | | | | | | | | | |
| <i>message</i> <i>State Input Channels</i> | 0x0003 | Subsystem – Generic IO | Subsystem – Electronic Interlocking | The current state of the Input Channels | | | | | | | | | | | | | | | | | | | | | | | | | |
| Eu.SCI-IO.PDI.72 | Head | 3.4 Telegram definitions | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Eu.SCI-IO.PDI.73 | Info | In this chapter, specific telegrams for SCI-IO.PDI are defined. The generic telegrams are defined in [Eu.Doc.93]. | | | | | Basic IO | EUIO-422 | Object Text: In this chapter, specific telegrams for SCI-IO.PDI are defined. The generic telegrams are defined in [Eu.Doc.93] . a_JIRA_BL4R3: EUIO-422 | | | | | | | | | | | | | | | | | | | | |
| Eu.SCI-IO.PDI.158 | Head | 3.4.1 Command "Set Output Channels" | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Eu.SCI-IO.PDI.159 | Info | With this telegram the Subsystem - Electronic Interlocking commands the Subsystem - Generic IO to set a given state at the Output Channels. This telegram refines the InformationFlow "Cd_Set_Output_Channels" specified in the requirements specification (ID Eu.IO.7962). | | | | | Basic IO | | | | | | | | | | | | | | | | | | | | | | |
| Eu.SCI-IO.PDI.161 | Info | Telegram definition for command "Set Output Channels" <table><tr><th>Byte-Nr.</th><th>Content</th></tr><tr><td>00</td><td>Protocol Type: 0x90 (1 Byte binary)</td></tr><tr><td>01..02</td><td>Message Type: 0x0001 (2 Bytes binary)</td></tr><tr><td>03..22</td><td>Sender Identifier (20 Bytes ISO IEC 8859-1:1998)</td></tr><tr><td>23..42</td><td>Receiver Identifier (20 Bytes ISO IEC 8859-1:1998)</td></tr><tr><td>43</td><td>Number k of following channels (1 Byte binary)</td></tr><tr><td>44.. 44+k-1</td><td>State of channel n (each 1 Byte binary) (1 <= n <= k)</td></tr></table> | | | | | Byte-Nr. | Content | 00 | Protocol Type: 0x90 (1 Byte binary) | 01..02 | Message Type: 0x0001 (2 Bytes binary) | 03..22 | Sender Identifier (20 Bytes ISO IEC 8859-1:1998) | 23..42 | Receiver Identifier (20 Bytes ISO IEC 8859-1:1998) | 43 | Number k of following channels (1 Byte binary) | 44.. 44+k-1 | State of channel n (each 1 Byte binary) (1 <= n <= k) | Basic IO | | | | | | | | |
| Byte-Nr. | Content | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 00 | Protocol Type: 0x90 (1 Byte binary) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 01..02 | Message Type: 0x0001 (2 Bytes binary) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 03..22 | Sender Identifier (20 Bytes ISO IEC 8859-1:1998) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 23..42 | Receiver Identifier (20 Bytes ISO IEC 8859-1:1998) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 43 | Number k of following channels (1 Byte binary) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 44.. 44+k-1 | State of channel n (each 1 Byte binary) (1 <= n <= k) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Eu.SCI-IO.PDI.160 | Req | Permitted values for command "Set Output Channels": | | | | | Basic IO | | | | | | | | | | | | | | | | | | | | | | |
| Eu.SCI-IO.PDI.162 | Req | Message Type The message bytes 1 - 2 shall be set to 0x0001. | | | | | Basic IO | | | | | | | | | | | | | | | | | | | | | | |
