

## SIPLUS RIC IEC on S7

### Interoperability list IEC 60870-5-103 Master V1.5



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**Disclaimer**

We have checked the content of this printed document in accordance with the hardware and software described. Nevertheless, the risk of deviations cannot be excluded completely, which is why we do not accept liability for complete conformity. The details provided in this printed document are checked on a regular basis, however, and any corrections necessary are included in subsequent editions. We would be happy to receive your suggestions for improvement.

Technical data subject to change.

## IEC60870-5-103

This documentation is used to match the functionality required/demanded for communication with SIMATIC S7-300, SIMATIC S7-400 or SIMATIC ET200S devices based on telecommunication standard IEC 60870-5-103.

### General information

Legend:



Not implemented



Implemented

### 1. Physical Layer

(network specific parameter; all implemented configurations are marked with ,X')



Electrical Interface RS-485



Optical Interface\*

\*) The optical interface can be realized by external media converter.

#### Transmission speed

Same transmission speed for control direction and monitoring direction.

Asymmetrical interface  
RS485/RS422



9600 bits/s



19200 bits/s

The available transmission rates depend on the used CP and interface module.

## 2. Application Layer

### ASDUs in monitoring direction

Type-ID	
<input checked="" type="checkbox"/>	<1> := Time tagged message
<input checked="" type="checkbox"/>	<2> := Time-tagged message with relative time
<input checked="" type="checkbox"/>	<3> := Measurands I
<input checked="" type="checkbox"/>	<4> := Time-tagged measurands with relative time
<input checked="" type="checkbox"/>	<5> := Identification message
<input checked="" type="checkbox"/>	<6> := Time synchronization
<input checked="" type="checkbox"/>	<8> := Termination of general interrogation
<input checked="" type="checkbox"/>	<9> := Measurands II
<input type="checkbox"/>	<10> := Generic Data
<input type="checkbox"/>	<11> := Generic identification
<input type="checkbox"/>	<23> := List of recorded disturbances
<input type="checkbox"/>	<26> := Ready for transmission of disturbance data
<input type="checkbox"/>	<27> := Ready for transmission of a channel
<input type="checkbox"/>	<28> := Ready for transmission of tags
<input type="checkbox"/>	<29> := Transmission of tags
<input type="checkbox"/>	<30> := Transmission of disturbance values
<input type="checkbox"/>	<31> := End of Transmission

### ASDUs in control direction

Type-ID	
<input checked="" type="checkbox"/>	<6> := Time synchronization
<input checked="" type="checkbox"/>	<7> := Initiation of general interrogation
<input type="checkbox"/>	<10> := Generic data
<input checked="" type="checkbox"/>	<20> := General Command
<input type="checkbox"/>	<21> := Generic Command
<input type="checkbox"/>	<24> := Order for disturbance data transmission
<input type="checkbox"/>	<25> := Acknowledgement for disturbance data transmission

### Basic application functions

<input type="checkbox"/>	Test mode
<input type="checkbox"/>	Blocking of monitoring direction
<input type="checkbox"/>	Disturbance data
<input type="checkbox"/>	Generic services
<input checked="" type="checkbox"/>	Private data (only Type-ID 140, Measurands SIMEAS T)

### 3. Protection devices

- |                                     |                                       |                     |
|-------------------------------------|---------------------------------------|---------------------|
| <input checked="" type="checkbox"/> | - Distance Protection                 | (function type 128) |
| <input checked="" type="checkbox"/> | - Over current protection             | (function type 160) |
| <input checked="" type="checkbox"/> | - Transformer differential protection | (function type 176) |
| <input checked="" type="checkbox"/> | - Linie differential protection       | (function type 192) |

Private defined information with respect to chapter 2 can be supported.  
Every information is parameterized individually.  
A catalogue with pre defined information is not planned.