

MANUFACTURER DOCUMENT PACKAGE

Manufacturer's Manual

Reference package for procurement and maintenance review

SIEMENS

6ES7120-0BH01-0AA0

SPRING-TERMINAL EXPANSION BLOCK

Used with the applicable SIMATIC ET 200L / SC configuration.

REFERENCE PACKAGE

OFFICIAL DOCUMENT

Selected official manufacturer pages follow this cover.

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SIMATIC

ET 200L, ET 200L-SC and ET 200L-SC IM-SC Distributed I/O Device

Manual

EWA 4NEB 780 6009-02c

Edition 04

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Terminal Blocks and Supplementary Terminals – Technical Data

7

Introduction

The product spectrum of ET 200L and Smart Connect includes various terminal blocks to which you can connect different electronics blocks. This chapter contains the technical data for the terminal blocks and their supplementary terminals.

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7.1 Terminal Block TB 16L – 6ES7 193-1CH00-0XA0, 6ES7 193-1CH10-0XA0

Order Numbers The TB 16L terminal block is available with two types of connection.

- Connection by means of a screw-type terminal (Order Number 6ES7 193-1CH00-0XA0)
- Connection by means of a spring terminal (Order Number 6ES7 193-1CH10-0XA0)

Plug-In Electronics Blocks You can connect the following electronics blocks to the TB 16L terminal block:

Chapter	Plug-In Electronics Blocks	Order Number
Chapter 9: ET 200L Electronics Blocks Technical Data	ET 200L 16 DI DC 24 V	6ES7 131-1BH00-0XB0
	ET 200L-SC 16 DI DC 24 V	6ES7 131-1BH11-0XB0
	ET 200L 16 DO DC 24 V/0.5A	6ES7 132-1BH00-0XB0
	ET 200L-SC 16 DO DC 24 V/0.5 A	6ES7 132-1BH11-0XB0

Characteristics The terminal block bears the stationary wiring.

Dimension Drawing In Figure 7-1 you can see the dimension drawing of the TB 16L terminal block with the 16 DI 24 V DC electronics block clipped on.

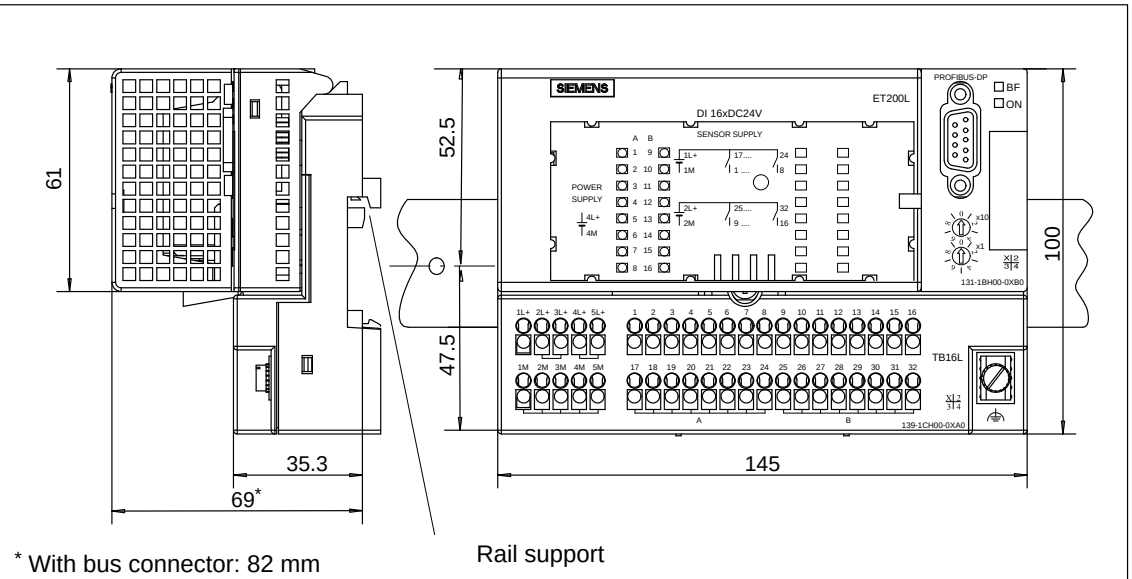


Figure 7-1 The TB 16L Terminal Block with the Electronics Block Clipped On, Dimension Drawing

Pinout

Table 7-2 shows the pinout of the TB 16L AC terminal block.

Table 7-3 Pinout of the TB 16L AC Terminal Block

Terminal	Assignment	
	Inputs	Outputs
1 to 8	I0: Signals .0 to .7	Q0: Signals .0 to .7
9 to 16	I1: Signals .0 to .7	Q1: Signals .0 to .7
17	I0.0: Sensor neutral	Q0.0: Load voltage
18	I0.1: Sensor neutral	Q0.1: Load voltage
19	I0.2: Sensor neutral	Q0.2: Load voltage
20	I0.3: Sensor neutral	Q0.3: Load voltage
21	I0.4: Sensor neutral	Q0.4: Load voltage
22	I0.5: Sensor neutral	Q0.5: Load voltage
23	I0.6: Sensor neutral	Q0.6: Load voltage
24	I0.7: Sensor neutral	Q0.7: Load voltage
25	I1.0: Sensor neutral	Q1.0: Load voltage
26	I1.1: Sensor neutral	Q1.1: Load voltage
27	I1.2: Sensor neutral	Q1.2: Load voltage
28	I1.3: Sensor neutral	Q1.3: Load voltage
29	I1.4: Sensor neutral	Q1.4: Load voltage
30	I1.5: Sensor neutral	Q1.5: Load voltage
31	I1.6: Sensor neutral	Q0.6: Load voltage
32	I1.7: Sensor neutral	Q1.7: Load voltage
L1	Power supply line for electronics	
N	Power supply neutral for electronics	
⏏	PE	

Technical Data

The following table shows the technical data of the TB 16L AC terminal block.

