

SECTION 2

Preparations

This section provides details on operations that must be performed before starting the E5ZE, such as installation and wiring.

2-1	List of Models
2-1-1	Serial Communications Models
2-1-2	CompoBus/D Communications Models
2-2	Mounting the Serial Communications Models
2-3	Setting Selectors and Switch
2-3-1	UNIT Selector
2-3-2	INPUT Selector
2-3-3	FUNCTION Switch
2-4	Installation
2-4-1	External and Panel Dimensions
2-4-2	Mounting
2-5	Power Supply and Input Wiring
2-5-1	Terminal Block
2-5-2	Wiring
2-5-3	Terminal Arrangement
2-5-4	Power Supply
2-5-5	Ground
2-5-6	Thermocouple Input
2-5-7	Platinum Resistance Thermometer Input
2-6	Wiring CT Inputs and Control/Alarm Outputs
2-6-1	CT Inputs
2-6-2	Outputs
2-7	Connecting Communications
2-7-1	RS-232C
2-7-2	RS-422 and RS-485
2-7-3	CompoBus/D Interface

2-1 List of Models

2-1-1 Serial Communications Models

No. of control points	Casing	Control method	Control output	Heater burnout and SSR failure detection	Communications	Input type	
						Thermocouple	Platinum resistance thermometer
8	No	Standard	Option	Option	Option	E5ZE-8AAAMTC-E	E5ZE-8AAAMP-E
		Heating and cooling	Option	Option	Option	E5ZE-8VAAMTC-E	E5ZE-8VAAMP-E
	Yes	Standard	Option	Option	Option	E5ZE-8AAAMTCB-E	E5ZE-8AAAMPB-E
		Heating and cooling	Option	Option	Option	E5ZE-8VAAMTCB-E	E5ZE-8VAAMPB-E

Model Number Legend:

E5ZE-8□AAM□□-E

1 2 3 4 5 6 7

1. Control Point

8: 8

2. Control Method

A: Standard

V: Heating and cooling

3. Control Output

A: Option (see note 1)

4. Heater Burnout and SSR Failure Detection (see note 2)

A: Option (see note 3)

5. Communications

M: Option (see note 4)

6. Input Type

TC: Thermocouple

P: Platinum resistance thermometer

7. Casing

B: Yes

Blank: No (open type)

Note:

1. The E53-E8Q Voltage Output Unit or the E53-E8C Current Output Unit can be used with the E5ZE. The E53-E8Q Voltage Output Unit and the E53-E8C Current Output Unit are sold separately.
2. The heater burnout and SSR failure detection function of the E5ZE will be invalid if the heating side control output of the E5ZE is current output.
3. The E54-E8CT CT Input Unit is required for the heater burnout and SSR failure detection. The E54-E8CT CT Input Unit is sold separately.
4. The E53-E01 Communications Unit for RS-232C communication or the E53-E04 Communications Unit for RS-422 and RS-485 communication can be used with the E5ZE. The E53-E01 Communications Unit and the E53-E04 Communications Unit are sold separately.

I/O Units (Order Separately)

Units	Models
RS-232C Communications Unit	E53-E01
RS-422/485 Communications Unit	E53-E04
CT Input Unit	E54-E8CT
Voltage Output Unit	E53-E8Q
Current Output Unit	E53-E8C

2-1-2 CompoBus/D Communications Models

No of control points	Casing	Control method	Control output	HBA and SSR failure detection	Input type	Name
8	Yes	Standard	Voltage	No	Thermocouple	E5ZE-8AQA D1TCB 24VDC
8	Yes	Standard	Voltage	No	Platinum resistance thermometer	E5ZE-8AQA D1PB 24VDC
8	Yes	Standard	Voltage	Yes	Thermocouple	E5ZE-8AQH D1TCB 24VDC
8	Yes	Standard	Voltage	Yes	Platinum resistance thermometer	E5ZE-8AQH D1PB 24VDC
8	Yes	Standard	Current	No	Thermocouple	E5ZE-8ACA D1TCB 24VDC
8	Yes	Standard	Current	No	Platinum resistance thermometer	E5ZE-8ACA D1PB 24VDC
8	Yes	Heating and Cooling	Voltage	No	Thermocouple	E5ZE-8VQA D1TCB 24VDC
8	Yes	Heating and Cooling	Voltage	No	Platinum resistance thermometer	E5ZE-8VQA D1PB 24VDC
8	Yes	Heating and Cooling	Voltage	Yes	Thermocouple	E5ZE-8VQH D1TCB 24VDC
8	Yes	Heating and Cooling	Voltage	Yes	Platinum resistance thermometer	E5ZE-8VQH D1PB 24VDC
8	Yes	Heating and Cooling	Current	No	Thermocouple	E5ZE-8VCA D1TCB 24VDC
8	Yes	Heating and Cooling	Current	No	Platinum resistance thermometer	E5ZE-8VCA D1PB 24VDC

Model Number Legend:

E5ZE-8□□□□□□
1 2 3 4 5 6 7

1. Control Point

8: 8

2. Control Method

A: Standard control

V: Heating and cooling control

3. Control Output

Q: Voltage output

C: Current output

4. Heater Burnout and SSR Failure Detection Function (Not available with Current Output Models.)

A: No

H: Yes

5. Communications Function

D1: CompoBus/D

6. Input Type

TC: Thermocouple

P: Platinum resistance thermometer

7. Casing

B: Yes

2-2 Mounting the Serial Communications Models

I/O Units

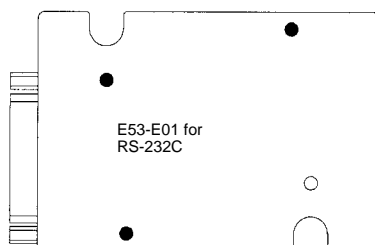
I/O Units are not mounted on the E5ZE.

Mount the appropriate I/O Units according to the specification of the E5ZE.

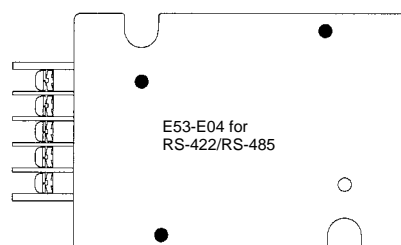
The diagram below is the view from the back of component side.

