# SIPROTEC

# I/O-Box 6MD61

Communication module

PROFIBUS-DP
Bus mapping



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The information in this manual is checked periodically, and necessary corrections will be included in future editions.
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# Preface

**Purpose of this manual**

This manual describes the data in the PROFIBUS-DP messages of the SIPROTEC device 6MD61 and is devided into the following topics:

- Data of the PROFIBUS-DP messages → Chapter 1,
- Standard mapping 3-1 → Chapter 2,
- Standard mapping 3-2 → Chapter 3,
- Standard mapping 3-3 → Chapter 4,
- Standard mapping 3-4 → Chapter 5,
- Standard mapping 3-5 → Chapter 6,
- Standard mapping 3-6 → Chapter 7.

General details about the function, operation, assembly and commissioning of the SIPROTEC devices you find in the

- SIPROTEC4 System Manual, order no. E50417–H1176–C151.

**PROFIBUS-DP communication profile documentation**

The following additional manual informs you about the data types, bus specific parameters and hardware inteface of the PROFIBUS-DP slave modul of the SIPROTEC devices:

| Manual | Order number |
|---|---|
| SIPROTEC Communication module, PROFIBUS-DP - Communication profile | C53000-L1840-B001-03 |

**PROFIBUS-DP specification**

The PROFIBUS-DP specification and the structure of the PROFIBUS-DP messages are defined in the European Standard EN 50170:

- PROFIBUS Specification
  Normative Parts of PROFIBUS-FMS, -DP, -PA
  According to the European Standard
  EN 50170, Volume 2
  PROFIBUS Nutzerorganisation e.V.

**Validity**

This manual is valid for the SIPROTEC device:

- 6MD61 (firmware version 4.00 or higher)

with

- PROFIBUS-DP communication module version 04.02.02 or higher.

*Note:*

Only PROFIBUS communication modules from HW-Rev. 4 (ref. to “PROFIBUS-DP communication profile documentation”) may be used with the 6MD61 devices.

For device parameterization have to be used:

- DIGSI 4.60 or higher,
- PROFIBUS-DP standard mappings 3-1 to 3-n
  (n = device type dependent number of standard mappings).

**Additional Support**

For questions regarding SIPROTEC4 devices, please contact your Siemens representative.

**Training courses**

Individual course offerings may be found in our Training Catalog and questions can be directed to our Training Centre. Please contact your Siemens representative.

**Target audience**

Protection engineers, commissioning engineers, personnel concerned with adjustment, checking and service of selective protective equipment, automatic and control facilities and personnel of electrical facilities and power plants.

## Warning!

Hazardous voltages are present in this electrical equipment during operation. Non-observance of the safety rules can result in severe personal injury or property damage.

Only qualified personnel shall work on and around this equipment after becoming thoroughly familiar with all warnings and safety notices of this and the associated manuals as well as with the applicable safety regulations.

The successful and safe operation of this device is dependent on proper transport and storage, proper handling, installation, operation, and maintenance by qualified personnel under observance of all warnings and hints contained in this and the associated manuals.

In particular the general erection and safety regulations (e.g. IEC, EN, DIN, VDE, or other national and international standards) regarding the correct use of high-voltage installations must observed. Non-observance can result in death, personal injury or substantial property damage.

*QUALIFIED PERSONNEL*

For the purpose of this manual and product labels, a qualified person is one who is familiar with the installation, construction and operation of the equipment and the hazards involved. In addition, he has the following qualifications:

- Is trained and authorized to energize, de-energize, clear, ground and tag circuits and equipment in accordance with established safety practices.
- Is trained in the proper care and use of protective equipment in accordance with established safety practices.
- Is trained in rendering first aid.

**Typographic and graphical conventions**

The following text formats are used to identify concepts giving device information described by the text flow:

**`Parameter names`**, or identifiers for configuration or function parameters that appear in the device display or on the screen of a PC (with DIGSI) are shown in mono-script (same point size) bold text. This also applies to header bars for selection menus.

***`Parameter conditions`***, or possible settings of parameters that appear in the device display or on the screen of a PC (with DIGSI), are additionally shown in italic style. This also applies to selection items for selection menus.

„`Annunciations`“, or identifiers for information produced by the device or required by other devices or from the switchgear is shown in mono-script (same point size) and placed into quotation marks.

For diagrams in which the identifier type results from the representation itself, text conventions may differ from the above-mentioned.

# Revision index

Listing of the changes between the editions of this manual:

| Modified chapters / pages | Edition | Reasons of modification |
|---|---|---|
| | 1.00.01 | First edition, Doc.-No.: C53000-L2140-A319-1<br>September 9th, 2005 |
| | | |

# Table of contents

# Data of the PROFIBUS-DP messages

# 1

This chapter delivers explanations to the data descriptions of the standard mapping as well as notes for evaluation of selected SIPROTEC objects and for the configuration of the standard mapping in the PROFIBUS-DP master.

## 1.1 Explanations

*Note:*

The examples shown in this chapter 1.1 do not necessarily correspond to the real allocation of the objects in the bus mapping.

Chapters 2 to 7 define the data area of the PROFIBUS-DP messages for data transfer between the PROFIBUS-DP slave of the SIPROTEC devices 6MD61 and the PROFIBUS-DP master.

The columns "Designation of the SIPROTEC objects" contain the names of the SIPROTEC objects for "US English" device language.

The listed SIPROTEC objects in the PROFIBUS-DP messages' data area are sorted after byte offset, beginning with 0.

**Variables with data type greater than or equal to 1 byte**

The offset defines the start of the most significant byte in the message, e.g.:

| Offset | Designation of the SIPROTEC objects | Comments | Scaling (32767 corresponds to...) | Internal object no. |
|---|---|---|---|---|
| 16 | Ia = | Current in phase A | 3276.7 A | 601 |

The measured value "Ia" is assigned to data byte 16 (most significant byte of the measured value) and data byte 17 (least significant byte of the measured value) in the PROFIBUS-DP message

**Bit variables (SP/SC, DP/DC)**

The offset indicates the byte which contains the bit value and the position of bit 0 of the bit variable, e.g. (input message):

| Offset | Designation of the SIPROTEC objects | Comments | Internal object no. |
|---|---|---|---|
| 0 / 0 | Breaker ON/OFF<br>OFF | Circuit breaker | - |
| 0 / 1 | Breaker ON/OFF<br>ON | | |

| Offset | Designation of the SIPROTEC objects | Comments | Internal object no. |
|---|---|---|---|
| 5 / 5 | Error Sum Alarm | 1 = Error with a summary alarm ON | 140 |

The checkback signal from the circuit breaker (as double-point indication) is located in data byte 0, bit position $2^0$ (bit 0) and $2^1$ (bit 1).

The single-point indication "Error Sum Alarm" is located in byte 5, bit position $2^5$.

*Note:*

In the manual "SIPROTEC Communication module, PROFIBUS-DP - Communication profile" (ref. to page 3) you find:

- Definition of the data types (single-point/double-point indication, measured value etc.),
- Description of the event list via PROFIBUS-DP (handshake bytes, message blocks etc.),
- Notes for parameterization in DIGSI.

## 1.2 Messages in output direction: PROFIBUS-DP master to the SIPROTEC device

The messages in PROFIBUS-DP output direction (ref to chap. 2.1, 3.1, 4.1, 5.1, 6.1 and 7.1) allow:

- command outputs through the output relays of the SIPROTEC devices .

*Note:*

- The allocation of the output relays to the switching devices and to the output channels is defined during parameterization of the SIPROTEC devices.
- Depending on the device composition there may be less than indicated output relays (and corresponding PROFIBUS-DP message positions) available in the SIPROTEC device.

## 1.3 Messages in input direction: SIPROTEC device to the PROFIBUS-DP master

The messages in PROFIBUS-DP input direction (ref. to chap. 2.2, 3.2, 4.2, 5.2, 6.2 and 7.2) allow:

- polling of binary inputs,
- transmission of measurands to the PROFIBUS-DP master.

### 1.3.1 Annunciations

*Note:*

- The allocation of the input channels to the binary inputs is defined during parameterization of the devices.
- Depending on the device composition and the existing protection packages not all of the indicated binary inputs or protection annunciations (and corresponding PROFIBUS-DP message positions) may be available in the SIPROTEC device.

### 1.3.2 Measured values

*Note:*

Depending on the device composition not all of the indicated analog inputs (and corresponding PROFIBUS-DP message positions) may be available in the SIPROTEC device.

The given default scaling values for the measured values in the standard mappings apply to installations where the nominal operating values are in the ranges given below:

Full Scale Voltage (parameter address 1101):

→ 1.01 ... 100.00 kV

Full Scale Current (parameter address 1102):

→ 10.01 ... 1000.00 A

*Note:*

Changes of the scaling of the measured values are possible in adaption of the concrete installation environment.
You find information about this in the manual “SIPROTEC Communication module, PROFIBUS-DP - Communication profile” (ref. to page 3).

## 1.4 Configuration data of the standard mappings

There are six standard mappings (standard mapping 3-1 to standard mapping 3-6) available for the SIPROTEC devices 6MD61 which differ in the data size of the PROFIBUS-DP messages.

**Standard mappings 3-1 and 3-2**

The *standard mappings 3-1 and 3-2* cover the number of binary inputs and relay outputs for the SIPROTEC devices 6MD611.
In addition to the standard mapping 3-1, the standard mapping 3-2 contains an event list for transmission of indications with time stamp.

*The standard mapping 3-1 contains:*

Output direction:

- 4 double commands
- 12 single commands

Input direction:

- 10 double-point indications
- 28 single-point indications

*The standard mapping 3-2 contains:*

Output direction:

- Handshake byte for event list via PROFIBUS-DP
- 4 double commands
- 12 single commands

Input direction:

- 10 double-point indications
- 28 single-point indications
- Handshake byte and three message blocks for event list via PROFIBUS-DP

**Standard mappings 3-3 and 3-4**

The *standard mappings 3-3 and 3-4* cover the number of binary inputs and relay outputs for the SIPROTEC devices 6MD612.
In addition to the standard mapping 3-3, the standard mapping 3-4 contains an event list for transmission of indications with time stamp.

*The standard mapping 3-3 contains:*

Output direction:

- 10 double commands
- 22 single commands

Input direction:

- 16 double-point indications
- 48 single-point indications
- 9 measured values (integer)

*The standard mapping 3-4 contains:*

Output direction:

- Handshake byte for event list via PROFIBUS-DP
- 10 double commands
- 22 single commands

Input direction:

- 16 double-point indications
- 48 single-point indications
- 9 measured values (integer)
- Handshake byte and three message blocks for event list via PROFIBUS-DP

**Standard mappings 3-5 and 3-6**

The *standard mappings 3-5 and 3-6* cover the number of binary inputs and relay outputs for the SIPROTEC devices 6MD613.
In addition to the standard mapping 3-5, the standard mapping 3-6 contains an event list for transmission of indications with time stamp.

*The standard mapping 3-5 contains:*

Output direction:

- 26 double commands
- 54 single commands

Input direction:

- 42 double-point indications
- 92 single-point indications

*The standard mapping 3-6 contains:*

Output direction:

- Handshake byte for event list via PROFIBUS-DP
- 26 double commands
- 54 single commands

Input direction:

- 42 double-point indications
- 92 single-point indications
- Handshake byte and three message blocks for event list via PROFIBUS-DP

**PROFIBUS-DP Configuration data**

*Standard mapping 3-1:* **15H 23H**
(6 bytes input-, 4 bytes output direction)

*Standard mapping 3-2:* **15H DFH 25H**
(38 bytes input-, 6 bytes output direction)

*Standard mapping 3-3:* **1FH 1BH 27H**
(28 bytes input-, 8 bytes output direction)

*Standard mapping 3-4:* **1FH 1BH DFH 29H**
(60 bytes input-, 10 bytes output direction)

*Standard mapping 3-5:* **1FH 15H 2FH 23H**
(22 bytes input-, 20 bytes output direction)

*Standard mapping 3-6:* **1FH 15H DFH 2FH 25H**
(54 bytes input-, 22 bytes output direction)

**PROFIBUS-DP master**

At the configuration of a PROFIBUS-DP slave of the SIPROTEC devices in the parameterization system of the PROFIBUS-DP master are to select the following modules for the 6MD61 standard mappings and to allocate associated addresses in the I/O addressing range of the PROFIBUS-DP master:

*Standard mapping 3-1:*

| Module | Order number | Input address | Output address |
|---|---|---|---|
| 0 | Input - 6 Bytes | Adr_Ix | |
| 1 | Output - 4 Bytes | | Adr_Ox |

*Standard mapping 3-2:*

| Module | Order number | Input address | Output address |
|---|---|---|---|
| 0 | Input - 6 Bytes | Adr_Ix | |
| 1 | Input - 16 Words, consistent | Adr_Ix + 6 | |
| 2 | Output - 6 Bytes | | Adr_Ox |

*Standard mapping 3-3:*

| Module | Order number | Input address | Output address |
|---|---|---|---|
| 0 | Input - 16 Bytes | Adr_Ix | |
| 1 | Input - 12 Bytes | Adr_Ix + 16 | |
| 2 | Output - 8 Bytes | | Adr_Ox |

*Standard mapping 3-4:*

| Module | Order number | Input address | Output address |
|---|---|---|---|
| 0 | Input - 16 Bytes | Adr_Ix | |
| 1 | Input - 12 Bytes | Adr_Ix + 16 | |
| 2 | Input - 16 Words, consistent | Adr_Ix + 28 | |
| 3 | Output - 10 Bytes | | Adr_Ox |

*Standard mapping 3-5:*

| Module | Order number | Input address | Output address |
|---|---|---|---|
| 0 | Input - 16 Bytes | Adr_Ix | |
| 1 | Input - 6 Bytes | Adr_Ix + 16 | |
| 2 | Output - 16 Bytes | | Adr_Ox |
| 3 | Output - 4 Bytes | | Adr_Ox + 16 |

*Standard mapping 3-6:*

| Module | Order number | Input address | Output address |
|---|---|---|---|
| 0 | Input - 16 Bytes | Adr_Ix | |
| 1 | Input - 6 Bytes | Adr_Ix + 16 | |
| 2 | Input - 16 Words, consistent | Adr_Ix + 22 | |
| 3 | Output - 16 Bytes | | Adr_Ox |
| 4 | Output - 6 Bytes | | Adr_Ox + 16 |

Addr_Ix and Addr_Ox indicate arbitrary (as a rule even) addresses in the I/O addressing range of the PROFIBUS-DP master.