Dimensions and Weight	
Dimensions W × H × D (mm)	191 × 100 × 40.5
Height with electronics block from top edge rail (with bus terminator)	98.5 mm
Weight	283 g
Module-Specific Data	
Number of channels	16

7.4 Terminal Block TB 16SC

Order Numbers

The TB 16SC terminal block is available with two types of connection:

- Connection by means of a screw-type terminal (Order Number 6ES7 120-0AH01-0AA0)
- Connection by means of a spring terminal (Order Number 6ES7 120-0BH01-0AA0)

Plug-In Electronic Modules

You can connect the following electronic modules to the TB 16 SC terminal block:

Chapter	Plug-In Electronic Modules	Order Number
Chapter 10: Digital SC Electronic Modules Technical Data	2DIDC24V	6ES7 121-1BB00-0AA0
	2DODC24V0.5A	6ES7 122-1BB00-0AA0
	2DODC24V2A	6ES7 122-1BB10-0AA0
	1DIAC120/230V	6ES7 121-1FA00-0AA0
	1DOAC120/230V	6ES7 122-1FA00-0AA0
	1DORel.AC230V	6ES7 122-1HA01-0AA0
	Counter module 1COUNT40kHz *	6ES7 127-1BE00-0AB0
Chapter 12: Analog SC Electronic Modules Technical Data	2 AI U	6ES7 123-1FB00-0AB0
	2 AI HS U *	6ES7 123-1FB50-0AB0
	2 AI I	6ES7 123-1GB00-0AB0 , 6ES7 123-1GB10-0AB0
	2 AI HS I *	6ES7 123-1GB50-0AB0, 6ES7 123-1GB60-0AB0
	2 AI TC	6ES7 123-1JB00-0AB0
	1 AI RTD	6ES7 123-1JA00-0AB0
	1 AO U	6ES7 124-1FA00-0AB0
	1 AO I	6ES7 124-1GA00-0AB0

* Only in conjunction with TB 16IM-SC

Characteristics

The TB 16SC terminal block has the following characteristics:

- It can be wired before you plug in the electronic modules.
- Depending on the design, the wiring can be connected either via screw-type terminals or via spring terminals.
- You must establish a connection to local ground.
- The TB16 SC enables a 2-wire connection and can be expanded to 3-wire and 4-wire connection using supplementary terminals.
- You can slide a labeling strip into the TB16 SC terminal block for noting the assignments between slot and module.
- The counter module and the high-speed analog SC-electronic modules can only be used in the TB 16SC, when the TB 16SC is connected to a TB 16IM-SC.

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A.2 Order Numbers for Smart Connect SC Components

Introduction

You will find here the order numbers for Smart Connect SC components.

Terminal Block and Terminals

Table A-4 Terminal Block and Terminal Order Numbers

Description	Order Number
Terminal block TB16 SC (screw-type terminal)	6ES7 120-0AH01-0AA0
Terminal block TB16 SC (spring terminal)	6ES7 120-0BH01-0AA0
Supplementary terminal, single-tier (screw-type terminal)	6ES7 120-1AH00-0AA0
Supplementary terminal, single-tier (spring terminal)	6ES7 120-1BH00-0AA0
Supplementary terminal, double-tier (screw-type terminal)	6ES7 120-2AH00-0AA0
Supplementary terminal, double-tier (spring terminal)	6ES7 120-2BH00-0AA0
Shield terminal	6ES7 192-0AA00-0AA0

Digital SC Electronic Modules

Table A-5 Digital SC Electronic Module Order Numbers

Description	Order Number
Digital electronic module 2DIDC24V	6ES7 121-1BB00-0AA0
Digital electronic module 2DODC24V0.5A	6ES7 122-1BB00-0AA0
Digital electronic module 2DODC24V2A	6ES7 122-1BB10-0AA0
Digital electronic module 1DIAC120/230V	6ES7 121-1FA00-0AA0
Digital electronic module 1DOAC120/230V1A	6ES7 122-1FA00-0AA0
Digital electronic module 1DORel.AC230V	6ES7 122-1HA01-0AA0

**Analog SC
Electronic
Modules**

Table A-6 Analog SC Electronic Module Order Numbers

Description	Order Number
Analog electronic module 2 AI U	6ES7 123-1FB00-0AB0
High-speed analog electronic module 2 AI HS U	6ES7 123-1FB50-0AB0
Analog electronic module 2 AI I	6ES7 123-1GB00-0AB0
Analog electronic module 2 AI I	6ES7 123-1GB10-0AB0
High-speed analog electronic module 2 AI HS I (0/4–20 mA, 4-wire measuring transducer)	6ES7 123-1GB60-0AB0
High-speed analog electronic module 2 AI HS I (4–20 mA, 2-wire measuring transducer)	6ES7 123-1GB50-0AB0
Analog electronic module 2 AI TC	6ES7 123-1JB00-0AB0
Analog electronic module 1 AI RTD	6ES7 123-1JA00-0AB0
Analog electronic module 1 AO U	6ES7 124-1FA00-0AB0
Analog electronic module 1 AO I	6ES7 124-1GA00-0AB0

**Function
Modules**

Table A-7 Function Modules

Description	Order Number
Counter module 1COUNT40kHz	6ES7 127-1BE00-0AB0