Type of I/O Units

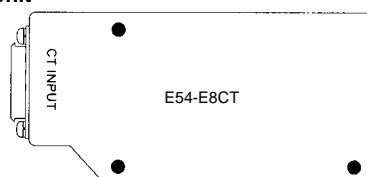
Communication Unit



or

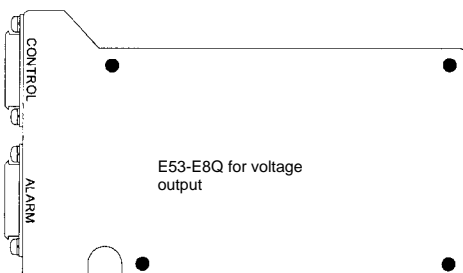


CT Input Unit

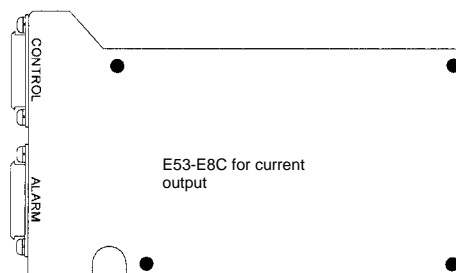


Use this CT input unit in combination with the E53-E8Q voltage output unit.

Output Unit

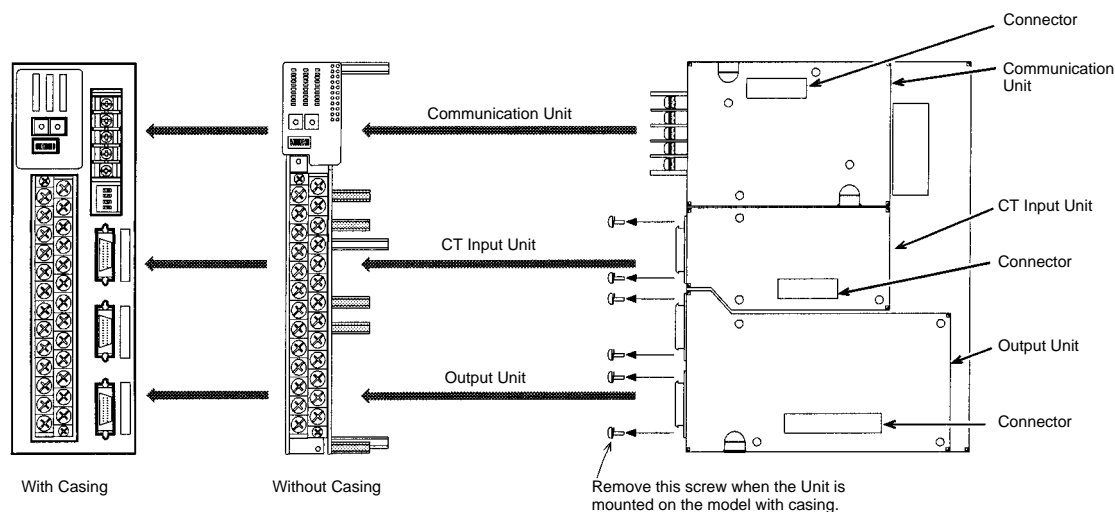


or



Tighten the screws through the holes marked with a black dot (●) to the fixing studs of the E5ZE.

Mounting Position of I/O Units



Mounting the Units

Use appropriate Phillips screwdriver for the screws. Use of an inappropriate screwdriver may damage the screws and cause insufficient tightening.

Mount the Units in an environment where anti-static electricity countermeasures have been taken.

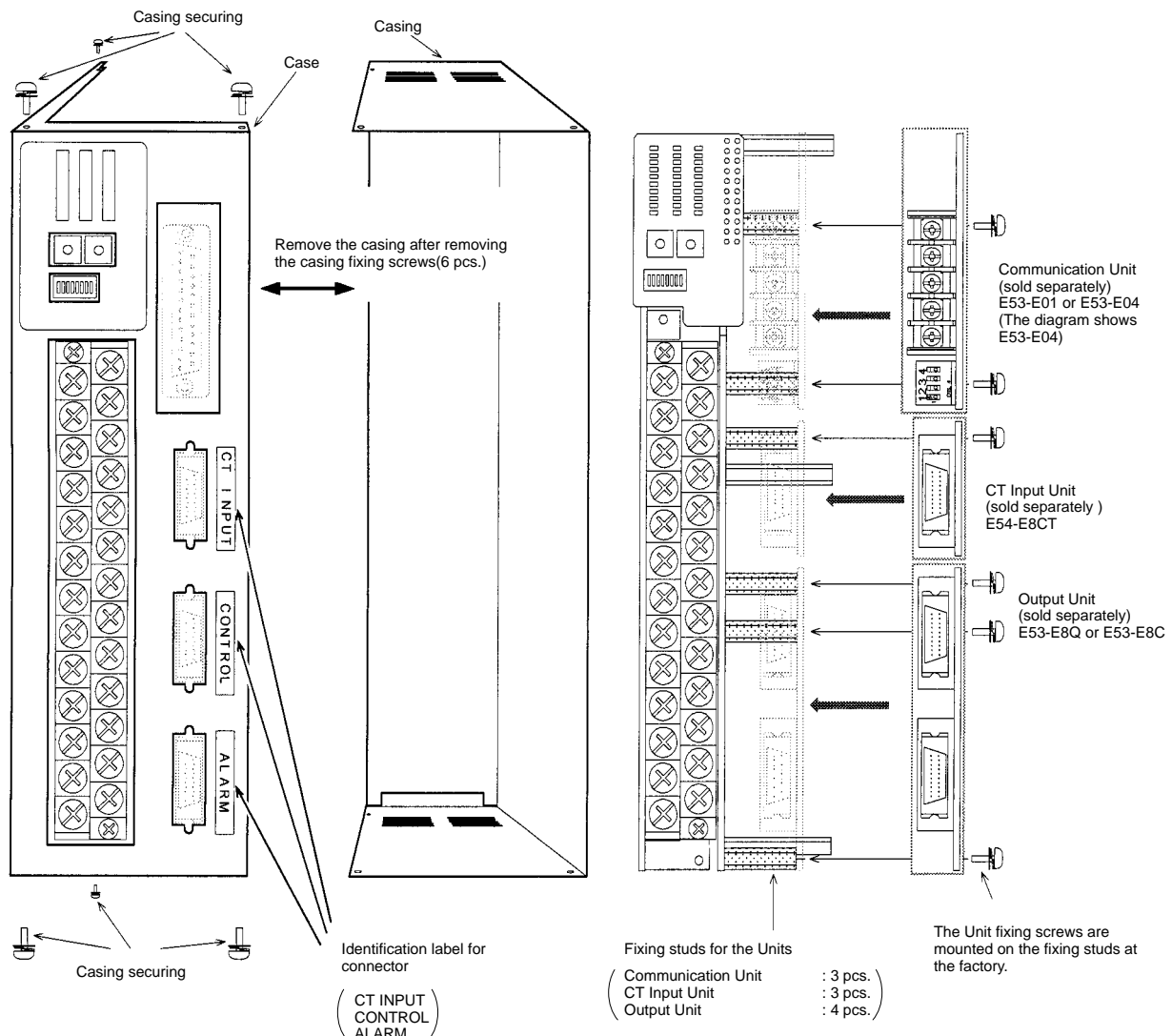
Store the removed screws carefully and use them again when required.