Addr_Ix (base address of the inputs) is identical with offset 0 of the PROFIBUS-DP message data of the SIPROTEC device in input direction (ref. to chap. 2.2, 3.2, 4.2, 5.2, 6.2 and 7.2).

Addr_Ox (base address of the outputs) is identical with offset 0 of the PROFIBUS-DP message data of the SIPROTEC device in output direction (ref. to chap. 2.1, 3.1, 4.1, 5.1, 6.1 and 7.1).

# Standard mapping 3-1

# 2

This chapter describes the data in the PROFIBUS-DP messages between the PROFIBUS-DP master and the SIPROTEC devices 6MD61 if standard mapping 3-1 is selected.

# 2.1 Message in output direction

## 2.1.1 Double commands

- Double commands with double-point indications as checkback indication can be routed on these positions as “Source system interface” using the **DIGSI Configuration matrix**.

| Offset | Designation of the SIPROTEC objects | Comments | Internal object no. |
|---|---|---|---|
| 0 / 0 | <user-defined> OFF | not pre-allocated | - |
| 0 / 1 | <user-defined> ON | | |
| 0 / 2 | <user-defined> OFF | not pre-allocated | - |
| 0 / 3 | <user-defined> ON | | |
| 0 / 4 | <user-defined> OFF | not pre-allocated | - |
| 0 / 5 | <user-defined> ON | | |
| 0 / 6 | <user-defined> OFF | not pre-allocated | - |
| 0 / 7 | <user-defined> ON | | |

## 2.1.2 Single commands

- Single commands can be routed on these positions as “Source system interface” using the **DIGSI Configuration matrix**.

| Offset | Designation of the SIPROTEC objects | Comments | Internal object no. |
|---|---|---|---|
| 1 / 0 | <user-defined> OFF | not pre-allocated | - |
| 1 / 1 | <user-defined> ON | | |
| 1 / 2 | <user-defined> OFF | not pre-allocated | - |
| 1 / 3 | <user-defined> ON | | |
| 1 / 4 | <user-defined> OFF | not pre-allocated | - |
| 1 / 5 | <user-defined> ON | | |
| 1 / 6 | <user-defined> OFF | not pre-allocated | - |
| 1 / 7 | <user-defined> ON | | |
| 2 / 0 | <user-defined> OFF | not pre-allocated | - |
| 2 / 1 | <user-defined> ON | | |
| 2 / 2 | <user-defined> OFF | not pre-allocated | - |
| 2 / 3 | <user-defined> ON | | |
| 2 / 4 | <user-defined> OFF | not pre-allocated | - |
| 2 / 5 | <user-defined> ON | | |
| 2 / 6 | <user-defined> OFF | not pre-allocated | - |
| 2 / 7 | <user-defined> ON | | |

| Offset | Designation of the SIPROTEC objects | Comments | Internal object no. |
|---|---|---|---|
| 3 / 0 | <user-defined> OFF | not pre-allocated | - |
| 3 / 1 | <user-defined> ON | | |
| 3 / 2 | <user-defined> OFF | not pre-allocated | - |
| 3 / 3 | <user-defined> ON | | |
| 3 / 4 | <user-defined> OFF | not pre-allocated | - |
| 3 / 5 | <user-defined> ON | | |
| 3 / 6 | <user-defined> OFF | not pre-allocated | - |
| 3 / 7 | <user-defined> ON | | |

# 2.2 Message in input direction

## 2.2.1 Annunciations

### 2.2.1.1 Double-point indications

- Double-point indications (e.g. checkback indications of double commands) can be routed on these positions as “Destination system interface” using the **DIGSI Configuration matrix**.

| Offset | Designation of the SIPROTEC objects | Comments | Internal object no. |
|---|---|---|---|
| 0 / 0 | <user-defined> OFF | not pre-allocated | - |
| 0 / 1 | <user-defined> ON | | |
| 0 / 2 | <user-defined> OFF | not pre-allocated | - |
| 0 / 3 | <user-defined> ON | | |
| 0 / 4 | <user-defined> OFF | not pre-allocated | - |
| 0 / 5 | <user-defined> ON | | |
| 0 / 6 | <user-defined> OFF | not pre-allocated | - |
| 0 / 7 | <user-defined> ON | | |
| 1 / 0 | <user-defined> OFF | not pre-allocated | - |
| 1 / 1 | <user-defined> ON | | |
| 1 / 2 | <user-defined> OFF | not pre-allocated | - |
| 1 / 3 | <user-defined> ON | | |
| 1 / 4 | <user-defined> OFF | not pre-allocated | - |
| 1 / 5 | <user-defined> ON | | |
| 1 / 6 | <user-defined> OFF | not pre-allocated | - |
| 1 / 7 | <user-defined> ON | | |
| 2 / 0 | <user-defined> OFF | not pre-allocated | - |
| 2 / 1 | <user-defined> ON | | |
| 2 / 2 | <user-defined> OFF | not pre-allocated | - |
| 2 / 3 | <user-defined> ON | | |

### 2.2.1.2 Single-point indications

- Single-point indications can be routed on these positions as “Destination system interface” using the **DIGSI Configuration matrix**.

| Offset | Designation of the SIPROTEC objects | Comments | Internal object no. |
|---|---|---|---|
| 2 / 4 | <user-defined> | not pre-allocated | - |
| 2 / 5 | <user-defined> | not pre-allocated | - |

| Offset | Designation of the SIPROTEC objects | Comments | Internal object no. |
|---|---|---|---|
| 2 / 6 | <user-defined> | not pre-allocated | - |
| 2 / 7 | <user-defined> | not pre-allocated | - |
| 3 / 0 | <user-defined> | not pre-allocated | - |
| 3 / 1 | <user-defined> | not pre-allocated | - |
| 3 / 2 | <user-defined> | not pre-allocated | - |
| 3 / 3 | <user-defined> | not pre-allocated | - |
| 3 / 4 | <user-defined> | not pre-allocated | - |
| 3 / 5 | <user-defined> | not pre-allocated | - |
| 3 / 6 | <user-defined> | not pre-allocated | - |
| 3 / 7 | <user-defined> | not pre-allocated | - |
| 4 / 0 | <user-defined> | not pre-allocated | - |
| 4 / 1 | <user-defined> | not pre-allocated | - |
| 4 / 2 | <user-defined> | not pre-allocated | - |
| 4 / 3 | <user-defined> | not pre-allocated | - |
| 4 / 4 | <user-defined> | not pre-allocated | - |
| 4 / 5 | <user-defined> | not pre-allocated | - |
| 4 / 6 | <user-defined> | not pre-allocated | - |
| 4 / 7 | <user-defined> | not pre-allocated | - |
| 5 / 0 | <user-defined> | not pre-allocated | - |
| 5 / 1 | <user-defined> | not pre-allocated | - |
| 5 / 2 | <user-defined> | not pre-allocated | - |

#### 2.2.1.3 Diagnosis

| Offset | Designation of the SIPROTEC objects | Comments | Internal object no. |
|---|---|---|---|
| 5 / 3 | Device OK | 1 = Update of the device replica in the SIPROTEC device completed after initial start or restart | 51 |
| 5 / 4 | Settings Calc. | 1 = Settings calculation is running | 70 |
| 5 / 5 | Error Sum Alarm | 1 = Error with a summary alarm ON | 140 |
| 5 / 6 | Alarm Sum Event | 1 = Alarm summary event ON | 160 |
| 5 / 7 | Data valid | 1 = Data in the PROFIBUS-DP message are valid. (This indication is created by the PROFIBUS-DP slave; not available in DIGSI and not relocatable.) | - |

# Standard mapping 3-2

# 3

This chapter describes the data in the PROFIBUS-DP messages between the PROFIBUS-DP master and the SIPROTEC devices 6MD61 if standard mapping 3-2 is selected.

# 3.1 Message in output direction

## 3.1.1 Event list

- Information regarding the handshake bytes as well as the retrieval methods of the event list via PROFIBUS-DP can be found in the manual “SIPROTEC Communication module, PROFIBUS-DP - Communication profile”.

| Offset | Designation | Comments | Internal object no. |
|---|---|---|---|
| 0 | Control_O | Handshake byte for event list via PROFIBUS-DP | - |
| 1 | SPARE | reserved for future use<br>(the value at this position is ignored) | - |

## 3.1.2 Double commands

- Double commands with double-point indications as checkback indication can be routed on these positions as “Source system interface” using the **DIGSI Configuration matrix**.

| Offset | Designation of the SIPROTEC objects | Comments | Internal object no. |
|---|---|---|---|
| 2 / 0 | <user-defined> OFF | not pre-allocated | - |
| 2 / 1 | <user-defined> ON | | |
| 2 / 2 | <user-defined> OFF | not pre-allocated | - |
| 2 / 3 | <user-defined> ON | | |
| 2 / 4 | <user-defined> OFF | not pre-allocated | - |
| 2 / 5 | <user-defined> ON | | |
| 2 / 6 | <user-defined> OFF | not pre-allocated | - |
| 2 / 7 | <user-defined> ON | | |

## 3.1.3 Single commands

- Single commands can be routed on these positions as “Source system interface” using the **DIGSI Configuration matrix**.

| Offset | Designation of the SIPROTEC objects | Comments | Internal object no. |
|---|---|---|---|
| 3 / 0 | <user-defined> OFF | not pre-allocated | - |
| 3 / 1 | <user-defined> ON | | |
| 3 / 2 | <user-defined> OFF | not pre-allocated | - |
| 3 / 3 | <user-defined> ON | | |

| Offset | Designation of the SIPROTEC objects | Comments | Internal object no. |
|---|---|---|---|
| 3 / 4 | <user-defined> OFF | not pre-allocated | - |
| 3 / 5 | <user-defined> ON | | |
| 3 / 6 | <user-defined> OFF | not pre-allocated | - |
| 3 / 7 | <user-defined> ON | | |
| 4 / 0 | <user-defined> OFF | not pre-allocated | - |
| 4 / 1 | <user-defined> ON | | |
| 4 / 2 | <user-defined> OFF | not pre-allocated | - |
| 4 / 3 | <user-defined> ON | | |
| 4 / 4 | <user-defined> OFF | not pre-allocated | - |
| 4 / 5 | <user-defined> ON | | |
| 4 / 6 | <user-defined> OFF | not pre-allocated | - |
| 4 / 7 | <user-defined> ON | | |
| 5 / 0 | <user-defined> OFF | not pre-allocated | - |
| 5 / 1 | <user-defined> ON | | |
| 5 / 2 | <user-defined> OFF | not pre-allocated | - |
| 5 / 3 | <user-defined> ON | | |
| 5 / 4 | <user-defined> OFF | not pre-allocated | - |
| 5 / 5 | <user-defined> ON | | |
| 5 / 6 | <user-defined> OFF | not pre-allocated | - |
| 5 / 7 | <user-defined> ON | | |

# 3.2 Message in input direction

## 3.2.1 Annunciations

### 3.2.1.1 Double-point indications

- Double-point indications (e.g. checkback indications of double commands) can be routed on these positions as “Destination system interface” using the **DIGSI Configuration matrix**.

| Offset | Designation of the SIPROTEC objects | Comments | Internal object no. |
|---|---|---|---|
| 0 / 0 | <user-defined> OFF | not pre-allocated | - |
| 0 / 1 | <user-defined> ON | | |
| 0 / 2 | <user-defined> OFF | not pre-allocated | - |
| 0 / 3 | <user-defined> ON | | |
| 0 / 4 | <user-defined> OFF | not pre-allocated | - |
| 0 / 5 | <user-defined> ON | | |
| 0 / 6 | <user-defined> OFF | not pre-allocated | - |
| 0 / 7 | <user-defined> ON | | |
| 1 / 0 | <user-defined> OFF | not pre-allocated | - |
| 1 / 1 | <user-defined> ON | | |
| 1 / 2 | <user-defined> OFF | not pre-allocated | - |
| 1 / 3 | <user-defined> ON | | |
| 1 / 4 | <user-defined> OFF | not pre-allocated | - |
| 1 / 5 | <user-defined> ON | | |
| 1 / 6 | <user-defined> OFF | not pre-allocated | - |
| 1 / 7 | <user-defined> ON | | |
| 2 / 0 | <user-defined> OFF | not pre-allocated | - |
| 2 / 1 | <user-defined> ON | | |
| 2 / 2 | <user-defined> OFF | not pre-allocated | - |
| 2 / 3 | <user-defined> ON | | |