| Eu.SCI-IO.PDI.163 | Req | Sender Identifier The message bytes 3 - 22 shall contain the technical identifier of the Subsystem - Electronic Interlocking according to ID Eu.SCI-XX.PDI.59 in ISO IEC 8859-1:1998 format. | | | | | Basic IO | | | | | | | | | | | | | | | | | | | | | | |
| Eu.SCI-IO.PDI.165 | Req | Receiver Identifier The message bytes 23 - 42 shall contain the operational identifier of the Adjacent IO System according to ID Eu.SCI-XX.PDI.59 in ISO IEC 8859-1:1998 format. | | | | | Basic IO | | | | | | | | | | | | | | | | | | | | | | |
| Eu.SCI-IO.PDI.164 | Req | Number k of following channels The message byte 43 contains the number k of below-given statuses for Output Channels, transmitted in single bytes. Maximum, 51 Output Channels can be commanded, therefore, the highest permitted value for byte 43 is 0x33. | | | | | Basic IO | | | | | | | | | | | | | | | | | | | | | | |

| ID | Type | Requirement | Func. Pkg. | JIRA | V 4.0 (3.A) > V 4.0 (2.A) | | | | | | | | | | | | | | |
|-------------------|--|--|-----------------|---------|---------------------------|-------------------------------------|--------|---------------------------------------|--------|--|--------|--|----|--|-------------|--|----------|--|--|
| Eu.SCI-IO.PDI.166 | Req | State of channel n The message bytes 44..44+k-1 (1 <= n <= k) contain the target states of the particular Output Channel n. Permitted values: Value meaning ----- ----- | Basic IO | | | | | | | | | | | | | | | | |
| Eu.SCI-IO.PDI.168 | Req | 0x01 Channel Switched Off | Basic IO | | | | | | | | | | | | | | | | |
| Eu.SCI-IO.PDI.169 | Req | 0x02 Channel Switched On | Basic IO | | | | | | | | | | | | | | | | |
| Eu.SCI-IO.PDI.227 | Req | 0x03 Channel Flashing | Option flashing | | | | | | | | | | | | | | | | |
| Eu.SCI-IO.PDI.170 | Head | 3.4.2 Message "State Of Output Channels" | | | | | | | | | | | | | | | | | |
| Eu.SCI-IO.PDI.172 | Info | With this telegram the Subsystem - Generic IO reports the status related to disturbance of the Output Channels to the Subsystem - Electronic Interlocking. This telegram refines the InformationFlow "Msg_State_Of_Output_Channels" specified in the requirements specification (ID Eu.IO.7964). | Basic IO | | | | | | | | | | | | | | | | |
| Eu.SCI-IO.PDI.173 | Info | Telegram definition for message "State Of Output Channels" <table><tr><th>Byte-Nr.</th><th>Content</th></tr><tr><td>00</td><td>Protocol Type: 0x90 (1 Byte binary)</td></tr><tr><td>01..02</td><td>Message Type: 0x0002 (2 Bytes binary)</td></tr><tr><td>03..22</td><td>Sender Identifier (20 Bytes ISO IEC 8859-1:1998)</td></tr><tr><td>23..42</td><td>Receiver Identifier (20 Bytes ISO IEC 8859-1:1998)</td></tr><tr><td>43</td><td>Number k of following channels (1 Byte binary)</td></tr><tr><td>44.. 44+k-1</td><td>Disturbance of channel n (each 1 Byte binary) (1 <= n <= k)</td></tr></table> | Byte-Nr. | Content | 00 | Protocol Type: 0x90 (1 Byte binary) | 01..02 | Message Type: 0x0002 (2 Bytes binary) | 03..22 | Sender Identifier (20 Bytes ISO IEC 8859-1:1998) | 23..42 | Receiver Identifier (20 Bytes ISO IEC 8859-1:1998) | 43 | Number k of following channels (1 Byte binary) | 44.. 44+k-1 | Disturbance of channel n (each 1 Byte binary) (1 <= n <= k) | Basic IO | | |