Model With Casing

- 1, 2, 3... 1. Remove the connector fixing screws (2 screws each for a connector) from the Units (except for communication unit).
2. Remove the casing fixing screws (6 screws).
3. Remove the casing.
4. Mount the Units in the same manner as the model without casing.
5. Fix the connector to the case using the connector fixing screws with a torque of 0.34 to 0.39 N•m.
6. Replace the casing in its original position using six casing fixing screws.

Model Without Casing

- 1, 2, 3... 1. Remove the Unit fixing screws.
When CT Input Unit is not required, do not touch the corresponding screws.
To prevent the studs from loosening, use a wrench to fix the studs.
2. Fix the Units in the designated position.
Connect the Units and the E5ZE connector properly.
3. Fix the Units to the studs with fixing screws with a torque of 0.43 to 0.58 N•m.

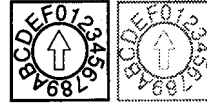


2-3 Setting Selectors and Switch

Observe the following precautions when operating the selectors and switch.

- Always make sure the power is OFF before changing the selectors and switch.
- Use a small flat-blade screwdriver to change the selector and switch settings, and be sure that the selectors are correctly positioned.

2-3-1 UNIT Selector



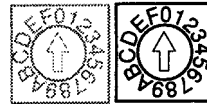
UNIT INPUT

When serial communications are being used, the UNIT selector must be set so that the host device can recognize the E5ZE unit number.

When more than one E5ZE Multipoint Temperature Controller is being used with RS-422 or RS-485 communications, set a different unit number for each E5ZE.

- The selector settings 0 to F correspond to unit numbers 00 to 0F. The factory setting of 0 corresponds to unit number 00.

2-3-2 INPUT Selector



UNIT INPUT

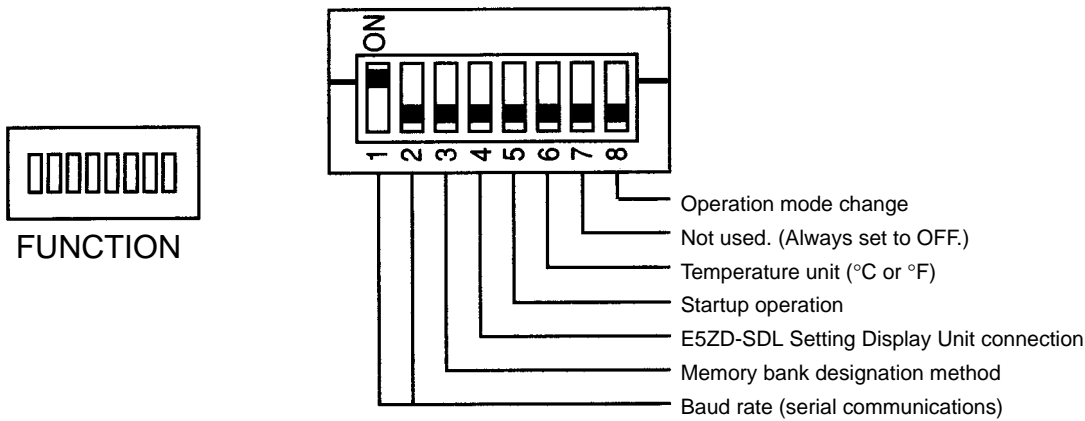
Set the INPUT selector according to the type of temperature sensor connected to the E5ZE. The selector positions and corresponding temperature sensors are as follows:

Selector setting	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
Thermocouple	K	J	R	S	T	E	B	N	L	U	W	PLII	Not used.			
Platinum resistance thermometer	Pt	JPt	Not used.													

- The factory setting is 0.
- The platinum resistance thermometer settings “Pt” and “JPt” indicate Pt100 and JPt100 respectively.

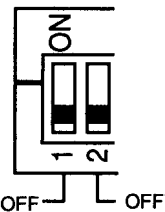
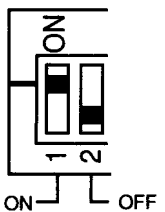
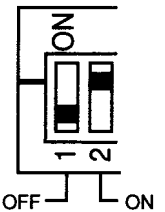
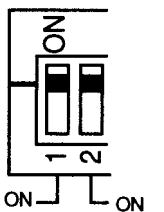
2-3-3 FUNCTION Switch

The FUNCTION switch is used to set the parameters of the E5ZE, such as the baud rate and startup operation.



Baud Rate (Serial Communications)

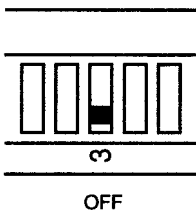
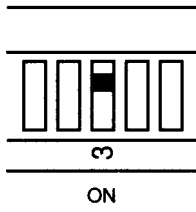
Set the baud rate using pins 1 and 2 to the baud rate of the host device connected to the EZ5E.

Baud rate	19,200 bps	9,600 bps	4,800 bps	2,400 bps
Pin 1 Pin 2				

The factory setting is 9,600 bps (pin 1 ON, pin 2 OFF).

Memory Bank Designation Method

Pin 3 is used to set the memory bank designation method.

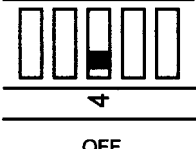
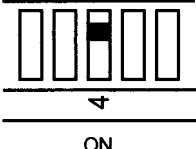
Memory bank designation	Communications	Contact inputs
Pin 3		

The factory setting is for communications (pin 3 OFF).

When contact inputs are used to switch memory banks, the specified memory bank will be used for all control points.

E5ZD-SDL Setting Display Unit Connection

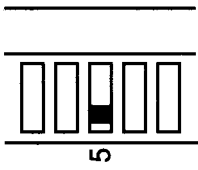
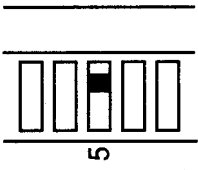
Pin 4 is used to specify when an E5ZD-SDL Setting Display Unit is connected.

E5ZD-SDL connection	Not connected	Connected
Pin 4		

The factory setting is for no connection (pin 4 OFF). Set pin 4 to ON when an E5ZD-SDL Setting Display Unit is to be connected to the E5ZE.

Startup Operation

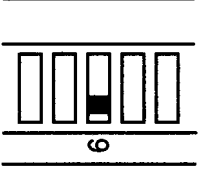
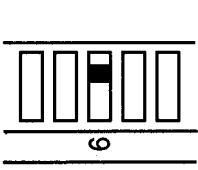
Pin 5 is used to set the startup operation.