### 3.2.1.2 Single-point indications

- Single-point indications can be routed on these positions as “Destination system interface” using the **DIGSI Configuration matrix**.

| Offset | Designation of the SIPROTEC objects | Comments | Internal object no. |
|---|---|---|---|
| 2 / 4 | <user-defined> | not pre-allocated | - |
| 2 / 5 | <user-defined> | not pre-allocated | - |

| Offset | Designation of the SIPROTEC objects | Comments | Internal object no. |
|---|---|---|---|
| 2 / 6 | <user-defined> | not pre-allocated | - |
| 2 / 7 | <user-defined> | not pre-allocated | - |
| 3 / 0 | <user-defined> | not pre-allocated | - |
| 3 / 1 | <user-defined> | not pre-allocated | - |
| 3 / 2 | <user-defined> | not pre-allocated | - |
| 3 / 3 | <user-defined> | not pre-allocated | - |
| 3 / 4 | <user-defined> | not pre-allocated | - |
| 3 / 5 | <user-defined> | not pre-allocated | - |
| 3 / 6 | <user-defined> | not pre-allocated | - |
| 3 / 7 | <user-defined> | not pre-allocated | - |
| 4 / 0 | <user-defined> | not pre-allocated | - |
| 4 / 1 | <user-defined> | not pre-allocated | - |
| 4 / 2 | <user-defined> | not pre-allocated | - |
| 4 / 3 | <user-defined> | not pre-allocated | - |
| 4 / 4 | <user-defined> | not pre-allocated | - |
| 4 / 5 | <user-defined> | not pre-allocated | - |
| 4 / 6 | <user-defined> | not pre-allocated | - |
| 4 / 7 | <user-defined> | not pre-allocated | - |
| 5 / 0 | <user-defined> | not pre-allocated | - |
| 5 / 1 | <user-defined> | not pre-allocated | - |
| 5 / 2 | <user-defined> | not pre-allocated | - |

#### 3.2.1.3 Diagnosis

| Offset | Designation of the SIPROTEC objects | Comments | Internal object no. |
|---|---|---|---|
| 5 / 3 | Device OK | 1 = Update of the device replica in the SIPROTEC device completed after initial start or restart | 51 |
| 5 / 4 | Settings Calc. | 1 = Settings calculation is running | 70 |
| 5 / 5 | Error Sum Alarm | 1 = Error with a summary alarm ON | 140 |
| 5 / 6 | Alarm Sum Event | 1 = Alarm summary event ON | 160 |
| 5 / 7 | Data valid | 1 = Data in the PROFIBUS-DP message are valid. (This indication is created by the PROFIBUS-DP slave; not available in DIGSI and not relocatable.) | - |

### 3.2.2 Event list

- Information regarding the handshake bytes as well as the retrieval methods of the event list via PROFIBUS-DP can be found in the manual “SIPROTEC Communication module, PROFIBUS-DP - Communication profile”.

| Offset | Designation of the SIPROTEC objects | Comments | Internal object no. |
|---|---|---|---|
| 6 | Control_I | Handshake byte for event list via PROFIBUS-DP | - |
| 7 | SPARE | reserved for future use<br>(the value 0 is transmitted at this position) | - |
| 8 | Message block #1 | Identification #1 | - |
| 9 | | Value #1 | |
| 10<br>-<br>17 | | Time stamp #1 | |
| 18 | Message block #2 | Identification #2 | - |
| 19 | | Value #2 | |
| 20<br>-<br>27 | | Time stamp #2 | |
| 28 | Message block #3 | Identification #3 | - |
| 29 | | Value #3 | |
| 30<br>-<br>37 | | Time stamp #3 | |

# Standard mapping 3-3

# 4

This chapter describes the data in the PROFIBUS-DP messages between the PROFIBUS-DP master and the SIPROTEC devices 6MD61 if standard mapping 3-3 is selected.

# 4.1 Message in output direction

## 4.1.1 Double commands

- Double commands with double-point indications as checkback indication can be routed on these positions as “Source system interface” using the **DIGSI Configuration matrix**.

| Offset | Designation of the SIPROTEC objects | Comments | Internal object no. |
|---|---|---|---|
| 0 / 0 | <user-defined> OFF | not pre-allocated | - |
| 0 / 1 | <user-defined> ON | | |
| 0 / 2 | <user-defined> OFF | not pre-allocated | - |
| 0 / 3 | <user-defined> ON | | |
| 0 / 4 | <user-defined> OFF | not pre-allocated | - |
| 0 / 5 | <user-defined> ON | | |
| 0 / 6 | <user-defined> OFF | not pre-allocated | - |
| 0 / 7 | <user-defined> ON | | |
| 1 / 0 | <user-defined> OFF | not pre-allocated | - |
| 1 / 1 | <user-defined> ON | | |
| 1 / 2 | <user-defined> OFF | not pre-allocated | - |
| 1 / 3 | <user-defined> ON | | |
| 1 / 4 | <user-defined> OFF | not pre-allocated | - |
| 1 / 5 | <user-defined> ON | | |
| 1 / 6 | <user-defined> OFF | not pre-allocated | - |
| 1 / 7 | <user-defined> ON | | |
| 2 / 0 | <user-defined> OFF | not pre-allocated | - |
| 2 / 1 | <user-defined> ON | | |
| 2 / 2 | <user-defined> OFF | not pre-allocated | - |
| 2 / 3 | <user-defined> ON | | |

### 4.1.2 Single commands

- Single commands can be routed on these positions as “Source system interface” using the **DIGSI Configuration matrix**.

| Offset | Designation of the SIPROTEC objects | Comments | Internal object no. |
|---|---|---|---|
| 2 / 4 | <user-defined> OFF | not pre-allocated | - |
| 2 / 5 | <user-defined> ON | | |
| 2 / 6 | <user-defined> OFF | not pre-allocated | - |
| 2 / 7 | <user-defined> ON | | |
| 3 / 0 | <user-defined> OFF | not pre-allocated | - |
| 3 / 1 | <user-defined> ON | | |
| 3 / 2 | <user-defined> OFF | not pre-allocated | - |
| 3 / 3 | <user-defined> ON | | |
| 3 / 4 | <user-defined> OFF | not pre-allocated | - |
| 3 / 5 | <user-defined> ON | | |
| 3 / 6 | <user-defined> OFF | not pre-allocated | - |
| 3 / 7 | <user-defined> ON | | |
| 4 / 0 | <user-defined> OFF | not pre-allocated | - |
| 4 / 1 | <user-defined> ON | | |
| 4 / 2 | <user-defined> OFF | not pre-allocated | - |
| 4 / 3 | <user-defined> ON | | |
| 4 / 4 | <user-defined> OFF | not pre-allocated | - |
| 4 / 5 | <user-defined> ON | | |
| 4 / 6 | <user-defined> OFF | not pre-allocated | - |
| 4 / 7 | <user-defined> ON | | |
| 5 / 0 | <user-defined> OFF | not pre-allocated | - |
| 5 / 1 | <user-defined> ON | | |
| 5 / 2 | <user-defined> OFF | not pre-allocated | - |
| 5 / 3 | <user-defined> ON | | |
| 5 / 4 | <user-defined> OFF | not pre-allocated | - |
| 5 / 5 | <user-defined> ON | | |
| 5 / 6 | <user-defined> OFF | not pre-allocated | - |
| 5 / 7 | <user-defined> ON | | |
| 6 / 0 | <user-defined> OFF | not pre-allocated | - |
| 6 / 1 | <user-defined> ON | | |
| 6 / 2 | <user-defined> OFF | not pre-allocated | - |
| 6 / 3 | <user-defined> ON | | |
| 6 / 4 | <user-defined> OFF | not pre-allocated | - |
| 6 / 5 | <user-defined> ON | | |

| Offset | Designation of the SIPROTEC objects | Comments | Internal object no. |
|---|---|---|---|
| 6 / 6 | <user-defined> OFF | not pre-allocated | - |
| 6 / 7 | <user-defined> ON | | |
| 7 / 0 | <user-defined> OFF | not pre-allocated | - |
| 7 / 1 | <user-defined> ON | | |
| 7 / 2 | <user-defined> OFF | not pre-allocated | - |
| 7 / 3 | <user-defined> ON | | |
| 7 / 4 | <user-defined> OFF | not pre-allocated | - |
| 7 / 5 | <user-defined> ON | | |
| 7 / 6 | <user-defined> OFF | not pre-allocated | - |
| 7 / 7 | <user-defined> ON | | |

# 4.2 Message in input direction

## 4.2.1 Annunciations

### 4.2.1.1 Double-point indications

- Double-point indications (e.g. checkback indications of double commands) can be routed on these positions as “Destination system interface” using the **DIGSI Configuration matrix**.

| Offset | Designation of the SIPROTEC objects | Comments | Internal object no. |
|---|---|---|---|
| 0 / 0 | <user-defined> OFF | not pre-allocated | - |
| 0 / 1 | <user-defined> ON | | |
| 0 / 2 | <user-defined> OFF | not pre-allocated | - |
| 0 / 3 | <user-defined> ON | | |
| 0 / 4 | <user-defined> OFF | not pre-allocated | - |
| 0 / 5 | <user-defined> ON | | |
| 0 / 6 | <user-defined> OFF | not pre-allocated | - |
| 0 / 7 | <user-defined> ON | | |
| 1 / 0 | <user-defined> OFF | not pre-allocated | - |
| 1 / 1 | <user-defined> ON | | |
| 1 / 2 | <user-defined> OFF | not pre-allocated | - |
| 1 / 3 | <user-defined> ON | | |
| 1 / 4 | <user-defined> OFF | not pre-allocated | - |
| 1 / 5 | <user-defined> ON | | |
| 1 / 6 | <user-defined> OFF | not pre-allocated | - |
| 1 / 7 | <user-defined> ON | | |
| 2 / 0 | <user-defined> OFF | not pre-allocated | - |
| 2 / 1 | <user-defined> ON | | |
| 2 / 2 | <user-defined> OFF | not pre-allocated | - |
| 2 / 3 | <user-defined> ON | | |
| 2 / 4 | <user-defined> OFF | not pre-allocated | - |
| 2 / 5 | <user-defined> ON | | |
| 2 / 6 | <user-defined> OFF | not pre-allocated | - |
| 2 / 7 | <user-defined> ON | | |
| 3 / 0 | <user-defined> OFF | not pre-allocated | - |
| 3 / 1 | <user-defined> ON | | |
| 3 / 2 | <user-defined> OFF | not pre-allocated | - |
| 3 / 3 | <user-defined> ON | | |

| Offset | Designation of the SIPROTEC objects | Comments | Internal object no. |
|---|---|---|---|
| 3 / 4 | <user-defined> OFF | not pre-allocated | - |
| 3 / 5 | <user-defined> ON | | |
| 3 / 6 | <user-defined> OFF | not pre-allocated | - |
| 3 / 7 | <user-defined> ON | | |

#### 4.2.1.2 Single-point indications

- Single-point indications can be routed on these positions as “Destination system interface” using the **`DIGSI Configuration matrix`**.

| Offset | Designation of the SIPROTEC objects | Comments | Internal object no. |
|---|---|---|---|
| 4 / 0 | <user-defined> | not pre-allocated | - |
| 4 / 1 | <user-defined> | not pre-allocated | - |
| 4 / 2 | <user-defined> | not pre-allocated | - |
| 4 / 3 | <user-defined> | not pre-allocated | - |
| 4 / 4 | <user-defined> | not pre-allocated | - |
| 4 / 5 | <user-defined> | not pre-allocated | - |
| 4 / 6 | <user-defined> | not pre-allocated | - |
| 4 / 7 | <user-defined> | not pre-allocated | - |
| 5 / 0 | <user-defined> | not pre-allocated | - |
| 5 / 1 | <user-defined> | not pre-allocated | - |
| 5 / 2 | <user-defined> | not pre-allocated | - |
| 5 / 3 | <user-defined> | not pre-allocated | - |
| 5 / 4 | <user-defined> | not pre-allocated | - |
| 5 / 5 | <user-defined> | not pre-allocated | - |
| 5 / 6 | <user-defined> | not pre-allocated | - |
| 5 / 7 | <user-defined> | not pre-allocated | - |
| 6 / 0 | <user-defined> | not pre-allocated | - |
| 6 / 1 | <user-defined> | not pre-allocated | - |
| 6 / 2 | <user-defined> | not pre-allocated | - |
| 6 / 3 | <user-defined> | not pre-allocated | - |
| 6 / 4 | <user-defined> | not pre-allocated | - |
| 6 / 5 | <user-defined> | not pre-allocated | - |
| 6 / 6 | <user-defined> | not pre-allocated | - |
| 6 / 7 | <user-defined> | not pre-allocated | - |
| 7 / 0 | <user-defined> | not pre-allocated | - |
| 7 / 1 | <user-defined> | not pre-allocated | - |
| 7 / 2 | <user-defined> | not pre-allocated | - |

| Offset | Designation of the SIPROTEC objects | Comments | Internal object no. |
|---|---|---|---|
| 7 / 3 | <user-defined> | not pre-allocated | - |
| 7 / 4 | <user-defined> | not pre-allocated | - |
| 7 / 5 | <user-defined> | not pre-allocated | - |
| 7 / 6 | <user-defined> | not pre-allocated | - |
| 7 / 7 | <user-defined> | not pre-allocated | - |
| 8 / 0 | <user-defined> | not pre-allocated | - |
| 8 / 1 | <user-defined> | not pre-allocated | - |
| 8 / 2 | <user-defined> | not pre-allocated | - |
| 8 / 3 | <user-defined> | not pre-allocated | - |
| 8 / 4 | <user-defined> | not pre-allocated | - |
| 8 / 5 | <user-defined> | not pre-allocated | - |
| 8 / 6 | <user-defined> | not pre-allocated | - |
| 8 / 7 | <user-defined> | not pre-allocated | - |
| 9 / 0 | <user-defined> | not pre-allocated | - |
| 9 / 1 | <user-defined> | not pre-allocated | - |
| 9 / 2 | <user-defined> | not pre-allocated | - |