| Byte-Nr. | Content | | | | | | | | | | | | | | | | | | |
| 00 | Protocol Type: 0x90 (1 Byte binary) | | | | | | | | | | | | | | | | | | |
| 01..02 | Message Type: 0x0002 (2 Bytes binary) | | | | | | | | | | | | | | | | | | |
| 03..22 | Sender Identifier (20 Bytes ISO IEC 8859-1:1998) | | | | | | | | | | | | | | | | | | |
| 23..42 | Receiver Identifier (20 Bytes ISO IEC 8859-1:1998) | | | | | | | | | | | | | | | | | | |
| 43 | Number k of following channels (1 Byte binary) | | | | | | | | | | | | | | | | | | |
| 44.. 44+k-1 | Disturbance of channel n (each 1 Byte binary) (1 <= n <= k) | | | | | | | | | | | | | | | | | | |
| Eu.SCI-IO.PDI.171 | Req | Permitted values for message "State Of Output Channels": | Basic IO | | | | | | | | | | | | | | | | |
| Eu.SCI-IO.PDI.175 | Req | Message Type The message bytes 1 - 2 shall be set to 0x0002. | Basic IO | | | | | | | | | | | | | | | | |
| Eu.SCI-IO.PDI.176 | Req | Sender Identifier The message bytes 3 - 22 shall contain the operational identifier of the Adjacent IO System according to ID Eu.SCI-XX.PDI.59 in ISO IEC 8859-1:1998 format. | Basic IO | | | | | | | | | | | | | | | | |
| Eu.SCI-IO.PDI.177 | Req | Receiver Identifier The message bytes 23 - 42 shall contain the technical identifier of the Subsystem - Electronic Interlocking according to ID Eu.SCI-XX.PDI.59 in ISO IEC 8859-1:1998 format. | Basic IO | | | | | | | | | | | | | | | | |
| Eu.SCI-IO.PDI.178 | Req | Number k of following channels The message byte 43 contains the number k of below-given statuses for Output Channels, transmitted in single bytes. Maximum, 51 Output Channels can be commanded, therefore, the highest permitted value for byte 43 is 0x33. | Basic IO | | | | | | | | | | | | | | | | |
| Eu.SCI-IO.PDI.179 | Req | Disturbance of channel n The message bytes 44..44+k-1 (1 <= n <= k) contain the current states of disturbance of the particular Output Channel n. Permitted values: Value meaning ----- ----- | Basic IO | | | | | | | | | | | | | | | | |
| Eu.SCI-IO.PDI.180 | Req | 0x01 Channel Not Physically Disturbed | Basic IO | | | | | | | | | | | | | | | | |

| ID | Type | Requirement | Func. Pkg. | JIRA | V 4.0 (3.A) > V 4.0 (2.A) | | | | | | | | | | | | | | |
|-------------------|--|---|------------|---------|---------------------------|-------------------------------------|--------|---------------------------------------|--------|--|--------|--|----|--|-------------|--|----------|--|--|
| Eu.SCI-IO.PDI.181 | Req | 0x02 Channel Physically Disturbed | Basic IO | | | | | | | | | | | | | | | | |
| Eu.SCI-IO.PDI.184 | Head | 3.4.3 Message "State Of Input Channels" | | | | | | | | | | | | | | | | | |
| Eu.SCI-IO.PDI.186 | Info | With this telegram the Subsystem - Generic IO reports the current state of the Input Channels to the Subsystem - Electronic Interlocking. This telegram refines the InformationFlow "Msg_State_Of_Input_Channels" specified in the requirements specification (ID Eu.IO.7963). | Basic IO | | | | | | | | | | | | | | | | |