Startup operation	Stop operation control	Continue status at power OFF
Pin 5	 OFF	 ON

The factory setting is for stop operation control (pin 5 OFF).
If the power is turned OFF during manual operation and pin 5 is set to ON (continuous operation), manual operation will automatically begin when the power is turned ON again. The output value will be 0%.

Temperature Unit

Pin 6 is used to set the unit for measuring temperature.

Temperature unit	°C	°F
Pin 6	 OFF	 ON

The factory setting is for degrees Celsius (pin 6 OFF).
When the temperature unit is changed, the temperature data does not automatically change, so make sure to reset the temperature using the following procedure.

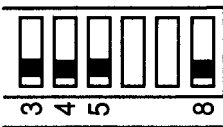

- 1, 2, 3...
1. Initialize the setting data.

2. Recalculate the data according to the following conversion formula and re-set the control data within the setting range.
(value in °F) = 1.8 x (value in °C) + 32

3. Store the settings in memory.

Operation Mode Change

Pins 3, 4, 5, and 8 are used to change the operation mode.

E5ZE operation mode	Control mode	Hardware test mode
Pins 3, 4, 5, and 8	 OFF	 ON

The factory setting is for Control Mode (pins 3, 4, 5, and 8 all OFF).
Control Mode: Use for normal temperature control.
Hardware Test Mode: Use for testing Peripheral Devices and wiring.
Refer to *Appendix E* for details on how to use Hardware Test Mode. Outputs can be turned ON and OFF in Hardware Test Mode regardless of the process value.

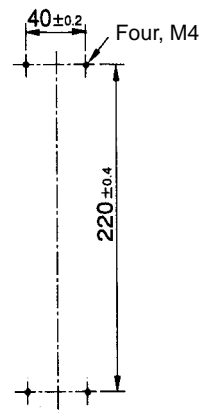
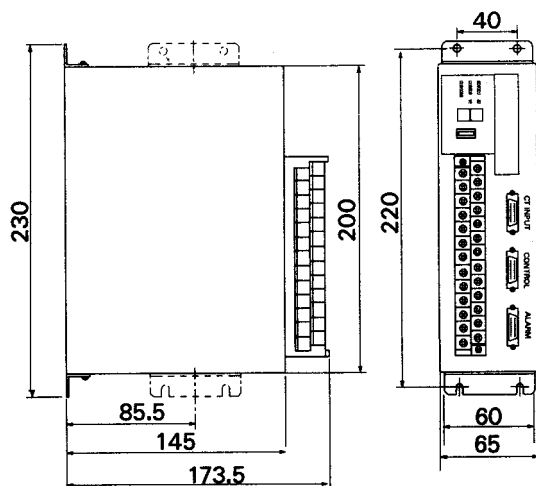
2-4 Installation

2-4-1 External and Panel Dimensions

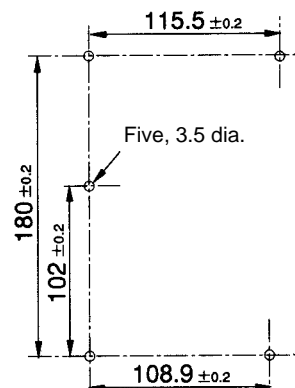
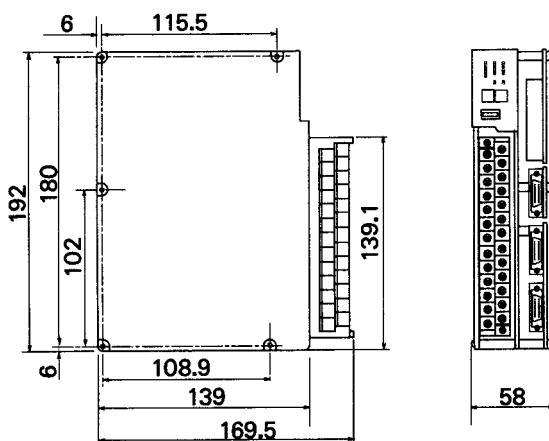
Unit: mm

Mounting Hole Dimensions

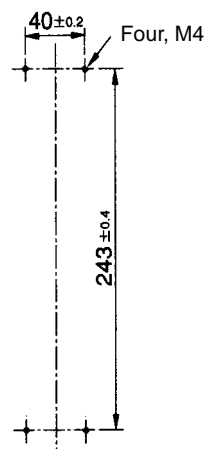
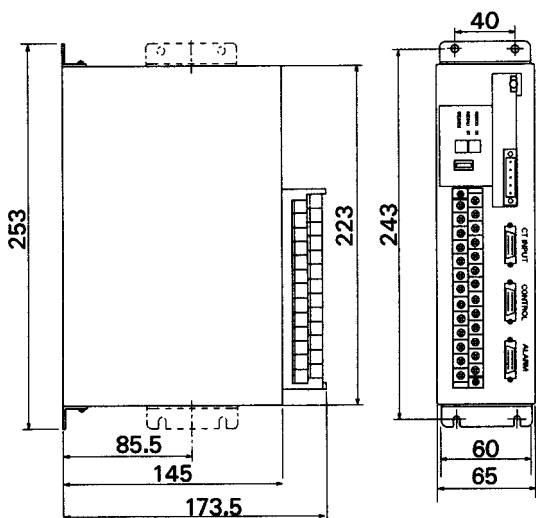
Serial Communications Model
(with Casing)



Serial Communications Model
(without Casing)



E5ZE-8□□□D1□B
(CompoBus/D Interface
with Casing)



2-4-2 Mounting

Mount the Unit using the methods shown here. The Unit will not operate properly if other methods are used to mount the Unit.

Precautions

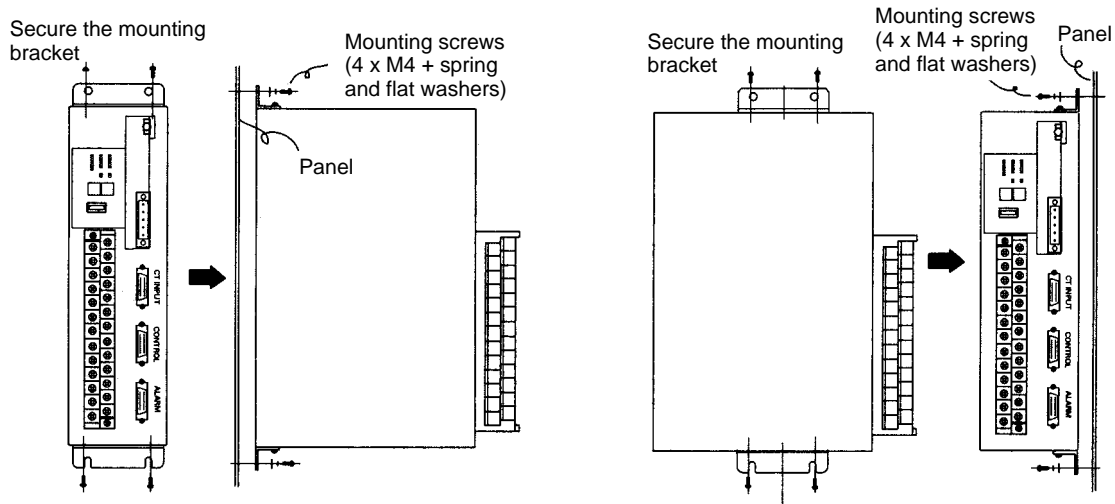
- Use the following mounting screws. Make sure the length of the screws is appropriate for the mounting panel used.