#### 4.2.1.3 Diagnosis

| Offset | Designation of the SIPROTEC objects | Comments | Internal object no. |
|---|---|---|---|
| 9 / 3 | Device OK | 1 = Update of the device replica in the SIPROTEC device completed after initial start or restart | 51 |
| 9 / 4 | Settings Calc. | 1 = Settings calculation is running | 70 |
| 9 / 5 | Error Sum Alarm | 1 = Error with a summary alarm ON | 140 |
| 9 / 6 | Alarm Sum Event | 1 = Alarm summary event ON | 160 |
| 9 / 7 | Data valid | 1 = Data in the PROFIBUS-DP message are valid. (This indication is created by the PROFIBUS-DP slave; not available in DIGSI and not relocatable.) | - |

### 4.2.2 Measured values

- Ref. to chap.1.3.2 for additional notes regarding scaling of measured values.

| Offset | Designation of the SIPROTEC objects | Comments | Scaling (32767 corresponds to ...) | Internal object no. |
|---|---|---|---|---|
| 10 | Va = | Va | 327.67 kV | 621 |
| 12 | Vb = | Vb | 327.67 kV | 622 |
| 14 | Vc = | Vc | 327.67 kV | 623 |
| 16 | Ia = | Ia | 3276.7 A | 601 |
| 18 | Ib = | Ib | 3276.7 A | 602 |
| 20 | Ic = | Ic | 3276.7 A | 603 |
| 22 | In = | In | 3276.7 A | 604 |
| 24 | Td1= | Transducer 1 (0...20 mA) | 327.67 mA | 996 |
| 26 | Td2 = | Transducer 2 (0...20 mA) | 327.67 mA | 997 |

# Standard mapping 3-4

# 5

This chapter describes the data in the PROFIBUS-DP messages between the PROFIBUS-DP master and the SIPROTEC devices 6MD61 if standard mapping 3-4 is selected.

# 5.1 Message in output direction

## 5.1.1 Event list

- Information regarding the handshake bytes as well as the retrieval methods of the event list via PROFIBUS-DP can be found in the manual “SIPROTEC Communication module, PROFIBUS-DP - Communication profile”.

| Offset | Designation | Comments | Internal object no. |
|---|---|---|---|
| 0 | Control_O | Handshake byte for event list via PROFIBUS-DP | - |
| 1 | SPARE | reserved for future use<br>(the value at this position is ignored) | - |

## 5.1.2 Double commands

- Double commands with double-point indications as checkback indication can be routed on these positions as “Source system interface” using the **DIGSI Configuration matrix**.

| Offset | Designation of the SIPROTEC objects | Comments | Internal object no. |
|---|---|---|---|
| 2 / 0 | <user-defined> OFF | not pre-allocated | - |
| 2 / 1 | <user-defined> ON | | |
| 2 / 2 | <user-defined> OFF | not pre-allocated | - |
| 2 / 3 | <user-defined> ON | | |
| 2 / 4 | <user-defined> OFF | not pre-allocated | - |
| 2 / 5 | <user-defined> ON | | |
| 2 / 6 | <user-defined> OFF | not pre-allocated | - |
| 2 / 7 | <user-defined> ON | | |
| 3 / 0 | <user-defined> OFF | not pre-allocated | - |
| 3 / 1 | <user-defined> ON | | |
| 3 / 2 | <user-defined> OFF | not pre-allocated | - |
| 3 / 3 | <user-defined> ON | | |
| 3 / 4 | <user-defined> OFF | not pre-allocated | - |
| 3 / 5 | <user-defined> ON | | |
| 3 / 6 | <user-defined> OFF | not pre-allocated | - |
| 3 / 7 | <user-defined> ON | | |
| 4 / 0 | <user-defined> OFF | not pre-allocated | - |
| 4 / 1 | <user-defined> ON | | |
| 4 / 2 | <user-defined> OFF | not pre-allocated | - |
| 4 / 3 | <user-defined> ON | | |

### 5.1.3 Single commands

- Single commands can be routed on these positions as “Source system interface” using the **DIGSI Configuration matrix**.

| Offset | Designation of the SIPROTEC objects | Comments | Internal object no. |
|---|---|---|---|
| 4 / 4 | <user-defined> OFF | not pre-allocated | - |
| 4 / 5 | <user-defined> ON | | |
| 4 / 6 | <user-defined> OFF | not pre-allocated | - |
| 4 / 7 | <user-defined> ON | | |
| 5 / 0 | <user-defined> OFF | not pre-allocated | - |
| 5 / 1 | <user-defined> ON | | |
| 5 / 2 | <user-defined> OFF | not pre-allocated | - |
| 5 / 3 | <user-defined> ON | | |
| 5 / 4 | <user-defined> OFF | not pre-allocated | - |
| 5 / 5 | <user-defined> ON | | |
| 5 / 6 | <user-defined> OFF | not pre-allocated | - |
| 5 / 7 | <user-defined> ON | | |
| 6 / 0 | <user-defined> OFF | not pre-allocated | - |
| 6 / 1 | <user-defined> ON | | |
| 6 / 2 | <user-defined> OFF | not pre-allocated | - |
| 6 / 3 | <user-defined> ON | | |
| 6 / 4 | <user-defined> OFF | not pre-allocated | - |
| 6 / 5 | <user-defined> ON | | |
| 6 / 6 | <user-defined> OFF | not pre-allocated | - |
| 6 / 7 | <user-defined> ON | | |
| 7 / 0 | <user-defined> OFF | not pre-allocated | - |
| 7 / 1 | <user-defined> ON | | |
| 7 / 2 | <user-defined> OFF | not pre-allocated | - |
| 7 / 3 | <user-defined> ON | | |
| 7 / 4 | <user-defined> OFF | not pre-allocated | - |
| 7 / 5 | <user-defined> ON | | |
| 7 / 6 | <user-defined> OFF | not pre-allocated | - |
| 7 / 7 | <user-defined> ON | | |
| 8 / 0 | <user-defined> OFF | not pre-allocated | - |
| 8 / 1 | <user-defined> ON | | |
| 8 / 2 | <user-defined> OFF | not pre-allocated | - |
| 8 / 3 | <user-defined> ON | | |
| 8 / 4 | <user-defined> OFF | not pre-allocated | - |
| 8 / 5 | <user-defined> ON | | |

| Offset | Designation of the SIPROTEC objects | Comments | Internal object no. |
|---|---|---|---|
| 8 / 6 | <user-defined> OFF | not pre-allocated | - |
| 8 / 7 | <user-defined> ON | | |
| 9 / 0 | <user-defined> OFF | not pre-allocated | - |
| 9 / 1 | <user-defined> ON | | |
| 9 / 2 | <user-defined> OFF | not pre-allocated | - |
| 9 / 3 | <user-defined> ON | | |
| 9 / 4 | <user-defined> OFF | not pre-allocated | - |
| 9 / 5 | <user-defined> ON | | |
| 9 / 6 | <user-defined> OFF | not pre-allocated | - |
| 9 / 7 | <user-defined> ON | | |

# 5.2 Message in input direction

## 5.2.1 Annunciations

### 5.2.1.1 Double-point indications

- Double-point indications (e.g. checkback indications of double commands) can be routed on these positions as “Destination system interface” using the **DIGSI Configuration matrix**.

| Offset | Designation of the SIPROTEC objects | Comments | Internal object no. |
|---|---|---|---|
| 0 / 0 | <user-defined> OFF | not pre-allocated | - |
| 0 / 1 | <user-defined> ON | | |
| 0 / 2 | <user-defined> OFF | not pre-allocated | - |
| 0 / 3 | <user-defined> ON | | |
| 0 / 4 | <user-defined> OFF | not pre-allocated | - |
| 0 / 5 | <user-defined> ON | | |
| 0 / 6 | <user-defined> OFF | not pre-allocated | - |
| 0 / 7 | <user-defined> ON | | |
| 1 / 0 | <user-defined> OFF | not pre-allocated | - |
| 1 / 1 | <user-defined> ON | | |
| 1 / 2 | <user-defined> OFF | not pre-allocated | - |
| 1 / 3 | <user-defined> ON | | |
| 1 / 4 | <user-defined> OFF | not pre-allocated | - |
| 1 / 5 | <user-defined> ON | | |
| 1 / 6 | <user-defined> OFF | not pre-allocated | - |
| 1 / 7 | <user-defined> ON | | |
| 2 / 0 | <user-defined> OFF | not pre-allocated | - |
| 2 / 1 | <user-defined> ON | | |
| 2 / 2 | <user-defined> OFF | not pre-allocated | - |
| 2 / 3 | <user-defined> ON | | |
| 2 / 4 | <user-defined> OFF | not pre-allocated | - |
| 2 / 5 | <user-defined> ON | | |
| 2 / 6 | <user-defined> OFF | not pre-allocated | - |
| 2 / 7 | <user-defined> ON | | |
| 3 / 0 | <user-defined> OFF | not pre-allocated | - |
| 3 / 1 | <user-defined> ON | | |
| 3 / 2 | <user-defined> OFF | not pre-allocated | - |
| 3 / 3 | <user-defined> ON | | |

| Offset | Designation of the SIPROTEC objects | Comments | Internal object no. |
|---|---|---|---|
| 3 / 4 | <user-defined> OFF | not pre-allocated | - |
| 3 / 5 | <user-defined> ON | | |
| 3 / 6 | <user-defined> OFF | not pre-allocated | - |
| 3 / 7 | <user-defined> ON | | |

#### 5.2.1.2 Single-point indications

- Single-point indications can be routed on these positions as “Destination system interface” using the **`DIGSI Configuration matrix`**.

| Offset | Designation of the SIPROTEC objects | Comments | Internal object no. |
|---|---|---|---|
| 4 / 0 | <user-defined> | not pre-allocated | - |
| 4 / 1 | <user-defined> | not pre-allocated | - |
| 4 / 2 | <user-defined> | not pre-allocated | - |
| 4 / 3 | <user-defined> | not pre-allocated | - |
| 4 / 4 | <user-defined> | not pre-allocated | - |
| 4 / 5 | <user-defined> | not pre-allocated | - |
| 4 / 6 | <user-defined> | not pre-allocated | - |
| 4 / 7 | <user-defined> | not pre-allocated | - |
| 5 / 0 | <user-defined> | not pre-allocated | - |
| 5 / 1 | <user-defined> | not pre-allocated | - |
| 5 / 2 | <user-defined> | not pre-allocated | - |
| 5 / 3 | <user-defined> | not pre-allocated | - |
| 5 / 4 | <user-defined> | not pre-allocated | - |
| 5 / 5 | <user-defined> | not pre-allocated | - |
| 5 / 6 | <user-defined> | not pre-allocated | - |
| 5 / 7 | <user-defined> | not pre-allocated | - |
| 6 / 0 | <user-defined> | not pre-allocated | - |
| 6 / 1 | <user-defined> | not pre-allocated | - |
| 6 / 2 | <user-defined> | not pre-allocated | - |
| 6 / 3 | <user-defined> | not pre-allocated | - |
| 6 / 4 | <user-defined> | not pre-allocated | - |
| 6 / 5 | <user-defined> | not pre-allocated | - |
| 6 / 6 | <user-defined> | not pre-allocated | - |
| 6 / 7 | <user-defined> | not pre-allocated | - |
| 7 / 0 | <user-defined> | not pre-allocated | - |
| 7 / 1 | <user-defined> | not pre-allocated | - |
| 7 / 2 | <user-defined> | not pre-allocated | - |

| Offset | Designation of the SIPROTEC objects | Comments | Internal object no. |
|---|---|---|---|
| 7 / 3 | <user-defined> | not pre-allocated | - |
| 7 / 4 | <user-defined> | not pre-allocated | - |
| 7 / 5 | <user-defined> | not pre-allocated | - |
| 7 / 6 | <user-defined> | not pre-allocated | - |
| 7 / 7 | <user-defined> | not pre-allocated | - |
| 8 / 0 | <user-defined> | not pre-allocated | - |
| 8 / 1 | <user-defined> | not pre-allocated | - |
| 8 / 2 | <user-defined> | not pre-allocated | - |
| 8 / 3 | <user-defined> | not pre-allocated | - |
| 8 / 4 | <user-defined> | not pre-allocated | - |
| 8 / 5 | <user-defined> | not pre-allocated | - |
| 8 / 6 | <user-defined> | not pre-allocated | - |
| 8 / 7 | <user-defined> | not pre-allocated | - |
| 9 / 0 | <user-defined> | not pre-allocated | - |
| 9 / 1 | <user-defined> | not pre-allocated | - |
| 9 / 2 | <user-defined> | not pre-allocated | - |

