

# 7SJ61...7SJ65, 6MD63

## Communication module versions, Mapping file versions

### PROFIBUS-DP

#### 1 Overview

<i>When using</i>	<i>You require</i>			<i>Remarks</i>
	<i>Communication module firmware</i>	<i>DIGSI</i>	<i>7SJ6x, 6MD63 Device firmware</i>	
Standard mappings 1...n	DP_Slave V1 or DP_Slave V2	from V4.10	from V4.20	For devices: 7SJ61...7SJ63, 6MD63, no routing capability in DIGSI!
Standard mappings 2-1...2-n	DP_Slave V1 or DP_Slave V2	from V4.20	from V4.21	For devices: 7SJ61...7SJ63, 7SJ65, 6MD63
Standard mappings 3-1...3-n	from DP_Slave V2	from V4.21 SP3	from V4.40	For devices: 7SJ61...7SJ63, 7SJ64, 6MD63

#### 2 Version information for PROFIBUS-DP Slave communication module firmware

- V02.00.05** September 2001
- New functions:*
- Evaluation of time synchronization messages via PROFIBUS System Management Services,
  - OLM registers of the PROFIBUS module with fibre-optical interface can be configured during parameterization,
  - Signalling of single fibre-optical line-breaks in a redundant optical ring topology,
  - Status bit for metered measurands / counters (invalid, external error) in the most significant bit of the unsigned long value.

- V03.00.03** August 2002
- New function:*
- Event list mechanism for transmission of annunciations with time stamp (is supported for the devices 7SJ6x, 6MD63 only together with standard mapping 3-5).

- V03.01.03**                      March 2003  
*New function:*
- Time synchronization of SIPROTEC devices via PROFIBUS:  
Also 1 min. / N divisible intervals (30 s, 20 s, 15 s, 10 s, 5 s, 3 s, 2 s, 1 s) are possible in addition to the time interval of 1 min. for time synchronization.  
Note: If several time intervals are available in the time master then "1 minute" should be used.
- V03.02.02**                      January 2004  
*General improvements.*
- V03.03.03**                      July 2004  
*General improvements.*
- V03.04.01**                      December 2004  
*New function:*
- Evaluation of the local-time correction factor in the extended PROFIBUS time synchronization messages of SIMATIC S7 CPU 412-2DP...416-2DP, 414-3DP, 416-3DP (from S7 CPU firmware version 3.0 respectively).
- V03.05.01**                      February 2005  
*New function:*
- Evaluation of the local-time correction factor in the extended PROFIBUS time synchronization messages of SIMATIC S7 CP 443-5 Extended modules.



### Attention!

New hardware revision of the PROFIBUS modules.

The version V04 of the PROFIBUS-DP slave communication module firmware has to be used only together with the PROFIBUS modules from hardware revision 4.

The PROFIBUS-DP slave communication module firmware V03 has to be used for PROFIBUS modules up to hardware revision 3 furthermore.

You find further information about the hardware revisions of the PROFIBUS modules and the version dependencies in the "Service-Information for DIGSI4 Update and SIPROTEC4 Firmware Update".

**[http://siemens.siprotec.de/download\\_neu/devices/1\\_Allgemein/FW\\_UPDATEINFORMATION/Readme\\_up.pdf](http://siemens.siprotec.de/download_neu/devices/1_Allgemein/FW_UPDATEINFORMATION/Readme_up.pdf)**

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<b>V04.00.06</b>	<p>February 2004</p> <p><i>New functions:</i></p> <ul style="list-style-type: none"> <li>• Display of communication modul information at the device display (only with 7SJ6x, 6MD63 device firmware from V4.50),</li> <li>• OLM V3 compatibility for fibre-optical PROFIBUS modules.</li> </ul>
<b>V04.01.01</b>	<p>December 2004</p> <p><i>New function:</i></p> <ul style="list-style-type: none"> <li>• Evaluation of the local-time correction factor in the extended PROFIBUS time synchronization messages of SIMATIC S7 CPU 412-2DP...416-2DP, 414-3DP, 416-3DP (from S7 CPU firmware version 3.0 respectively).</li> </ul>
<b>V04.02.02</b>	<p>February 2005</p> <p><i>New function:</i></p> <ul style="list-style-type: none"> <li>• Evaluation of the local-time correction factor in the extended PROFIBUS time synchronization messages of SIMATIC S7 CP 443-5 Extended modules.</li> </ul>
<b>V04.03.01</b>	<p>March 2006</p> <p>Evaluation of OLM status indications from the <b>optical PROFIBUS-DP module</b>: Multiple status changes which appears in quick succession are now filtered and transmitted once only.</p>

### 3 Notes

- Standard mappings**
- The PROFIBUS-DP Slave communication module firmware V2 und V3 is backward compatible for the standard mappings 1...n and 2-1...2-n.
  - The new functions of the PROFIBUS-DP Slave communication module firmware V2 are only available when utilising the standard mappings 3-1...3-n.
  - Standard mappings 3-1...3-n are not available for the device 7SJ65 (current device firmware 4.30).
  - When creating a 7SJ61...64, 6MD63 device V4.40, only the standard mappings 2-1...2-n and 3-1...3-n are by default selectable in DIGSI. The scope of function provided by the standard mappings 1...n can also be utilised with the mappings above.
  - Because standard mappings 1...n do not support the routing capabilities in DIGSI, these mappings should not be used to configure the devices with firmware version from V4.40. If you still want to configure devices with firmware 4.40 using a standard mapping 1...n, then please contact your Siemens representative.

**GSD files**

You need GSD files for parameterization of the PROFIBUS-DP master:

- PROFIBUS communication modules up to hardware revision 3:
  - "siem80a1.gsd" (for PROFIBUS modules with RS485 interface) and
  - "siem80bc.gsd" (for PROFIBUS modules with fibre-optical interface).
- PROFIBUS communication modules from hardware revision 4:
  - "si1\_80a1.gsd" (for PROFIBUS modules with RS485 interface) and
  - "si1\_80bc.gsd" (for PROFIBUS modules with fibre-optical interface).

Together with standard mappings 1...n or 2-1...2-n, always the GSD file "siem80a1.gsd" is used (independent whether RS485 or fibre-optical module).

The GSD files may be found for downloading under:

**<http://www.siprotec.com>**

→ Devices → General information → Communication → Communication protocol descriptions

## 4 References

### General

Document "How to order communication modules for SIPROTEC4 devices"

### Standard mapping specific

<i>Title of manual</i>	<i>Standard mappings 1...n</i>	<i>Standard mappings 2-1...2-n</i>	<i>Standard mappings 3-1...3-n</i>
SIPROTEC Communication module - PROFIBUS-DP Communication profile	C53000-L1840-B001-01	C53000-L1840-B001-02	C53000-L1840-B001-03
SIPROTEC Communication module- PROFIBUS-DP Bus mapping 7SJ6x, 6MD63	7SJ61: C53000-L1840-B002-01 7SJ62/63: C53000-L1840-B003-01 6MD63: C53000-L1840-B004-01	C53000-L1840-B006-02	C53000-L1840-B006-03

The general documents and manuals for each specific device may be found for downloading under

<http://www.siprotec.com>

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