E5ZE-8□□□□□B (with casing):	4 x M4 screws
E5ZE-8□□□□□ (without casing):	5 x M3 screws
- Use spring and flat washers and tighten to a torque of 0.43 to 0.58 N • m {4.4 to 5.9 kgf • cm}.
- Do not mount the terminal block with the connectors facing upwards. Doing so may cause measurement errors.

Mounting Bracket

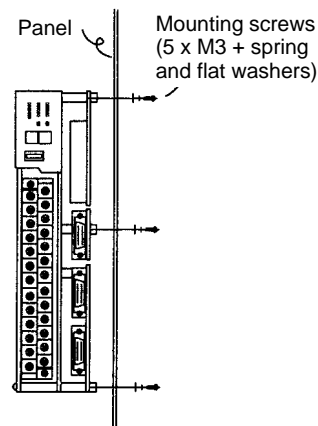
Secure the mounting bracket using the screws provided according to the appropriate mounting method. Tighten to a torque of 0.43 to 0.58 N • m {4.4 to 5.9 kgf • cm}.

Mounting Models with Casing



Mounting Models without Casing

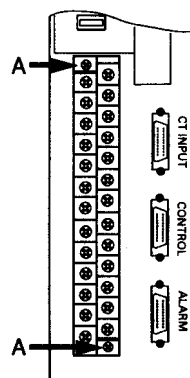
Use M3 mounting studs (depth: 8 mm) to mount Units without casing.



2-5 Power Supply and Input Wiring

2-5-1 Terminal Block

The input terminal block has been designed with a removable terminal-screw panel. When connecting the power supply or temperature sensor, the terminal-screw panel can be conveniently removed before wiring.



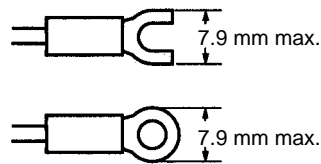
- To remove the terminal-screw panel, loosen the two screws alternately indicated by A in the above diagram.
- To mount the terminal-screw panel, insert it into the terminal block and secure the two screws (A) alternately.
- If the terminal block has been removed from the E5ZE Thermocouple Input Model, when reconnecting make sure that the E5ZE's lot number and serial number are the same as those of the terminal block. Accuracy cannot be guaranteed for a Unit that has been connected to a terminal block with a different lot number and serial number.

2-5-2 Wiring

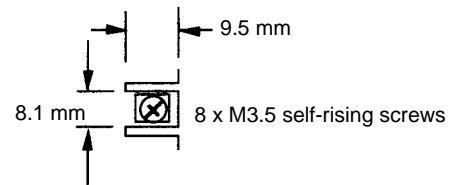
- Always turn OFF the power supply before performing any wiring.
- Be sure to check polarity when connecting the power supply and temperature sensor.
- Wire the power supply cables separately from the temperature sensor cables to prevent noise interference.
- Use either crimp terminals or solder the wire ends when wiring terminals.
- Tighten the terminal screws to a torque of 0.59 N • m or 6 kgf • cm.
- Wire the power lines close to the terminal block to prevent external force being exerted on the power lines from torsion or weight.
- Do not use the terminals that are marked "Don't use."
- Do not bend the crimp terminals after they have been connected and the screws have been tightened.

- Use the crimp terminals shown in the following diagram.

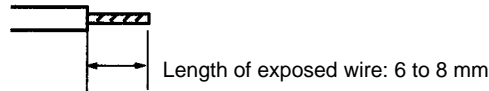
Crimp Terminals



Terminal Block Screw Dimensions



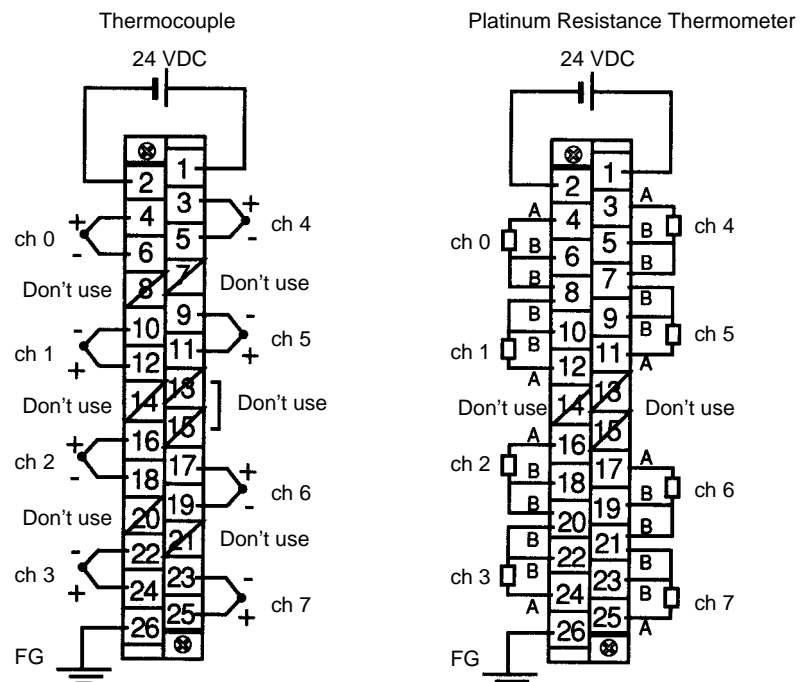
End Soldering



Applicable wire size: AWG 22 to 16

2-5-3 Terminal Arrangement

The following diagram shows the arrangement of terminals on the terminal block.



2-5-4 Power Supply

The power supply specifications are as follows:
24 VDC (20.4 to 26.4 VDC) 15 W + 20% max.

Use a power supply with a minimum capacity of 2 A. Be sure to consider the in-rush current.

2-5-5 Ground

Connect the ground wire to terminal 26. Ground to 100 Ω max.

2-5-6 Thermocouple Input

- The terminal polarity varies with the control point. Be sure to check polarity when connecting thermocouples to the terminal block.
- When extending the input lead wires, connect compensating conductors that match the thermocouple used. Do not solder the ends of the thermocouple or compensating conductors.
- Never remove the cold junction compensator connected to terminals 13 and 15.
- Do not touch the cold junction compensators.
- Short-circuit the positive and negative terminals of each control point that is not used. The process value for each control point that is not being used will be the ambient temperature of the terminal block.