#### 5.2.1.3 Diagnosis

| Offset | Designation of the SIPROTEC objects | Comments | Internal object no. |
|---|---|---|---|
| 9 / 3 | Device OK | 1 = Update of the device replica in the SIPROTEC device completed after initial start or restart | 51 |
| 9 / 4 | Settings Calc. | 1 = Settings calculation is running | 70 |
| 9 / 5 | Error Sum Alarm | 1 = Error with a summary alarm ON | 140 |
| 9 / 6 | Alarm Sum Event | 1 = Alarm summary event ON | 160 |
| 9 / 7 | Data valid | 1 = Data in the PROFIBUS-DP message are valid. (This indication is created by the PROFIBUS-DP slave; not available in DIGSI and not relocatable.) | - |

## 5.2.2 Measured values

- Ref. to chap.1.3.2 for additional notes regarding scaling of measured values.

| Offset | Designation of the SIPROTEC objects | Comments | Scaling (32767 corresponds to ...) | Internal object no. |
|---|---|---|---|---|
| 10 | Va = | Va | 327.67 kV | 621 |
| 12 | Vb = | Vb | 327.67 kV | 622 |
| 14 | Vc = | Vc | 327.67 kV | 623 |
| 16 | Ia = | Ia | 3276.7 A | 601 |
| 18 | Ib = | Ib | 3276.7 A | 602 |
| 20 | Ic = | Ic | 3276.7 A | 603 |
| 22 | In = | In | 3276.7 A | 604 |
| 24 | Td1= | Transducer 1 (0...20 mA) | 327.67 mA | 996 |
| 26 | Td2 = | Transducer 2 (0...20 mA) | 327.67 mA | 997 |

### 5.2.3 Event list

- Information regarding the handshake bytes as well as the retrieval methods of the event list via PROFIBUS-DP can be found in the manual “SIPROTEC Communication module, PROFIBUS-DP - Communication profile”.

| Offset | Designation of the SIPROTEC objects | Comments | Internal object no. |
|---|---|---|---|
| 27 | Control_I | Handshake byte for event list via PROFIBUS-DP | - |
| 28 | SPARE | reserved for future use<br>(the value 0 is transmitted at this position) | - |
| 29 | Message block #1 | Identification #1 | - |
| 30 | | Value #1 | |
| 31<br>-<br>39 | | Time stamp #1 | |
| 40 | Message block #2 | Identification #2 | - |
| 41 | | Value #2 | |
| 42<br>-<br>49 | | Time stamp #2 | |
| 50 | Message block #3 | Identification #3 | - |
| 51 | | Value #3 | |
| 52<br>-<br>59 | | Time stamp #3 | |

# Standard mapping 3-5

# 6

This chapter describes the data in the PROFIBUS-DP messages between the PROFIBUS-DP master and the SIPROTEC devices 6MD61 if standard mapping 3-5 is selected.

# 6.1 Message in output direction

## 6.1.1 Double commands

- Double commands with double-point indications as checkback indication can be routed on these positions as “Source system interface” using the **DIGSI Configuration matrix**.

| Offset | Designation of the SIPROTEC objects | Comments | Internal object no. |
|---|---|---|---|
| 0 / 0 | <user-defined> OFF | not pre-allocated | - |
| 0 / 1 | <user-defined> ON | | |
| 0 / 2 | <user-defined> OFF | not pre-allocated | - |
| 0 / 3 | <user-defined> ON | | |
| 0 / 4 | <user-defined> OFF | not pre-allocated | - |
| 0 / 5 | <user-defined> ON | | |
| 0 / 6 | <user-defined> OFF | not pre-allocated | - |
| 0 / 7 | <user-defined> ON | | |
| 1 / 0 | <user-defined> OFF | not pre-allocated | - |
| 1 / 1 | <user-defined> ON | | |
| 1 / 2 | <user-defined> OFF | not pre-allocated | - |
| 1 / 3 | <user-defined> ON | | |
| 1 / 4 | <user-defined> OFF | not pre-allocated | - |
| 1 / 5 | <user-defined> ON | | |
| 1 / 6 | <user-defined> OFF | not pre-allocated | - |
| 1 / 7 | <user-defined> ON | | |
| 2 / 0 | <user-defined> OFF | not pre-allocated | - |
| 2 / 1 | <user-defined> ON | | |
| 2 / 2 | <user-defined> OFF | not pre-allocated | - |
| 2 / 3 | <user-defined> ON | | |
| 2 / 4 | <user-defined> OFF | not pre-allocated | - |
| 2 / 5 | <user-defined> ON | | |
| 2 / 6 | <user-defined> OFF | not pre-allocated | - |
| 2 / 7 | <user-defined> ON | | |
| 3 / 0 | <user-defined> OFF | not pre-allocated | - |
| 3 / 1 | <user-defined> ON | | |
| 3 / 2 | <user-defined> OFF | not pre-allocated | - |
| 3 / 3 | <user-defined> ON | | |
| 3 / 4 | <user-defined> OFF | not pre-allocated | - |
| 3 / 5 | <user-defined> ON | | |

| Offset | Designation of the SIPROTEC objects | Comments | Internal object no. |
|---|---|---|---|
| 3 / 6 | <user-defined> OFF | not pre-allocated | - |
| 3 / 7 | <user-defined> ON | | |
| 4 / 0 | <user-defined> OFF | not pre-allocated | - |
| 4 / 1 | <user-defined> ON | | |
| 4 / 2 | <user-defined> OFF | not pre-allocated | - |
| 4 / 3 | <user-defined> ON | | |
| 4 / 4 | <user-defined> OFF | not pre-allocated | - |
| 4 / 5 | <user-defined> ON | | |
| 4 / 6 | <user-defined> OFF | not pre-allocated | - |
| 4 / 7 | <user-defined> ON | | |
| 5 / 0 | <user-defined> OFF | not pre-allocated | - |
| 5 / 1 | <user-defined> ON | | |
| 5 / 2 | <user-defined> OFF | not pre-allocated | - |
| 5 / 3 | <user-defined> ON | | |
| 5 / 4 | <user-defined> OFF | not pre-allocated | - |
| 5 / 5 | <user-defined> ON | | |
| 5 / 6 | <user-defined> OFF | not pre-allocated | - |
| 5 / 7 | <user-defined> ON | | |
| 6 / 0 | <user-defined> OFF | not pre-allocated | - |
| 6 / 1 | <user-defined> ON | | |
| 6 / 2 | <user-defined> OFF | not pre-allocated | - |
| 6 / 3 | <user-defined> ON | | |

## 6.1.2 Single commands

- Single commands can be routed on these positions as “Source system interface” using the **`DIGSI Configuration matrix`**.

| Offset | Designation of the SIPROTEC objects | Comments | Internal object no. |
|---|---|---|---|
| 6 / 4 | <user-defined> OFF | not pre-allocated | - |
| 6 / 5 | <user-defined> ON | | |
| 6 / 6 | <user-defined> OFF | not pre-allocated | - |
| 6 / 7 | <user-defined> ON | | |
| 7 / 0 | <user-defined> OFF | not pre-allocated | - |
| 7 / 1 | <user-defined> ON | | |
| 7 / 2 | <user-defined> OFF | not pre-allocated | - |
| 7 / 3 | <user-defined> ON | | |

| Offset | Designation of the SIPROTEC objects | Comments | Internal object no. |
|---|---|---|---|
| 7 / 4 | <user-defined> OFF | not pre-allocated | - |
| 7 / 5 | <user-defined> ON | | |
| 7 / 6 | <user-defined> OFF | not pre-allocated | - |
| 7 / 7 | <user-defined> ON | | |
| 8 / 0 | <user-defined> OFF | not pre-allocated | - |
| 8 / 1 | <user-defined> ON | | |
| 8 / 2 | <user-defined> OFF | not pre-allocated | - |
| 8 / 3 | <user-defined> ON | | |
| 8 / 4 | <user-defined> OFF | not pre-allocated | - |
| 8 / 5 | <user-defined> ON | | |
| 8 / 6 | <user-defined> OFF | not pre-allocated | - |
| 8 / 7 | <user-defined> ON | | |
| 9 / 0 | <user-defined> OFF | not pre-allocated | - |
| 9 / 1 | <user-defined> ON | | |
| 9 / 2 | <user-defined> OFF | not pre-allocated | - |
| 9 / 3 | <user-defined> ON | | |
| 9 / 4 | <user-defined> OFF | not pre-allocated | - |
| 9 / 5 | <user-defined> ON | | |
| 9 / 6 | <user-defined> OFF | not pre-allocated | - |
| 9 / 7 | <user-defined> ON | | |
| 10 / 0 | <user-defined> OFF | not pre-allocated | - |
| 10 / 1 | <user-defined> ON | | |
| 10 / 2 | <user-defined> OFF | not pre-allocated | - |
| 10 / 3 | <user-defined> ON | | |
| 10 / 4 | <user-defined> OFF | not pre-allocated | - |
| 10 / 5 | <user-defined> ON | | |
| 10 / 6 | <user-defined> OFF | not pre-allocated | - |
| 10 / 7 | <user-defined> ON | | |
| 11 / 0 | <user-defined> OFF | not pre-allocated | - |
| 11 / 1 | <user-defined> ON | | |
| 11 / 2 | <user-defined> OFF | not pre-allocated | - |
| 11 / 3 | <user-defined> ON | | |
| 11 / 4 | <user-defined> OFF | not pre-allocated | - |
| 11 / 5 | <user-defined> ON | | |
| 11 / 6 | <user-defined> OFF | not pre-allocated | - |
| 11 / 7 | <user-defined> ON | | |
| 12 / 0 | <user-defined> OFF | not pre-allocated | - |
| 12 / 1 | <user-defined> ON | | |

| Offset | Designation of the SIPROTEC objects | Comments | Internal object no. |
|---|---|---|---|
| 12 / 2 | <user-defined> OFF | not pre-allocated | - |
| 12 / 3 | <user-defined> ON | | |
| 12 / 4 | <user-defined> OFF | not pre-allocated | - |
| 12 / 5 | <user-defined> ON | | |
| 12 / 6 | <user-defined> OFF | not pre-allocated | - |
| 12 / 7 | <user-defined> ON | | |
| 13 / 0 | <user-defined> OFF | not pre-allocated | - |
| 13 / 1 | <user-defined> ON | | |
| 13 / 2 | <user-defined> OFF | not pre-allocated | - |
| 13 / 3 | <user-defined> ON | | |
| 13 / 4 | <user-defined> OFF | not pre-allocated | - |
| 13 / 5 | <user-defined> ON | | |
| 13 / 6 | <user-defined> OFF | not pre-allocated | - |
| 13 / 7 | <user-defined> ON | | |
| 14 / 0 | <user-defined> OFF | not pre-allocated | - |
| 14 / 1 | <user-defined> ON | | |
| 14 / 2 | <user-defined> OFF | not pre-allocated | - |
| 14 / 3 | <user-defined> ON | | |
| 14 / 4 | <user-defined> OFF | not pre-allocated | - |
| 14 / 5 | <user-defined> ON | | |
| 14 / 6 | <user-defined> OFF | not pre-allocated | - |
| 14 / 7 | <user-defined> ON | | |
| 15 / 0 | <user-defined> OFF | not pre-allocated | - |
| 15 / 1 | <user-defined> ON | | |
| 15 / 2 | <user-defined> OFF | not pre-allocated | - |
| 15 / 3 | <user-defined> ON | | |
| 15 / 4 | <user-defined> OFF | not pre-allocated | - |
| 15 / 5 | <user-defined> ON | | |
| 15 / 6 | <user-defined> OFF | not pre-allocated | - |
| 15 / 7 | <user-defined> ON | | |
| 16 / 0 | <user-defined> OFF | not pre-allocated | - |
| 16 / 1 | <user-defined> ON | | |
| 16 / 2 | <user-defined> OFF | not pre-allocated | - |
| 16 / 3 | <user-defined> ON | | |
| 16 / 4 | <user-defined> OFF | not pre-allocated | - |
| 16 / 5 | <user-defined> ON | | |
| 16 / 6 | <user-defined> OFF | not pre-allocated | - |
| 16 / 7 | <user-defined> ON | | |

| Offset | Designation of the SIPROTEC objects | Comments | Internal object no. |
|---|---|---|---|
| 17 / 0 | <user-defined> OFF | not pre-allocated | - |
| 17 / 1 | <user-defined> ON | | |
| 17 / 2 | <user-defined> OFF | not pre-allocated | - |
| 17 / 3 | <user-defined> ON | | |
| 17 / 4 | <user-defined> OFF | not pre-allocated | - |
| 17 / 5 | <user-defined> ON | | |
| 17 / 6 | <user-defined> OFF | not pre-allocated | - |
| 17 / 7 | <user-defined> ON | | |
| 18 / 0 | <user-defined> OFF | not pre-allocated | - |
| 18 / 1 | <user-defined> ON | | |
| 18 / 2 | <user-defined> OFF | not pre-allocated | - |
| 18 / 3 | <user-defined> ON | | |
| 18 / 4 | <user-defined> OFF | not pre-allocated | - |
| 18 / 5 | <user-defined> ON | | |
| 18 / 6 | <user-defined> OFF | not pre-allocated | - |
| 18 / 7 | <user-defined> ON | | |
| 19 / 0 | <user-defined> OFF | not pre-allocated | - |
| 19 / 1 | <user-defined> ON | | |
| 19 / 2 | <user-defined> OFF | not pre-allocated | - |
| 19 / 3 | <user-defined> ON | | |
| 19 / 4 | <user-defined> OFF | not pre-allocated | - |
| 19 / 5 | <user-defined> ON | | |
| 19 / 6 | <user-defined> OFF | not pre-allocated | - |
| 19 / 7 | <user-defined> ON | | |

