

MANUFACTURER DOCUMENT PACKAGE

# Manufacturer's Manual

Reference package for procurement and maintenance review

SIEMENS

## 6ES7193-4CB00-0AA0

ELECTRONIC MODULE TERMINAL BASE

Used with the applicable SIMATIC ET 200S TM-E15S23-01 configuration.

REFERENCE PACKAGE

OFFICIAL DOCUMENT

Selected official manufacturer pages follow this cover.

Source: Siemens ET 200S terminal-specific excerpt and shared terminal wiring specifications

TM-E15x24-01 Technical Specifications (6ES7193-4CBx0-0AA0)

| Dimensions and Weight         |                                                                             |
|-------------------------------|-----------------------------------------------------------------------------|
| Dimensions W × H × D (mm)     |                                                                             |
| • Screw-type/spring terminals | 15 × 132 × 43                                                               |
| • Fast Connect                | 15 × 162 × 43                                                               |
| Weight                        | Approx. 65 g (TM-E15S24-01 and TM-E15C24-01)<br>Approx. 72 g (TM-E15N24-01) |

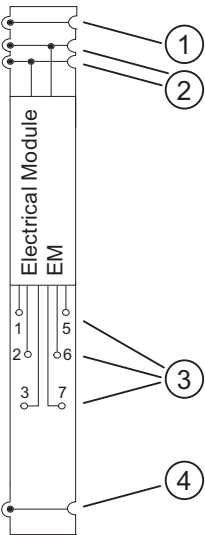
1.9 TM-E15S23-01, TM-E15C23-01 and TM-E15N23-01 terminal modules (6ES7193-4CBx0-0AA0)

Properties

- Terminal module for 15 mm wide electronic modules
- Available in two variants: screw terminal, spring terminal, "fast connect" quick connection method without stripping
- The electronic module determines the signal assignment at terminals 1 to 3 and 5 to 7.
- Pass-through AUX1 bus with electrical connection to the next potential group to the left
- No access to the AUX1 potential through terminals

Block diagram

Block diagram for the TM-E15S23-01, TM-E15C23-01, and TM-E15N23-01 terminal modules



- (1) Backplane bus
- (2) Uninterrupted power buses from the power module
- (3) Terminals with connection to the electronic module
- (4) Uninterrupted AUX1 bus without a connection to the terminals

**TM-E15x23-01 Technical Specifications (6ES7193-4CBx0-0AA0)**

| Dimensions and Weight         |                                                                             |
|-------------------------------|-----------------------------------------------------------------------------|
| Dimensions W × H × D (mm)     |                                                                             |
| • Screw-type/spring terminals | 15 × 120 × 43                                                               |
| • Fast Connect                | 15 × 142 × 43                                                               |
| Weight                        | Approx. 55 g (TM-E15S23-01 and TM-E15C23-01)<br>Approx. 60 g (TM-E15N23-01) |

## 1.10 Terminal module TM-E15S24-AT and TM-E15C24-AT (6ES7193-4CLx0-0AA0)

**Properties**

- Terminal module for the 15 mm wide 2AI TC HF terminal module

**Caution**

You can only insert the 2AI TC HF electronic module into the TM-E15S24-AT/TM-E15C24-AT terminal module. Inserting another electronic module can result in the destruction of the internal reference junction of the terminal module.

- The terminal module has an internal reference junction for temperature compensation. Temperature compensation is thus possible directly at the reference junction of the thermocouples.
- available in two variants: screw terminal, spring terminal
- The electronic module determines the signal assignment at terminals 1, 2 and 5, 6.
- Pass-through AUX1 bus with electrical connection to the next potential group to the left
- No access to the AUX1 potential through terminals

## 3.9 Wiring the ET 200S

### 3.9.1 Wiring rules for the ET 200S

| Wiring rules for:                                  |                                                    | Interface voltage<br>(supply voltage)                                                      | Terminal modules<br>(spring and screw-<br>type terminals)          | Terminal modules<br>(Fast Connect) |
|----------------------------------------------------|----------------------------------------------------|--------------------------------------------------------------------------------------------|--------------------------------------------------------------------|------------------------------------|
| Connectable wire cross-sections for rigid lines    |                                                    | No                                                                                         | 0.14 to 2.5 mm <sup>2</sup>                                        | 0.5 to 1.5 mm <sup>2</sup>         |
| Connectable wire cross-sections for flexible lines | Without wire end ferrule                           | 0.25 to 2.5 mm <sup>2</sup>                                                                | 0.14 to 2.5 mm <sup>2</sup>                                        | 0.5 to 1.5 mm <sup>2</sup>         |
|                                                    | With wire end ferrule                              | 0.25 to 1.5 mm <sup>2</sup>                                                                | 0.14 to 1.5 mm <sup>2</sup>                                        | ---                                |
| Number of wires per connection                     |                                                    | 1 or a combination of 2 wires up to 1.5 mm <sup>2</sup> (sum) in a common wire end ferrule |                                                                    | 1                                  |
| Maximum external diameter of the wire's insulation |                                                    | Ø 3.8 mm                                                                                   | Ø 3.1 mm at 1.5 mm <sup>2</sup><br>Ø 3.8 mm at 2.5 mm <sup>2</sup> | Ø 3.2 mm at 1.5 mm <sup>2</sup>    |
| Stripping length of the wires                      |                                                    | 11 mm                                                                                      |                                                                    | ---                                |
| Wire end ferrules to DIN 46228                     | Without insulating collar                          | Form A, 8 to 12 mm long                                                                    | Form A, up to 12 mm long                                           | ---                                |
|                                                    | With insulating collar 0.25 to 1.5 mm <sup>2</sup> | Form B, up to 12 mm long                                                                   |                                                                    | ---                                |

### 3.9.2 Wiring a terminal module with screw-type terminals

#### Features

In terminal modules with screw-type terminals, the individual wires are screwed into the terminal.

No wire end ferrules are required.

#### Prerequisites

Adhere to the wiring rules.

#### Tool required

3 mm screwdriver

### **Wiring a terminal module with a screw-type terminal**

To wire a terminal module with a screw-type terminal, follow these steps:

1. Strip 11 mm (0.43 in) of insulation from the wires.
2. Insert the individual wires in the terminal.
3. Screw the ends of the individual wires onto the terminal module (torque: 0.4...0.7 Nm).

### **3.9.3 Wiring a terminal module with spring terminals**

#### **Features**

In terminal modules with spring terminals, the individual wires are held securely when you simply insert them in the terminal.

#### **Prerequisites**

Adhere to the wiring rules.

#### **Tool required**

3 mm screwdriver

## Wiring a terminal module with spring terminals

To wire a terminal module with a spring terminals, follow these steps:

1. Strip 11 mm (0.43 in) of insulation from the wires.
2. Insert the screwdriver in the upper (round) opening of the terminal.
3. Insert the wire until it stops in the lower (square) opening of the terminal.
4. Release the terminal by pushing the screwdriver into the opening.
5. Push the wire into the released spring terminal, and pull the screwdriver out.