| Eu.SCI-IO.PDI.187 | Info | Telegram definition for message "State Of Input Channels" <table><tr><th>Byte-Nr.</th><th>Content</th></tr><tr><td>00</td><td>Protocol Type: 0x90 (1 Byte binary)</td></tr><tr><td>01..02</td><td>Message Type: 0x0003 (2 Bytes binary)</td></tr><tr><td>03..22</td><td>Sender Identifier (20 Bytes ISO IEC 8859-1:1998)</td></tr><tr><td>23..42</td><td>Receiver Identifier (20 Bytes ISO IEC 8859-1:1998)</td></tr><tr><td>43</td><td>Number k of following channels (1 Byte binary)</td></tr><tr><td>44.. 44+k-1</td><td>State of channel n (each 1 Byte binary) (1 <= n <= k)</td></tr></table> | Byte-Nr. | Content | 00 | Protocol Type: 0x90 (1 Byte binary) | 01..02 | Message Type: 0x0003 (2 Bytes binary) | 03..22 | Sender Identifier (20 Bytes ISO IEC 8859-1:1998) | 23..42 | Receiver Identifier (20 Bytes ISO IEC 8859-1:1998) | 43 | Number k of following channels (1 Byte binary) | 44.. 44+k-1 | State of channel n (each 1 Byte binary) (1 <= n <= k) | Basic IO | | |
| Byte-Nr. | Content | | | | | | | | | | | | | | | | | | |
| 00 | Protocol Type: 0x90 (1 Byte binary) | | | | | | | | | | | | | | | | | | |
| 01..02 | Message Type: 0x0003 (2 Bytes binary) | | | | | | | | | | | | | | | | | | |
| 03..22 | Sender Identifier (20 Bytes ISO IEC 8859-1:1998) | | | | | | | | | | | | | | | | | | |
| 23..42 | Receiver Identifier (20 Bytes ISO IEC 8859-1:1998) | | | | | | | | | | | | | | | | | | |
| 43 | Number k of following channels (1 Byte binary) | | | | | | | | | | | | | | | | | | |
| 44.. 44+k-1 | State of channel n (each 1 Byte binary) (1 <= n <= k) | | | | | | | | | | | | | | | | | | |
| Eu.SCI-IO.PDI.188 | Req | Permitted values for message "State Of Input Channels": | Basic IO | | | | | | | | | | | | | | | | |
| Eu.SCI-IO.PDI.189 | Req | Message Type The message bytes 1 - 2 shall be set to 0x0003. | Basic IO | | | | | | | | | | | | | | | | |
| Eu.SCI-IO.PDI.190 | Req | Sender Identifier The message bytes 3 - 22 have to contain the operational identifier of the Adjacent IO System according to ID Eu.SCI-XX.PDI.59 in ISO IEC 8859-1:1998 format. | Basic IO | | | | | | | | | | | | | | | | |
| Eu.SCI-IO.PDI.191 | Req | Receiver Identifier The message bytes 23 - 42 shall contain the technical identifier of the Subsystem - Electronic Interlocking according to ID Eu.SCI-XX.PDI.59 in ISO IEC 8859-1:1998 format. | Basic IO | | | | | | | | | | | | | | | | |
| Eu.SCI-IO.PDI.192 | Req | Number k of following channels The message byte 43 contains the number k of below-given statuses for Input Channels, transmitted in single bytes. Maximum, 51 Input Channels can be supervised, therefore, the highest permitted value for byte 43 is 0x33. | Basic IO | | | | | | | | | | | | | | | | |
| Eu.SCI-IO.PDI.193 | Req | State of channel n The message bytes 44..44+k-1 (1 <= n <= k) contain the current states of the particular Input Channel n. Permitted values: Value meaning ----- ----- | Basic IO | | | | | | | | | | | | | | | | |
| Eu.SCI-IO.PDI.195 | Req | 0x01 Channel Switched Off | Basic IO | | | | | | | | | | | | | | | | |
| Eu.SCI-IO.PDI.196 | Req | 0x02 Channel Switched On | Basic IO | | | | | | | | | | | | | | | | |
| Eu.SCI-IO.PDI.197 | Req | 0x03 Channel Disturbed | Basic IO | | | | | | | | | | | | | | | | |