# 6.2 Message in input direction

## 6.2.1 Annunciations

### 6.2.1.1 Double-point indications

- Double-point indications (e.g. checkback indications of double commands) can be routed on these positions as “Destination system interface” using the **DIGSI Configuration matrix**.

| Offset | Designation of the SIPROTEC objects | Comments | Internal object no. |
|---|---|---|---|
| 0 / 0 | <user-defined> OFF | not pre-allocated | - |
| 0 / 1 | <user-defined> ON | | |
| 0 / 2 | <user-defined> OFF | not pre-allocated | - |
| 0 / 3 | <user-defined> ON | | |
| 0 / 4 | <user-defined> OFF | not pre-allocated | - |
| 0 / 5 | <user-defined> ON | | |
| 0 / 6 | <user-defined> OFF | not pre-allocated | - |
| 0 / 7 | <user-defined> ON | | |
| 1 / 0 | <user-defined> OFF | not pre-allocated | - |
| 1 / 1 | <user-defined> ON | | |
| 1 / 2 | <user-defined> OFF | not pre-allocated | - |
| 1 / 3 | <user-defined> ON | | |
| 1 / 4 | <user-defined> OFF | not pre-allocated | - |
| 1 / 5 | <user-defined> ON | | |
| 1 / 6 | <user-defined> OFF | not pre-allocated | - |
| 1 / 7 | <user-defined> ON | | |
| 2 / 0 | <user-defined> OFF | not pre-allocated | - |
| 2 / 1 | <user-defined> ON | | |
| 2 / 2 | <user-defined> OFF | not pre-allocated | - |
| 2 / 3 | <user-defined> ON | | |
| 2 / 4 | <user-defined> OFF | not pre-allocated | - |
| 2 / 5 | <user-defined> ON | | |
| 2 / 6 | <user-defined> OFF | not pre-allocated | - |
| 2 / 7 | <user-defined> ON | | |
| 3 / 0 | <user-defined> OFF | not pre-allocated | - |
| 3 / 1 | <user-defined> ON | | |
| 3 / 2 | <user-defined> OFF | not pre-allocated | - |
| 3 / 3 | <user-defined> ON | | |

| Offset | Designation of the SIPROTEC objects | Comments | Internal object no. |
|---|---|---|---|
| 3 / 4 | <user-defined> OFF | not pre-allocated | - |
| 3 / 5 | <user-defined> ON | | |
| 3 / 6 | <user-defined> OFF | not pre-allocated | - |
| 3 / 7 | <user-defined> ON | | |
| 4 / 0 | <user-defined> OFF | not pre-allocated | - |
| 4 / 1 | <user-defined> ON | | |
| 4 / 2 | <user-defined> OFF | not pre-allocated | - |
| 4 / 3 | <user-defined> ON | | |
| 4 / 4 | <user-defined> OFF | not pre-allocated | - |
| 4 / 5 | <user-defined> ON | | |
| 4 / 6 | <user-defined> OFF | not pre-allocated | - |
| 4 / 7 | <user-defined> ON | | |
| 5 / 0 | <user-defined> OFF | not pre-allocated | - |
| 5 / 1 | <user-defined> ON | | |
| 5 / 2 | <user-defined> OFF | not pre-allocated | - |
| 5 / 3 | <user-defined> ON | | |
| 5 / 4 | <user-defined> OFF | not pre-allocated | - |
| 5 / 5 | <user-defined> ON | | |
| 5 / 6 | <user-defined> OFF | not pre-allocated | - |
| 5 / 7 | <user-defined> ON | | |
| 6 / 0 | <user-defined> OFF | not pre-allocated | - |
| 6 / 1 | <user-defined> ON | | |
| 6 / 2 | <user-defined> OFF | not pre-allocated | - |
| 6 / 3 | <user-defined> ON | | |
| 6 / 4 | <user-defined> OFF | not pre-allocated | - |
| 6 / 5 | <user-defined> ON | | |
| 6 / 6 | <user-defined> OFF | not pre-allocated | - |
| 6 / 7 | <user-defined> ON | | |
| 7 / 0 | <user-defined> OFF | not pre-allocated | - |
| 7 / 1 | <user-defined> ON | | |
| 7 / 2 | <user-defined> OFF | not pre-allocated | - |
| 7 / 3 | <user-defined> ON | | |
| 7 / 4 | <user-defined> OFF | not pre-allocated | - |
| 7 / 5 | <user-defined> ON | | |
| 7 / 6 | <user-defined> OFF | not pre-allocated | - |
| 7 / 7 | <user-defined> ON | | |
| 8 / 0 | <user-defined> OFF | not pre-allocated | - |
| 8 / 1 | <user-defined> ON | | |

| Offset | Designation of the SIPROTEC objects | Comments | Internal object no. |
|---|---|---|---|
| 8 / 2 | <user-defined> OFF | not pre-allocated | - |
| 8 / 3 | <user-defined> ON | | |
| 8 / 4 | <user-defined> OFF | not pre-allocated | - |
| 8 / 5 | <user-defined> ON | | |
| 8 / 6 | <user-defined> OFF | not pre-allocated | - |
| 8 / 7 | <user-defined> ON | | |
| 9 / 0 | <user-defined> OFF | not pre-allocated | - |
| 9 / 1 | <user-defined> ON | | |
| 9 / 2 | <user-defined> OFF | not pre-allocated | - |
| 9 / 3 | <user-defined> ON | | |
| 9 / 4 | <user-defined> OFF | not pre-allocated | - |
| 9 / 5 | <user-defined> ON | | |
| 9 / 6 | <user-defined> OFF | not pre-allocated | - |
| 9 / 7 | <user-defined> ON | | |
| 10 / 0 | <user-defined> OFF | not pre-allocated | - |
| 10 / 1 | <user-defined> ON | | |
| 10 / 2 | <user-defined> OFF | not pre-allocated | - |
| 10 / 3 | <user-defined> ON | | |

#### 6.2.1.2 Single-point indications

- Single-point indications can be routed on these positions as “Destination system interface” using the **`DIGSI Configuration matrix`**.

| Offset | Designation of the SIPROTEC objects | Comments | Internal object no. |
|---|---|---|---|
| 10 / 4 | <user-defined> | not pre-allocated | - |
| 10 / 5 | <user-defined> | not pre-allocated | - |
| 10 / 6 | <user-defined> | not pre-allocated | - |
| 10 / 7 | <user-defined> | not pre-allocated | - |
| 11 / 0 | <user-defined> | not pre-allocated | - |
| 11 / 1 | <user-defined> | not pre-allocated | - |
| 11 / 2 | <user-defined> | not pre-allocated | - |
| 11 / 3 | <user-defined> | not pre-allocated | - |
| 11 / 4 | <user-defined> | not pre-allocated | - |
| 11 / 5 | <user-defined> | not pre-allocated | - |
| 11 / 6 | <user-defined> | not pre-allocated | - |
| 11 / 7 | <user-defined> | not pre-allocated | - |
| 12 / 0 | <user-defined> | not pre-allocated | - |

| Offset | Designation of the SIPROTEC objects | Comments | Internal object no. |
|---|---|---|---|
| 12 / 1 | <user-defined> | not pre-allocated | - |
| 12 / 2 | <user-defined> | not pre-allocated | - |
| 12 / 3 | <user-defined> | not pre-allocated | - |
| 12 / 4 | <user-defined> | not pre-allocated | - |
| 12 / 5 | <user-defined> | not pre-allocated | - |
| 12 / 6 | <user-defined> | not pre-allocated | - |
| 12 / 7 | <user-defined> | not pre-allocated | - |
| 13 / 0 | <user-defined> | not pre-allocated | - |
| 13 / 1 | <user-defined> | not pre-allocated | - |
| 13 / 2 | <user-defined> | not pre-allocated | - |
| 13 / 3 | <user-defined> | not pre-allocated | - |
| 13 / 4 | <user-defined> | not pre-allocated | - |
| 13 / 5 | <user-defined> | not pre-allocated | - |
| 13 / 6 | <user-defined> | not pre-allocated | - |
| 13 / 7 | <user-defined> | not pre-allocated | - |
| 14 / 0 | <user-defined> | not pre-allocated | - |
| 14 / 1 | <user-defined> | not pre-allocated | - |
| 14 / 2 | <user-defined> | not pre-allocated | - |
| 14 / 3 | <user-defined> | not pre-allocated | - |
| 14 / 4 | <user-defined> | not pre-allocated | - |
| 14 / 5 | <user-defined> | not pre-allocated | - |
| 14 / 6 | <user-defined> | not pre-allocated | - |
| 14 / 7 | <user-defined> | not pre-allocated | - |
| 15 / 0 | <user-defined> | not pre-allocated | - |
| 15 / 1 | <user-defined> | not pre-allocated | - |
| 15 / 2 | <user-defined> | not pre-allocated | - |
| 15 / 3 | <user-defined> | not pre-allocated | - |
| 15 / 4 | <user-defined> | not pre-allocated | - |
| 15 / 5 | <user-defined> | not pre-allocated | - |
| 15 / 6 | <user-defined> | not pre-allocated | - |
| 15 / 7 | <user-defined> | not pre-allocated | - |
| 16 / 0 | <user-defined> | not pre-allocated | - |
| 16 / 1 | <user-defined> | not pre-allocated | - |
| 16 / 2 | <user-defined> | not pre-allocated | - |
| 16 / 3 | <user-defined> | not pre-allocated | - |
| 16 / 4 | <user-defined> | not pre-allocated | - |
| 16 / 5 | <user-defined> | not pre-allocated | - |
| 16 / 6 | <user-defined> | not pre-allocated | - |

| Offset | Designation of the SIPROTEC objects | Comments | Internal object no. |
|---|---|---|---|
| 16 / 7 | <user-defined> | not pre-allocated | - |
| 17 / 0 | <user-defined> | not pre-allocated | - |
| 17 / 1 | <user-defined> | not pre-allocated | - |
| 17 / 2 | <user-defined> | not pre-allocated | - |
| 17 / 3 | <user-defined> | not pre-allocated | - |
| 17 / 4 | <user-defined> | not pre-allocated | - |
| 17 / 5 | <user-defined> | not pre-allocated | - |
| 17 / 6 | <user-defined> | not pre-allocated | - |
| 17 / 7 | <user-defined> | not pre-allocated | - |
| 18 / 0 | <user-defined> | not pre-allocated | - |
| 18 / 1 | <user-defined> | not pre-allocated | - |
| 18 / 2 | <user-defined> | not pre-allocated | - |
| 18 / 3 | <user-defined> | not pre-allocated | - |
| 18 / 4 | <user-defined> | not pre-allocated | - |
| 18 / 5 | <user-defined> | not pre-allocated | - |
| 18 / 6 | <user-defined> | not pre-allocated | - |
| 18 / 7 | <user-defined> | not pre-allocated | - |
| 19 / 0 | <user-defined> | not pre-allocated | - |
| 19 / 1 | <user-defined> | not pre-allocated | - |
| 19 / 2 | <user-defined> | not pre-allocated | - |
| 19 / 3 | <user-defined> | not pre-allocated | - |
| 19 / 4 | <user-defined> | not pre-allocated | - |
| 19 / 5 | <user-defined> | not pre-allocated | - |
| 19 / 6 | <user-defined> | not pre-allocated | - |
| 19 / 7 | <user-defined> | not pre-allocated | - |
| 20 / 0 | <user-defined> | not pre-allocated | - |
| 20 / 1 | <user-defined> | not pre-allocated | - |
| 20 / 2 | <user-defined> | not pre-allocated | - |
| 20 / 3 | <user-defined> | not pre-allocated | - |
| 20 / 4 | <user-defined> | not pre-allocated | - |
| 20 / 5 | <user-defined> | not pre-allocated | - |
| 20 / 6 | <user-defined> | not pre-allocated | - |
| 20 / 7 | <user-defined> | not pre-allocated | - |
| 21 / 0 | <user-defined> | not pre-allocated | - |
| 21 / 1 | <user-defined> | not pre-allocated | - |
| 21 / 2 | <user-defined> | not pre-allocated | - |

#### 6.2.1.3 Diagnosis

| Offset | Designation of the SIPROTEC objects | Comments | Internal object no. |
|---|---|---|---|
| 21 / 3 | Device OK | 1 = Update of the device replica in the SIPROTEC device completed after initial start or restart | 51 |
| 21 / 4 | Settings Calc. | 1 = Settings calculation is running | 70 |
| 21 / 5 | Error Sum Alarm | 1 = Error with a summary alarm ON | 140 |
| 21 / 6 | Alarm Sum Event | 1 = Alarm summary event ON | 160 |
| 21 / 7 | Data valid | 1 = Data in the PROFIBUS-DP message are valid. (This indication is created by the PROFIBUS-DP slave; not available in DIGSI and not relocatable.) | - |

# Standard mapping 3-6

# 7

This chapter describes the data in the PROFIBUS-DP messages between the PROFIBUS-DP master and the SIPROTEC devices 6MD61 if standard mapping 3-6 is selected.

