

OFFICIAL MANUFACTURER DOCUMENT PACKAGE

Installation Instructions

6ES7677-1DD60-1AA0

Siemens official documentation for the exact article number.

Source: 6ES7677-1DD60-1AA0.pdf

Selected official Siemens pages follow this cover.

Warranty and liability

Note

The Application Examples are not binding and do not claim to be complete regarding the circuits shown, equipping and any eventuality. The Application Examples do not represent customer-specific solutions. They are only intended to provide support for typical applications. You are responsible for ensuring that the described products are used correctly. These application examples do not relieve you of the responsibility to use safe practices in application, installation, operation and maintenance. When using these Application Examples, you recognize that we cannot be made liable for any damage/claims beyond the liability clause described. We reserve the right to make changes to these Application Examples at any time without prior notice.

If there are any deviations between the recommendations provided in these application examples and other Siemens publications – e.g. Catalogs – the contents of the other documents have priority.

We do not accept any liability for the information contained in this document.

Any claims against us – based on whatever legal reason – resulting from the use of the examples, information, programs, engineering and performance data etc., described in this Application Example shall be excluded. Such an exclusion shall not apply in the case of mandatory liability, e.g. under the German Product Liability Act (“Produkthaftungsgesetz”), in case of intent, gross negligence, or injury of life, body or health, guarantee for the quality of a product, fraudulent concealment of a deficiency or breach of a condition which goes to the root of the contract (“wesentliche Vertragspflichten”). The damages for a breach of a substantial contractual obligation are, however, limited to the foreseeable damage, typical for the type of contract, except in the event of intent or gross negligence or injury to life, body or health. The above provisions do not imply a change of the burden of proof to your detriment.

Any form of duplication or distribution of these Application Examples or excerpts hereof is prohibited without the expressed consent of Siemens Industry Sector.

Security information

Siemens provides products and solutions with industrial security functions that support the secure operation of plants, solutions, machines, equipment and/or networks. They are important components in a holistic industrial security concept. With this in mind, Siemens' products and solutions undergo continuous development. Siemens recommends strongly that you regularly check for product updates.

For the secure operation of Siemens products and solutions, it is necessary to take suitable preventive action (e.g. cell protection concept) and integrate each component into a holistic, state-of-the-art industrial security concept. Third-party products that may be in use should also be considered. For more information about industrial security, visit <http://www.siemens.com/industrialsecurity>.

To stay informed about product updates as they occur, sign up for a product-specific newsletter. For more information, visit <http://support.automation.siemens.com>.

39 PB: Open Communication with Send/Receive Blocks

39.1 Characteristics

Open communication with send/receive blocks is characterized by the following characteristics:

- Open standard (communication with third-party controllers possible)
- Communication via CP
- Communication via protocol: FDL
- Communication via configured connections
- Data volume per communication job: ≤ 240 bytes
- Confirmation from remote transport system
- No confirmation from the remote application

FDL connections

During configuration the following properties can be assigned to an FDL connection:

- Unspecified
- Specified
- Multicast / broadcast

Unspecified

An unspecified FDL connection can be used in 2 ways:

- Connection with a station in another STEP 7 project
- Open Layer 2 access

Open Layer 2 access

The remote communication partner is not established during configuration but in the STEP 7 user program.

This requires installing a job header (4 bytes) in the data. The job header specifies the address of the destination station, and the service (SDA or SDN).

Specified

For a specified FDL connection the remote communication partner is defined during the configuration.

The data has no job header.

Multicast / broadcast

The data contains a job header.

The job header has no function.

Explanations for the table

The user interface is available in STEP 7:

Table 58-3

(*x)	
(*1)	STEP 7 (not TIA): Library: ET200sSI / ET200S serial interface
(*2)	STEP 7 (not TIA): Library: CP PtP / CP 341
(*3)	STEP 7 (not TIA): Library: Standard library / System function blocks
(*4)	STEP 7 (TIA): Instructions / Communication

58.2.3 Modbus slave

Overview of user interface:

Table 58-4

Interface		User interface		(*x)
ET200S	1SI	S_MODB	FB 81	(*1)
		S_SEND / S_RCV	FB 3 / FB 2	(*1)
S7-300 ET 200S	CP 341	MODB_341	FB 80	(*2)
		P_SND_RK / P_RCV_RK	FB 8 / FB 7	(*3)
S7-400	CP 441-2	MODB_441	FB 180	(*2)
S7-1200	CM 1241	MB_SLAVE		(*4)
S7-1500 ET 200MP	CM PtP HF	Modbus_Slave	FB 642	(*4)
ET 200SP	CM PtP			

Explanations for the table

The user interface is available in STEP 7:

Table 58-5

(*x)	
(*1)	STEP 7 (not TIA): Library: ET200sSI / ET200S Serial Interface
(*2)	STEP 7 (not TIA): After the installation of the Modbus slave CD, the FB is provided in the "Modbus" library.
(*3)	STEP 7 (not TIA): Library: CP PtP / CP 341
(*4)	STEP 7 (TIA): Instructions / Communication