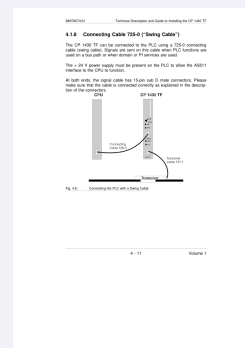


FIELD INSTALLATION QUICK GUIDE

Installation Instructions

6GK1143-0TA02

Industrial Ethernet communication processor



PRODUCT	6GK1143-0TA02
FAMILY	SIMATIC S5 CP 1430 TF
FUNCTION	Industrial Ethernet communication processor
SOURCE	Siemens SIMATIC S5 CP 1430 TF technical documentation

01 OFFICIAL MOUNTING AND WIRING

- Use the supported SIMATIC S5 rack position and isolate rack power before handling the CP.
- Match the memory-card configuration and document the module addressing before insertion.
- Connect the Ethernet transceiver and programming interface according to the official pin assignments.
- Start the verified basic-version CP with the saved NCM COM 1430 TF configuration and test communication.

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4.1.6 Installing the CP 1430 TF in the PLC Rack

The CP 1430 TF can be installed in any PLC slot that is allowed for CP operation (slot label: CP). With PRIO 0 jobs, the CP 1430 TF triggers an interrupt to the CPU of the PLC at the receiving side. Since not all CP slots have interrupt lines, you must select a slot with an interrupt line if you intend to use jobs with priority PRIO 0.

For more information about PLC slots, please refer to the PLC manual.

4.1.7 Connecting the CP 1430 TF to the SINEC H1/H1FO Network

The CP 1430 TF can be connected to the SINEC H1 network as follows:

- With a transceiver using an AUI connection

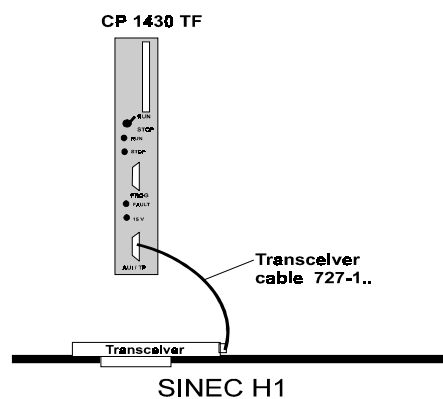


Fig. 4.3: Connecting a CP 1430 TF to SINEC H1 with AUI / Transceiver

The CP 1430 TF generates and supplies the 15 V power required by the transceiver.

4.1.8 Connecting Cable 725-0 ("Swing Cable")

The CP 1430 TF can be connected to the PLC using a 725-0 connecting cable (swing cable). Signals are sent on this cable when PLC functions are used on a bus path or when domain or PI services are used.

The + 24 V power supply must be present on the PLC to allow the AS511 interface to the CPU to function.

At both ends, the signal cable has 15-pin sub D male connectors. Please make sure that the cable is connected correctly as explained in the description of the connectors.

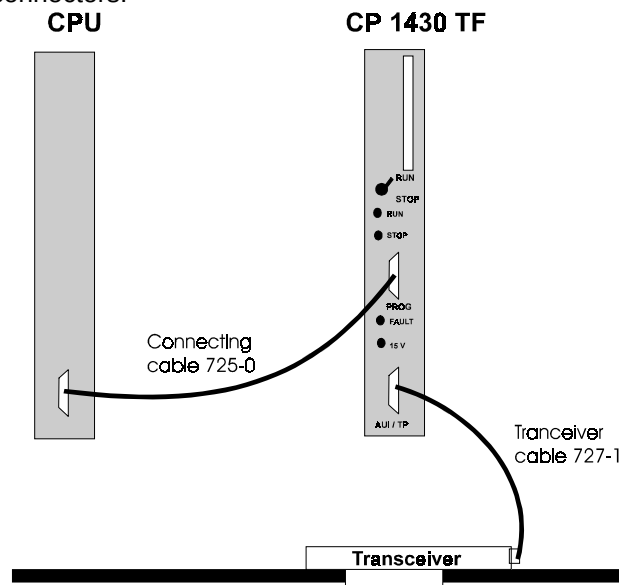


Fig. 4.6: Connecting the PLC with a Swing Cable

4.1.9 Dual-Port RAM Interface Between the CPU and CP

The CP 1430 TF communicates with the SIMATIC PLC using handling blocks via a dual-port RAM. The dual-Port RAM allows simultaneous access by both modules.

How the addressing works, is explained based on the diagram below.