# 7.1 Message in output direction

## 7.1.1 Event list

- Information regarding the handshake bytes as well as the retrieval methods of the event list via PROFIBUS-DP can be found in the manual “SIPROTEC Communication module, PROFIBUS-DP - Communication profile”.

| Offset | Designation | Comments | Internal object no. |
|---|---|---|---|
| 0 | Control_O | Handshake byte for event list via PROFIBUS-DP | - |
| 1 | SPARE | reserved for future use<br>(the value at this position is ignored) | - |

## 7.1.2 Double commands

- Double commands with double-point indications as checkback indication can be routed on these positions as “Source system interface” using the **DIGSI Configuration matrix**.

| Offset | Designation of the SIPROTEC objects | Comments | Internal object no. |
|---|---|---|---|
| 2 / 0 | <user-defined> OFF | not pre-allocated | - |
| 2 / 1 | <user-defined> ON | | |
| 2 / 2 | <user-defined> OFF | not pre-allocated | - |
| 2 / 3 | <user-defined> ON | | |
| 2 / 4 | <user-defined> OFF | not pre-allocated | - |
| 2 / 5 | <user-defined> ON | | |
| 2 / 6 | <user-defined> OFF | not pre-allocated | - |
| 2 / 7 | <user-defined> ON | | |
| 3 / 0 | <user-defined> OFF | not pre-allocated | - |
| 3 / 1 | <user-defined> ON | | |
| 3 / 2 | <user-defined> OFF | not pre-allocated | - |
| 3 / 3 | <user-defined> ON | | |
| 3 / 4 | <user-defined> OFF | not pre-allocated | - |
| 3 / 5 | <user-defined> ON | | |
| 3 / 6 | <user-defined> OFF | not pre-allocated | - |
| 3 / 7 | <user-defined> ON | | |
| 4 / 0 | <user-defined> OFF | not pre-allocated | - |
| 4 / 1 | <user-defined> ON | | |
| 4 / 2 | <user-defined> OFF | not pre-allocated | - |
| 4 / 3 | <user-defined> ON | | |

| Offset | Designation of the SIPROTEC objects | Comments | Internal object no. |
|---|---|---|---|
| 4 / 4 | <user-defined> OFF | not pre-allocated | - |
| 4 / 5 | <user-defined> ON | | |
| 4 / 6 | <user-defined> OFF | not pre-allocated | - |
| 4 / 7 | <user-defined> ON | | |
| 5 / 0 | <user-defined> OFF | not pre-allocated | - |
| 5 / 1 | <user-defined> ON | | |
| 5 / 2 | <user-defined> OFF | not pre-allocated | - |
| 5 / 3 | <user-defined> ON | | |
| 5 / 4 | <user-defined> OFF | not pre-allocated | - |
| 5 / 5 | <user-defined> ON | | |
| 5 / 6 | <user-defined> OFF | not pre-allocated | - |
| 5 / 7 | <user-defined> ON | | |
| 6 / 0 | <user-defined> OFF | not pre-allocated | - |
| 6 / 1 | <user-defined> ON | | |
| 6 / 2 | <user-defined> OFF | not pre-allocated | - |
| 6 / 3 | <user-defined> ON | | |
| 6 / 4 | <user-defined> OFF | not pre-allocated | - |
| 6 / 5 | <user-defined> ON | | |
| 6 / 6 | <user-defined> OFF | not pre-allocated | - |
| 6 / 7 | <user-defined> ON | | |
| 7 / 0 | <user-defined> OFF | not pre-allocated | - |
| 7 / 1 | <user-defined> ON | | |
| 7 / 2 | <user-defined> OFF | not pre-allocated | - |
| 7 / 3 | <user-defined> ON | | |
| 7 / 4 | <user-defined> OFF | not pre-allocated | - |
| 7 / 5 | <user-defined> ON | | |
| 7 / 6 | <user-defined> OFF | not pre-allocated | - |
| 7 / 7 | <user-defined> ON | | |
| 8 / 0 | <user-defined> OFF | not pre-allocated | - |
| 8 / 1 | <user-defined> ON | | |
| 8 / 2 | <user-defined> OFF | not pre-allocated | - |
| 8 / 3 | <user-defined> ON | | |

### 7.1.3 Single commands

- Single commands can be routed on these positions as “Source system interface” using the **`DIGSI Configuration matrix`**.

| Offset | Designation of the SIPROTEC objects | Comments | Internal object no. |
|---|---|---|---|
| 8 / 4 | <user-defined> OFF | not pre-allocated | - |
| 8 / 5 | <user-defined> ON | | |
| 8 / 6 | <user-defined> OFF | not pre-allocated | - |
| 8 / 7 | <user-defined> ON | | |
| 9 / 0 | <user-defined> OFF | not pre-allocated | - |
| 9 / 1 | <user-defined> ON | | |
| 9 / 2 | <user-defined> OFF | not pre-allocated | - |
| 9 / 3 | <user-defined> ON | | |
| 9 / 4 | <user-defined> OFF | not pre-allocated | - |
| 9 / 5 | <user-defined> ON | | |
| 9 / 6 | <user-defined> OFF | not pre-allocated | - |
| 9 / 7 | <user-defined> ON | | |
| 10 / 0 | <user-defined> OFF | not pre-allocated | - |
| 10 / 1 | <user-defined> ON | | |
| 10 / 2 | <user-defined> OFF | not pre-allocated | - |
| 10 / 3 | <user-defined> ON | | |
| 10 / 4 | <user-defined> OFF | not pre-allocated | - |
| 10 / 5 | <user-defined> ON | | |
| 10 / 6 | <user-defined> OFF | not pre-allocated | - |
| 10 / 7 | <user-defined> ON | | |
| 11 / 0 | <user-defined> OFF | not pre-allocated | - |
| 11 / 1 | <user-defined> ON | | |
| 11 / 2 | <user-defined> OFF | not pre-allocated | - |
| 11 / 3 | <user-defined> ON | | |
| 11 / 4 | <user-defined> OFF | not pre-allocated | - |
| 11 / 5 | <user-defined> ON | | |
| 11 / 6 | <user-defined> OFF | not pre-allocated | - |
| 11 / 7 | <user-defined> ON | | |
| 12 / 0 | <user-defined> OFF | not pre-allocated | - |
| 12 / 1 | <user-defined> ON | | |
| 12 / 2 | <user-defined> OFF | not pre-allocated | - |
| 12 / 3 | <user-defined> ON | | |
| 12 / 4 | <user-defined> OFF | not pre-allocated | - |
| 12 / 5 | <user-defined> ON | | |

| Offset | Designation of the SIPROTEC objects | Comments | Internal object no. |
|---|---|---|---|
| 12 / 6 | <user-defined> OFF | not pre-allocated | - |
| 12 / 7 | <user-defined> ON | | |
| 13 / 0 | <user-defined> OFF | not pre-allocated | - |
| 13 / 1 | <user-defined> ON | | |
| 13 / 2 | <user-defined> OFF | not pre-allocated | - |
| 13 / 3 | <user-defined> ON | | |
| 13 / 4 | <user-defined> OFF | not pre-allocated | - |
| 13 / 5 | <user-defined> ON | | |
| 13 / 6 | <user-defined> OFF | not pre-allocated | - |
| 13 / 7 | <user-defined> ON | | |
| 14 / 0 | <user-defined> OFF | not pre-allocated | - |
| 14 / 1 | <user-defined> ON | | |
| 14 / 2 | <user-defined> OFF | not pre-allocated | - |
| 14 / 3 | <user-defined> ON | | |
| 14 / 4 | <user-defined> OFF | not pre-allocated | - |
| 14 / 5 | <user-defined> ON | | |
| 14 / 6 | <user-defined> OFF | not pre-allocated | - |
| 14 / 7 | <user-defined> ON | | |
| 15 / 0 | <user-defined> OFF | not pre-allocated | - |
| 15 / 1 | <user-defined> ON | | |
| 15 / 2 | <user-defined> OFF | not pre-allocated | - |
| 15 / 3 | <user-defined> ON | | |
| 15 / 4 | <user-defined> OFF | not pre-allocated | - |
| 15 / 5 | <user-defined> ON | | |
| 15 / 6 | <user-defined> OFF | not pre-allocated | - |
| 15 / 7 | <user-defined> ON | | |
| 16 / 0 | <user-defined> OFF | not pre-allocated | - |
| 16 / 1 | <user-defined> ON | | |
| 16 / 2 | <user-defined> OFF | not pre-allocated | - |
| 16 / 3 | <user-defined> ON | | |
| 16 / 4 | <user-defined> OFF | not pre-allocated | - |
| 16 / 5 | <user-defined> ON | | |
| 16 / 6 | <user-defined> OFF | not pre-allocated | - |
| 16 / 7 | <user-defined> ON | | |
| 17 / 0 | <user-defined> OFF | not pre-allocated | - |
| 17 / 1 | <user-defined> ON | | |
| 17 / 2 | <user-defined> OFF | not pre-allocated | - |
| 17 / 3 | <user-defined> ON | | |

| Offset | Designation of the SIPROTEC objects | Comments | Internal object no. |
|---|---|---|---|
| 17 / 4 | <user-defined> OFF | not pre-allocated | - |
| 17 / 5 | <user-defined> ON | | |
| 17 / 6 | <user-defined> OFF | not pre-allocated | - |
| 17 / 7 | <user-defined> ON | | |
| 18 / 0 | <user-defined> OFF | not pre-allocated | - |
| 18 / 1 | <user-defined> ON | | |
| 18 / 2 | <user-defined> OFF | not pre-allocated | - |
| 18 / 3 | <user-defined> ON | | |
| 18 / 4 | <user-defined> OFF | not pre-allocated | - |
| 18 / 5 | <user-defined> ON | | |
| 18 / 6 | <user-defined> OFF | not pre-allocated | - |
| 18 / 7 | <user-defined> ON | | |
| 19 / 0 | <user-defined> OFF | not pre-allocated | - |
| 19 / 1 | <user-defined> ON | | |
| 19 / 2 | <user-defined> OFF | not pre-allocated | - |
| 19 / 3 | <user-defined> ON | | |
| 19 / 4 | <user-defined> OFF | not pre-allocated | - |
| 19 / 5 | <user-defined> ON | | |
| 19 / 6 | <user-defined> OFF | not pre-allocated | - |
| 19 / 7 | <user-defined> ON | | |
| 20 / 0 | <user-defined> OFF | not pre-allocated | - |
| 20 / 1 | <user-defined> ON | | |
| 20 / 2 | <user-defined> OFF | not pre-allocated | - |
| 20 / 3 | <user-defined> ON | | |
| 20 / 4 | <user-defined> OFF | not pre-allocated | - |
| 20 / 5 | <user-defined> ON | | |
| 20 / 6 | <user-defined> OFF | not pre-allocated | - |
| 20 / 7 | <user-defined> ON | | |
| 21 / 0 | <user-defined> OFF | not pre-allocated | - |
| 21 / 1 | <user-defined> ON | | |
| 21 / 2 | <user-defined> OFF | not pre-allocated | - |
| 21 / 3 | <user-defined> ON | | |
| 21 / 4 | <user-defined> OFF | not pre-allocated | - |
| 21 / 5 | <user-defined> ON | | |
| 21 / 6 | <user-defined> OFF | not pre-allocated | - |
| 21 / 7 | <user-defined> ON | | |

# 7.2 Message in input direction

## 7.2.1 Annunciations

### 7.2.1.1 Double-point indications

- Double-point indications (e.g. checkback indications of double commands) can be routed on these positions as “Destination system interface” using the **DIGSI Configuration matrix**.