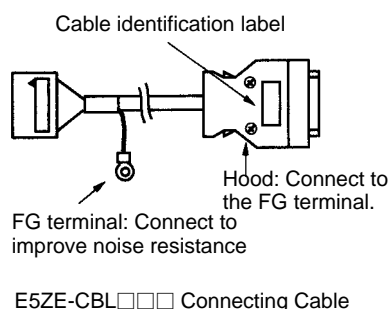
2-5-7 Platinum Resistance Thermometer Input

- The terminal polarity varies with the control point. Be sure to check polarity when connecting platinum resistance thermometers to the terminal block.
- When extending the input lead wires, make sure that the conductor resistance is the same for the A terminal and two B terminals.
- Connect a 100- to 200- Ω resistor between the A and B terminals of any unused control point, and short-circuit the two B terminals of any unused control point. The process value for each control point that is not being used will correspond to the resistance of the resistor connected to the terminals.

2-6 Wiring CT Inputs and Control/Alarm Outputs

CT inputs and control/alarm outputs are connected using wiring-reduction devices. Always use E5ZE-CBL□□□ Connecting Cables to connect the E5ZE to the wiring-reduction devices. Refer to the wiring-reduction device datasheet for details, including wiring precautions.

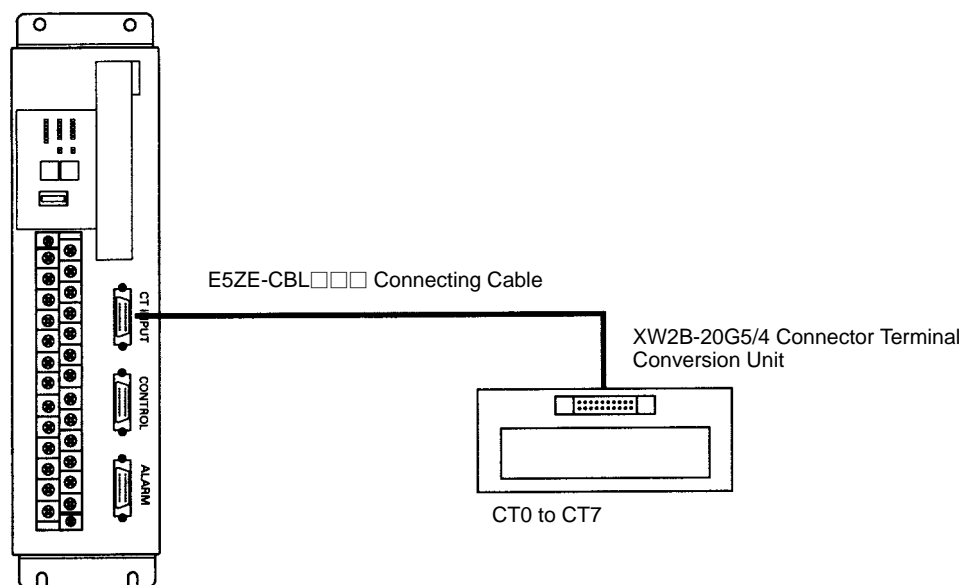
Use the identification labels provided for each cable to prevent incorrect wiring of the CONTROL, ALARM, and CT INPUT connectors.



2-6-1 CT Inputs

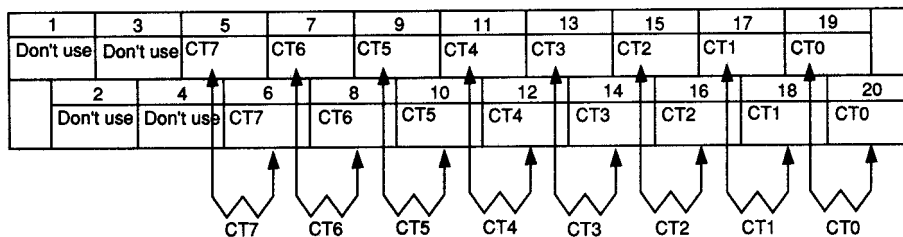
The CT INPUT connector can be connected to an XW2B-20G5 Connector Terminal Conversion Unit (20-terminal M3.5 terminal block) or an XW2B-20G4 Connector Terminal Conversion Unit (20-terminal M2.4 terminal block).

Cable Connections



Wiring

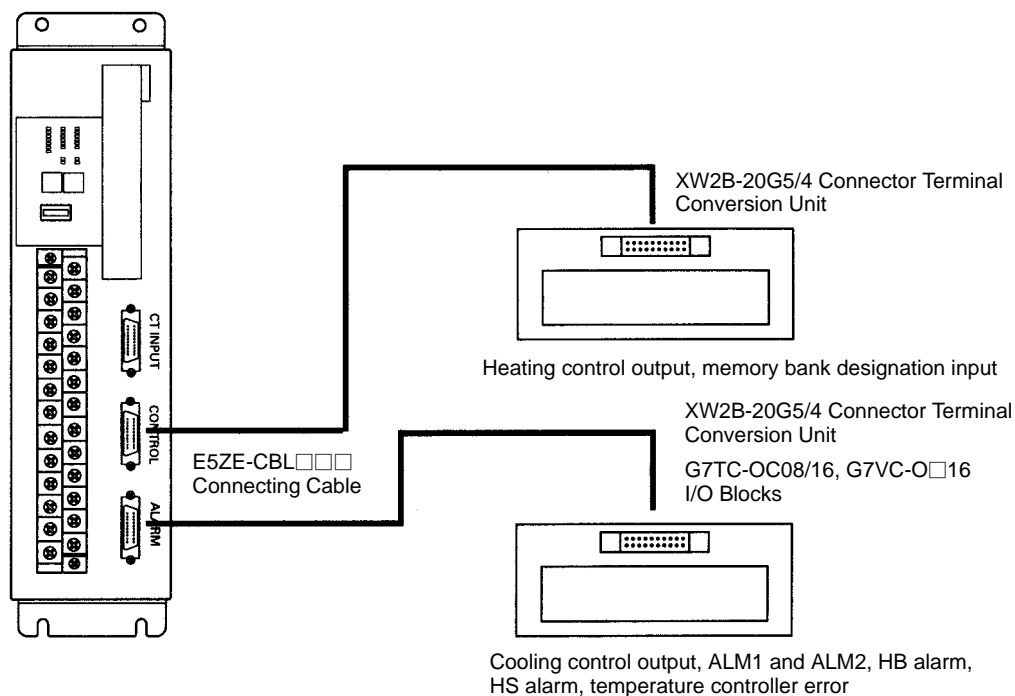
The following diagram shows the terminal arrangement for CT inputs when a XW2B-20G5/4 Connector Terminal Conversion Unit is connected. Connect CT0 to CT7 to the CT inputs for control points 0 to 7. For example, CT0 will detect heater burnout or SSR failure for the output of control point 0.