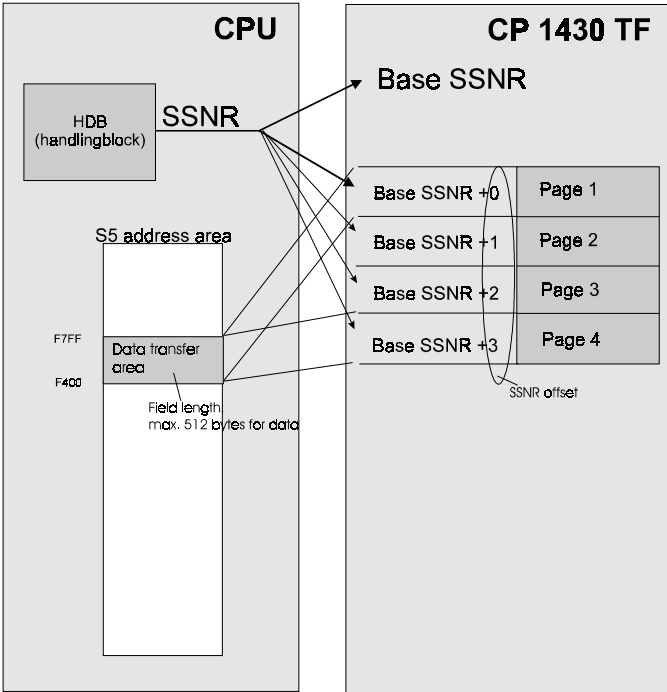


Fig. 4.7: Addressing on the Dual-Port-RAM Interface

In the handling block of the PLC program, you use the interface number (SSNR) to address the CP 1430 TF communications module. The interface number contains the following:

Base interface Using the base SSNR, the PLC selects the CP
number (base SSNR): and its 4 Kbyte dual-port RAM.

The page address (SSNR offset): A CPU addresses the four pages using the 1 Kbyte address window F400 H to F7FF H. The page is determined by the SSNR specified in the handling block.

M 2-1

The base SSNR and the page (SSNR offset) used for communication is configured in the '**CP Basic Initialization**' dialog with the COM 1430 TF configuration tool.

Example: The base interface number 16 and the page address 2 are configured as shown below.

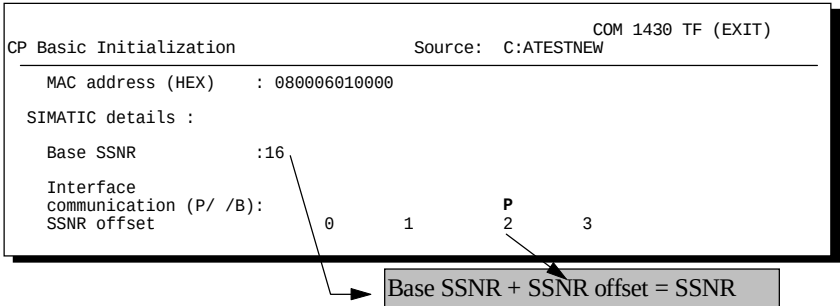


Fig. 4.8: Configuring the SSNR using the Base SSNR and Page Address

This configuration produces SSNR=18. A CP 1430 TF configured in this way, can communicate with CPU number 3 in the multiprocessor mode.

If several communication processors are being used in a programmable logic controller, make sure that there is no double addressing. This means that a base SSNR must be unique in the PLC. If, for example, a CP 5430 (Order Number: 6GK1543-0AA00) exists in the PLC, remember that its dual-port RAM occupies 8 Kbytes of memory (note: The new CP 5430 TF, Order Number:6GK1543-0AA01) occupies only 4 Kbytes of memory.

- Special features of addressing using backplane bus communication are explained in Section 4.2.4 .
- Special features of the multiprocessor mode are explained in Section 4.2.3 .

4.2 Configuration and Installation

4.2.1 Overview

To configure the module, you require a PG with the NCM COM 1430 TF tool described in this manual. You can enter the configuration data using one of the two following methods:

➤ **Online CP**

The CP is connected via the AS511 interface or via a bus path so that the data you input is transferred directly on the CP. You can save the configuration data at any time by transferring the data from the CP to a database file on the PG.

➤ **Offline FD**

The configuration data are saved in a database file on the PG.

A PG-CP connection is only necessary when you want to load the configured database on the CP.

You can, however, load the configured database on a memory card inserted in the PG and then insert this memory card into the CP. In this case, you do not need a PG-CP connection except for diagnostic and test purposes.

Connecting the PG and CP

A connection between the PG and CP is required in the following situations:

- To configure the CP ONLINE.
- To transfer a database from the PG to the CP and vice versa.
- For diagnostic and test functions.
- For programming the PLC and using the PLC test via SINEC H1 (see also PI and domain services described in Volume 2 of this manual).