| Offset | Designation of the SIPROTEC objects | Comments | Internal object no. |
|---|---|---|---|
| 0 / 0 | <user-defined> OFF | not pre-allocated | - |
| 0 / 1 | <user-defined> ON | | |
| 0 / 2 | <user-defined> OFF | not pre-allocated | - |
| 0 / 3 | <user-defined> ON | | |
| 0 / 4 | <user-defined> OFF | not pre-allocated | - |
| 0 / 5 | <user-defined> ON | | |
| 0 / 6 | <user-defined> OFF | not pre-allocated | - |
| 0 / 7 | <user-defined> ON | | |
| 1 / 0 | <user-defined> OFF | not pre-allocated | - |
| 1 / 1 | <user-defined> ON | | |
| 1 / 2 | <user-defined> OFF | not pre-allocated | - |
| 1 / 3 | <user-defined> ON | | |
| 1 / 4 | <user-defined> OFF | not pre-allocated | - |
| 1 / 5 | <user-defined> ON | | |
| 1 / 6 | <user-defined> OFF | not pre-allocated | - |
| 1 / 7 | <user-defined> ON | | |
| 2 / 0 | <user-defined> OFF | not pre-allocated | - |
| 2 / 1 | <user-defined> ON | | |
| 2 / 2 | <user-defined> OFF | not pre-allocated | - |
| 2 / 3 | <user-defined> ON | | |
| 2 / 4 | <user-defined> OFF | not pre-allocated | - |
| 2 / 5 | <user-defined> ON | | |
| 2 / 6 | <user-defined> OFF | not pre-allocated | - |
| 2 / 7 | <user-defined> ON | | |
| 3 / 0 | <user-defined> OFF | not pre-allocated | - |
| 3 / 1 | <user-defined> ON | | |
| 3 / 2 | <user-defined> OFF | not pre-allocated | - |
| 3 / 3 | <user-defined> ON | | |

| Offset | Designation of the SIPROTEC objects | Comments | Internal object no. |
|---|---|---|---|
| 3 / 4 | <user-defined> OFF | not pre-allocated | - |
| 3 / 5 | <user-defined> ON | | |
| 3 / 6 | <user-defined> OFF | not pre-allocated | - |
| 3 / 7 | <user-defined> ON | | |
| 4 / 0 | <user-defined> OFF | not pre-allocated | - |
| 4 / 1 | <user-defined> ON | | |
| 4 / 2 | <user-defined> OFF | not pre-allocated | - |
| 4 / 3 | <user-defined> ON | | |
| 4 / 4 | <user-defined> OFF | not pre-allocated | - |
| 4 / 5 | <user-defined> ON | | |
| 4 / 6 | <user-defined> OFF | not pre-allocated | - |
| 4 / 7 | <user-defined> ON | | |
| 5 / 0 | <user-defined> OFF | not pre-allocated | - |
| 5 / 1 | <user-defined> ON | | |
| 5 / 2 | <user-defined> OFF | not pre-allocated | - |
| 5 / 3 | <user-defined> ON | | |
| 5 / 4 | <user-defined> OFF | not pre-allocated | - |
| 5 / 5 | <user-defined> ON | | |
| 5 / 6 | <user-defined> OFF | not pre-allocated | - |
| 5 / 7 | <user-defined> ON | | |
| 6 / 0 | <user-defined> OFF | not pre-allocated | - |
| 6 / 1 | <user-defined> ON | | |
| 6 / 2 | <user-defined> OFF | not pre-allocated | - |
| 6 / 3 | <user-defined> ON | | |
| 6 / 4 | <user-defined> OFF | not pre-allocated | - |
| 6 / 5 | <user-defined> ON | | |
| 6 / 6 | <user-defined> OFF | not pre-allocated | - |
| 6 / 7 | <user-defined> ON | | |
| 7 / 0 | <user-defined> OFF | not pre-allocated | - |
| 7 / 1 | <user-defined> ON | | |
| 7 / 2 | <user-defined> OFF | not pre-allocated | - |
| 7 / 3 | <user-defined> ON | | |
| 7 / 4 | <user-defined> OFF | not pre-allocated | - |
| 7 / 5 | <user-defined> ON | | |
| 7 / 6 | <user-defined> OFF | not pre-allocated | - |
| 7 / 7 | <user-defined> ON | | |
| 8 / 0 | <user-defined> OFF | not pre-allocated | - |
| 8 / 1 | <user-defined> ON | | |

| Offset | Designation of the SIPROTEC objects | Comments | Internal object no. |
|---|---|---|---|
| 8 / 2 | <user-defined> OFF | not pre-allocated | - |
| 8 / 3 | <user-defined> ON | | |
| 8 / 4 | <user-defined> OFF | not pre-allocated | - |
| 8 / 5 | <user-defined> ON | | |
| 8 / 6 | <user-defined> OFF | not pre-allocated | - |
| 8 / 7 | <user-defined> ON | | |
| 9 / 0 | <user-defined> OFF | not pre-allocated | - |
| 9 / 1 | <user-defined> ON | | |
| 9 / 2 | <user-defined> OFF | not pre-allocated | - |
| 9 / 3 | <user-defined> ON | | |
| 9 / 4 | <user-defined> OFF | not pre-allocated | - |
| 9 / 5 | <user-defined> ON | | |
| 9 / 6 | <user-defined> OFF | not pre-allocated | - |
| 9 / 7 | <user-defined> ON | | |
| 10 / 0 | <user-defined> OFF | not pre-allocated | - |
| 10 / 1 | <user-defined> ON | | |
| 10 / 2 | <user-defined> OFF | not pre-allocated | - |
| 10 / 3 | <user-defined> ON | | |

#### 7.2.1.2 Single-point indications

- Single-point indications can be routed on these positions as “Destination system interface” using the **`DIGSI Configuration matrix`**.

| Offset | Designation of the SIPROTEC objects | Comments | Internal object no. |
|---|---|---|---|
| 10 / 4 | <user-defined> | not pre-allocated | - |
| 10 / 5 | <user-defined> | not pre-allocated | - |
| 10 / 6 | <user-defined> | not pre-allocated | - |
| 10 / 7 | <user-defined> | not pre-allocated | - |
| 11 / 0 | <user-defined> | not pre-allocated | - |
| 11 / 1 | <user-defined> | not pre-allocated | - |
| 11 / 2 | <user-defined> | not pre-allocated | - |
| 11 / 3 | <user-defined> | not pre-allocated | - |
| 11 / 4 | <user-defined> | not pre-allocated | - |
| 11 / 5 | <user-defined> | not pre-allocated | - |
| 11 / 6 | <user-defined> | not pre-allocated | - |
| 11 / 7 | <user-defined> | not pre-allocated | - |
| 12 / 0 | <user-defined> | not pre-allocated | - |

| Offset | Designation of the SIPROTEC objects | Comments | Internal object no. |
|---|---|---|---|
| 12 / 1 | <user-defined> | not pre-allocated | - |
| 12 / 2 | <user-defined> | not pre-allocated | - |
| 12 / 3 | <user-defined> | not pre-allocated | - |
| 12 / 4 | <user-defined> | not pre-allocated | - |
| 12 / 5 | <user-defined> | not pre-allocated | - |
| 12 / 6 | <user-defined> | not pre-allocated | - |
| 12 / 7 | <user-defined> | not pre-allocated | - |
| 13 / 0 | <user-defined> | not pre-allocated | - |
| 13 / 1 | <user-defined> | not pre-allocated | - |
| 13 / 2 | <user-defined> | not pre-allocated | - |
| 13 / 3 | <user-defined> | not pre-allocated | - |
| 13 / 4 | <user-defined> | not pre-allocated | - |
| 13 / 5 | <user-defined> | not pre-allocated | - |
| 13 / 6 | <user-defined> | not pre-allocated | - |
| 13 / 7 | <user-defined> | not pre-allocated | - |
| 14 / 0 | <user-defined> | not pre-allocated | - |
| 14 / 1 | <user-defined> | not pre-allocated | - |
| 14 / 2 | <user-defined> | not pre-allocated | - |
| 14 / 3 | <user-defined> | not pre-allocated | - |
| 14 / 4 | <user-defined> | not pre-allocated | - |
| 14 / 5 | <user-defined> | not pre-allocated | - |
| 14 / 6 | <user-defined> | not pre-allocated | - |
| 14 / 7 | <user-defined> | not pre-allocated | - |
| 15 / 0 | <user-defined> | not pre-allocated | - |
| 15 / 1 | <user-defined> | not pre-allocated | - |
| 15 / 2 | <user-defined> | not pre-allocated | - |
| 15 / 3 | <user-defined> | not pre-allocated | - |
| 15 / 4 | <user-defined> | not pre-allocated | - |
| 15 / 5 | <user-defined> | not pre-allocated | - |
| 15 / 6 | <user-defined> | not pre-allocated | - |
| 15 / 7 | <user-defined> | not pre-allocated | - |
| 16 / 0 | <user-defined> | not pre-allocated | - |
| 16 / 1 | <user-defined> | not pre-allocated | - |
| 16 / 2 | <user-defined> | not pre-allocated | - |
| 16 / 3 | <user-defined> | not pre-allocated | - |
| 16 / 4 | <user-defined> | not pre-allocated | - |
| 16 / 5 | <user-defined> | not pre-allocated | - |
| 16 / 6 | <user-defined> | not pre-allocated | - |

| Offset | Designation of the SIPROTEC objects | Comments | Internal object no. |
|---|---|---|---|
| 16 / 7 | <user-defined> | not pre-allocated | - |
| 17 / 0 | <user-defined> | not pre-allocated | - |
| 17 / 1 | <user-defined> | not pre-allocated | - |
| 17 / 2 | <user-defined> | not pre-allocated | - |
| 17 / 3 | <user-defined> | not pre-allocated | - |
| 17 / 4 | <user-defined> | not pre-allocated | - |
| 17 / 5 | <user-defined> | not pre-allocated | - |
| 17 / 6 | <user-defined> | not pre-allocated | - |
| 17 / 7 | <user-defined> | not pre-allocated | - |
| 18 / 0 | <user-defined> | not pre-allocated | - |
| 18 / 1 | <user-defined> | not pre-allocated | - |
| 18 / 2 | <user-defined> | not pre-allocated | - |
| 18 / 3 | <user-defined> | not pre-allocated | - |
| 18 / 4 | <user-defined> | not pre-allocated | - |
| 18 / 5 | <user-defined> | not pre-allocated | - |
| 18 / 6 | <user-defined> | not pre-allocated | - |
| 18 / 7 | <user-defined> | not pre-allocated | - |
| 19 / 0 | <user-defined> | not pre-allocated | - |
| 19 / 1 | <user-defined> | not pre-allocated | - |
| 19 / 2 | <user-defined> | not pre-allocated | - |
| 19 / 3 | <user-defined> | not pre-allocated | - |
| 19 / 4 | <user-defined> | not pre-allocated | - |
| 19 / 5 | <user-defined> | not pre-allocated | - |
| 19 / 6 | <user-defined> | not pre-allocated | - |
| 19 / 7 | <user-defined> | not pre-allocated | - |
| 20 / 0 | <user-defined> | not pre-allocated | - |
| 20 / 1 | <user-defined> | not pre-allocated | - |
| 20 / 2 | <user-defined> | not pre-allocated | - |
| 20 / 3 | <user-defined> | not pre-allocated | - |
| 20 / 4 | <user-defined> | not pre-allocated | - |
| 20 / 5 | <user-defined> | not pre-allocated | - |
| 20 / 6 | <user-defined> | not pre-allocated | - |
| 20 / 7 | <user-defined> | not pre-allocated | - |
| 21 / 0 | <user-defined> | not pre-allocated | - |
| 21 / 1 | <user-defined> | not pre-allocated | - |
| 21 / 2 | <user-defined> | not pre-allocated | - |

#### 7.2.1.3 Diagnosis

| Offset | Designation of the SIPROTEC objects | Comments | Internal object no. |
|---|---|---|---|
| 21 / 3 | Device OK | 1 = Update of the device replica in the SIPROTEC device completed after initial start or restart | 51 |
| 21 / 4 | Settings Calc. | 1 = Settings calculation is running | 70 |
| 21 / 5 | Error Sum Alarm | 1 = Error with a summary alarm ON | 140 |
| 21 / 6 | Alarm Sum Event | 1 = Alarm summary event ON | 160 |
| 21 / 7 | Data valid | 1 = Data in the PROFIBUS-DP message are valid. (This indication is created by the PROFIBUS-DP slave; not available in DIGSI and not relocatable.) | - |

### 7.2.2 Event list

- Information regarding the handshake bytes as well as the retrieval methods of the event list via PROFIBUS-DP can be found in the manual “SIPROTEC Communication module, PROFIBUS-DP - Communication profile”.

| Offset | Designation of the SIPROTEC objects | Comments | Internal object no. |
|---|---|---|---|
| 22 | Control_I | Handshake byte for event list via PROFIBUS-DP | - |
| 23 | SPARE | reserved for future use<br>(the value 0 is transmitted at this position) | - |
| 24 | Message block #1 | Identification #1 | - |
| 25 | | Value #1 | |
| 26 - 33 | | Time stamp #1 | |
| 34 | Message block #2 | Identification #2 | - |
| 35 | | Value #2 | |
| 36 - 43 | | Time stamp #2 | |
| 44 | Message block #3 | Identification #3 | - |
| 45 | | Value #3 | |
| 46 - 53 | | Time stamp #3 | |

# Glossary

| | |
|---|---|
| **CFC** | Continuous Function Chart |
| **DC** | Double command |
| **DDB file / GSD file** | The DDB file contains the Device Data Base (technical characteristics) of the PROFIBUS-DP communication module (PROFIBUS-DP slave).<br>This file is required for configuration of the PROFIBUS-DP master and is supplied together with DIGSI. |
| **DIGSI** | Parameterization system / parameterization software for SIPROTEC devices |
| **DP** | Double-point indication |
| **Input data / Input direction** | Data from the PROFIBUS-DP slave to the PROFIBUS-DP master. |
| **Octet** | Term from EN 50170, one octet corresponds to 8 bits. |
| **OLM** | Optical Link Module |
| **Output data / Output direction** | Data from the PROFIBUS-DP master to the PROFIBUS-DP slave. |
| **PNO** | PROFIBUS Nutzerorganisation (PROFIBUS International Organization) |
| **PROFIBUS-DP** | PROFIBUS - Decentralized Peripherals |
| **PSE** | PROFIBUS interface module with (electrical) isolated RS485 interface for the SIPROTEC devices from Siemens. |
| **PSO** | PROFIBUS interface module with fibre-optical interface for the SIPROTEC devices from Siemens. |
| **SC** | Single command |
| **SP** | Single-point indication |

# Index