Use the E54-CT1 or E54-CT3 Current Transformer (CT). Refer to *Appendix B* for further details on the CT. Refer to *3-10 Heater Burnout Detection* for details on wiring the CT.

2-6-2 Outputs

Cable Connections

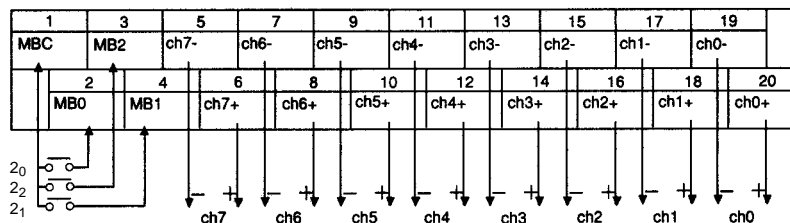


CONTROL Connector Wiring

The CONTROL connector can be connected to an XW2B-20G5 Connector Terminal Conversion Unit (20-terminal M3.5 terminal block) or an XW2B-20G4 Connector Terminal Conversion Unit (20-terminal M2.4 terminal block).

- The terminal arrangement for outputs when an XW2B-20G5/4 Connector Terminal Conversion Unit is connected is shown in the following diagram.

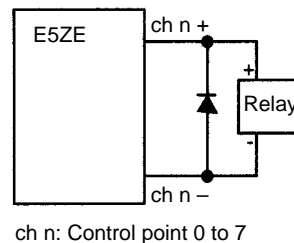
CONTROL Connector Terminal Block



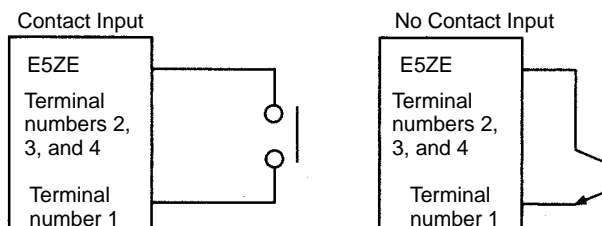
- The output specifications are shown in the following table. Connect a load that is compatible with the output type and output rating.

Output	Specification
Voltage output	Output voltage: 12 ± 1.2 VDC Output current: 30 mA max.
Current output	Output current: $4^{+0}_{-0.6}$ to 20^{+2}_{-0} mA DC Load resistance: 600 Ω max.

- When connecting a relay load, insert a diode to prevent surge.



- The following diagram shows the wiring when designating the memory bank using contact inputs.



ON: Short-circuit resistance: 1 k Ω max.
 Outflow current: 3 mA DC
 OFF: Open resistance: 100 k Ω min.

ON: Residual voltage: 2 VDC max.
 Outflow current: 3 mA DC
 OFF: Leakage current: 1 mA max.

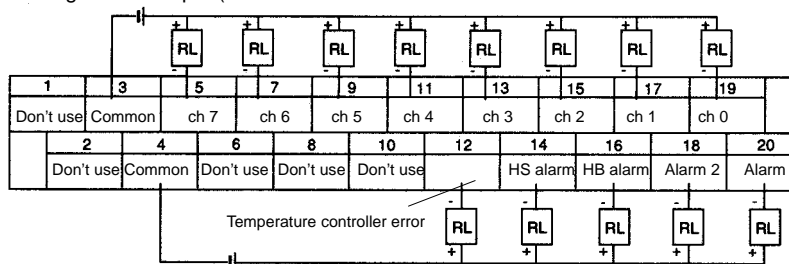
ALARM Connector Wiring

The ALARM connector can be used with the following devices.

- XW2B-20G5 or XW2B-20G4 Connector Terminal Conversion Unit
- G7TC-OC16, G7TC-OC08, or G7VC-O□16 I/O Block

The following diagram shows the terminal arrangement when the ALARM connector is connected to an XW2B-20G5 or XW2B-20G4 Connector Terminal Conversion Unit. In the diagram, RL indicates a relay load.

Cooling control output (Do not use these terminals with E5ZE-8A□□□□□ Standard Models.)

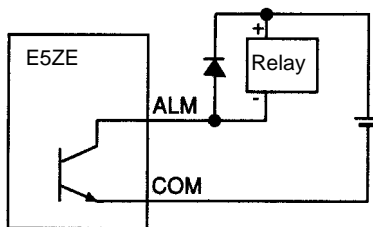


- The following table shows the specifications for alarm output and cooling control output. The E5ZE does not have an overcurrent protection function for alarm output and cooling control output. Connect a load to each alarm output and cooling control output that corresponds to the output ratings.

Output	Specifications
Open collector output	NPN, 30 VDC, 50 mA max. Residual voltage when ON: 2 VDC max. Leakage current when OFF: 1 mA max.

- Do not use the terminals marked "Don't use."

- When connecting a relay load, insert a diode to prevent surge.

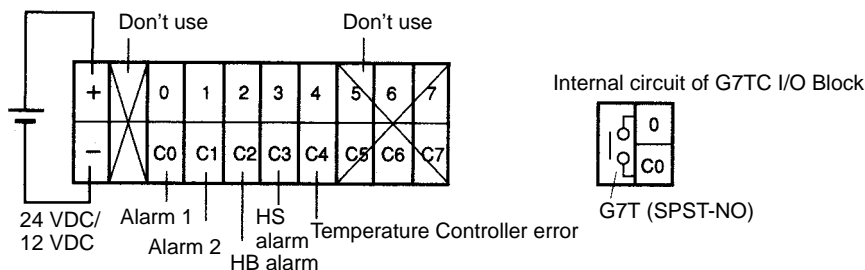


ALM: Temperature Controller error, Alarm 1 and 2, HB, and HS

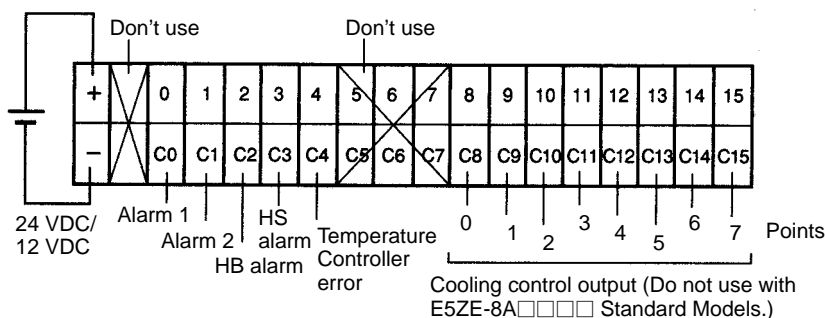
Connecting G7TC I/O Blocks

The following diagrams show an ALARM connector connected to a G7TC-OC08 and G7TC-OC16 I/O Block respectively.

G7TC-OC08



G7TC-OC16

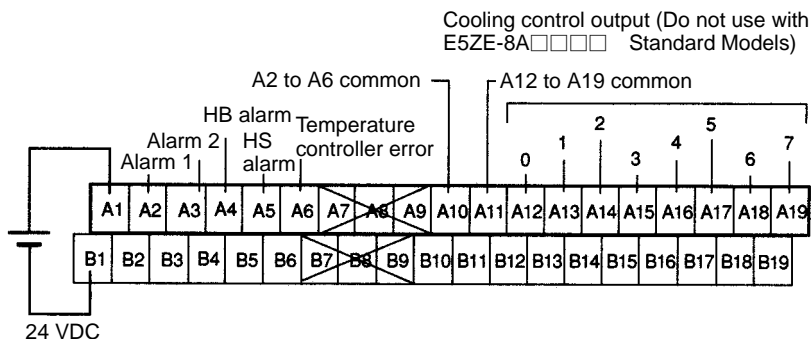


- Do not use terminals marked "Don't use." Doing so may cause the E5ZE or G7TC to malfunction.
- G7TC-OC08 I/O Blocks cannot be used with E5ZE-8V□□□□ Heating and Cooling Control Models.
- Refer to the separate datasheets for details on precautions for the I/O Blocks.

Connecting G7VC I/O Blocks

The following diagram shows an ALARM connector connected to a G7VC-□□16 I/O Block.

G7VC-□□16



- Do not use terminals marked "Don't use." Doing so may cause the E5ZE or G7VC to malfunction.

- The following G7VC-O□16 I/O Blocks for output are available.
 - G7VC-OC16: Relay outputs
 - G7VC-OA16: SSR AC outputs
 - G7VC-OD16: SSR DC outputs
- Refer to the separate datasheets for details on precautions for the I/O Blocks.

2-7 Connecting Communications

The wiring and connections of the communications interfaces are described here. For further details, refer to the following manuals.

Serial communications: *E5ZE Multipoint Temperature Controller Communications Manual (H77)*

CompoBus/D communications: *E5ZE-8 Multipoint Temperature Controller CompoBus/D Communications Manual (H104)*

2-7-1 RS-232C

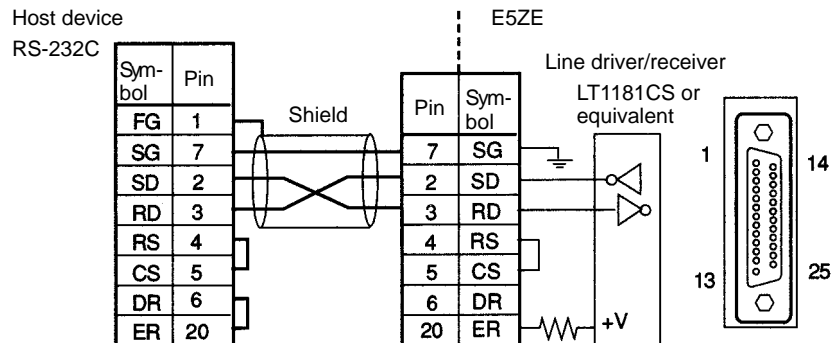
- Mount the RS-232C Communications Unit on the E5ZE Serial Communications Model.
- The E5ZE is connected to the RS-232C interface in the ratio of 1:1.
- Refer to the *E5ZE Multipoint Temperature Controller Communications Manual (H77)* for details on communications.

Cable Connections

- The maximum cable length is 15 m. To extend the transmission path, use the OMRON Z3RN RS-232C Optical Interface.
- Use shielded twisted-pair cable with a wire thickness of AWG28 minimum.
- Use the following OMRON 25-pin D-sub Connectors or equivalent.

Plug: XM2A-2501 Connector

Hood: XM2S-2511 Hood



- The E5ZE's RS-232C communications do not support a CD (carrier detect) signal from the host device. If the CD signal is required, provide support at the host device.

When using the RS-232C auxiliary setting jack on the E5ZE-8□□□D1□B (CompoBus/D Model with casing), use the following Connecting Cables.

- ES100-CT021-202 (25-pin)

This Cable is used to connect the E5ZD-SDL1 Setting Display Unit.

- ES100-CT023-202 (9-pin)

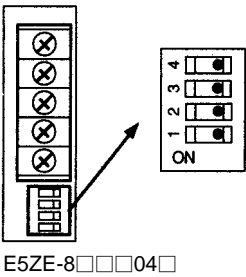
The RS-232C auxiliary setting jack is designed to be used only temporarily for initial settings and performing maintenance. Do not use the RS-232C auxiliary setting jack to mount the E5ZE to a device. If the RS-232C auxiliary setting jack is left connected for a long time, the reliability of the connection will deteriorate.

2-7-2 RS-422 and RS-485

- Mount the RS-422/485 Communications Unit on the E5ZE Serial Communications Model.
- The E5ZE can be connected to the communications interface in the ratio of 1:N with a maximum of 16 Units connected.
- The maximum cable length is 500 m.
- Refer to the *E5ZE Multipoint Temperature Controller Communications Manual (H77)* for further details on communications.

Parameter Settings

- Specify the following parameters using the communications DIP switch. Always turn OFF the power before changing the switch.
 - Communications interface
 - Terminating resistance



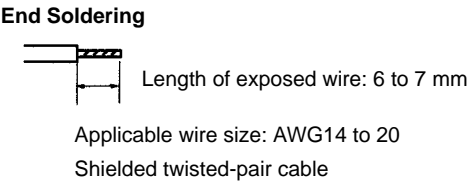
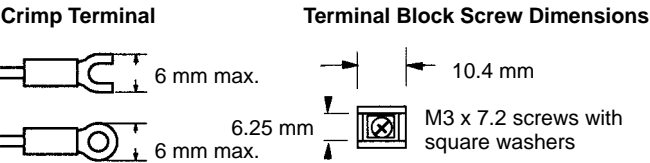
Setting		Pin	RS-422	RS-485
Terminating resistance (pins 3 and 4)	Yes	Pin 4 Pin 3	ON ON	ON ON
	No	Pin 4 Pin 3	OFF OFF	OFF OFF
Interface (pins 1 and 2)		Pin 2 Pin 1	ON ON	ON ON

- Set the terminating resistance at both ends of the transmission path including the host device. If terminating resistance is to be set at devices other than the E5ZE, make sure that the total terminating resistance value of the transmission paths is at least 100 Ω.

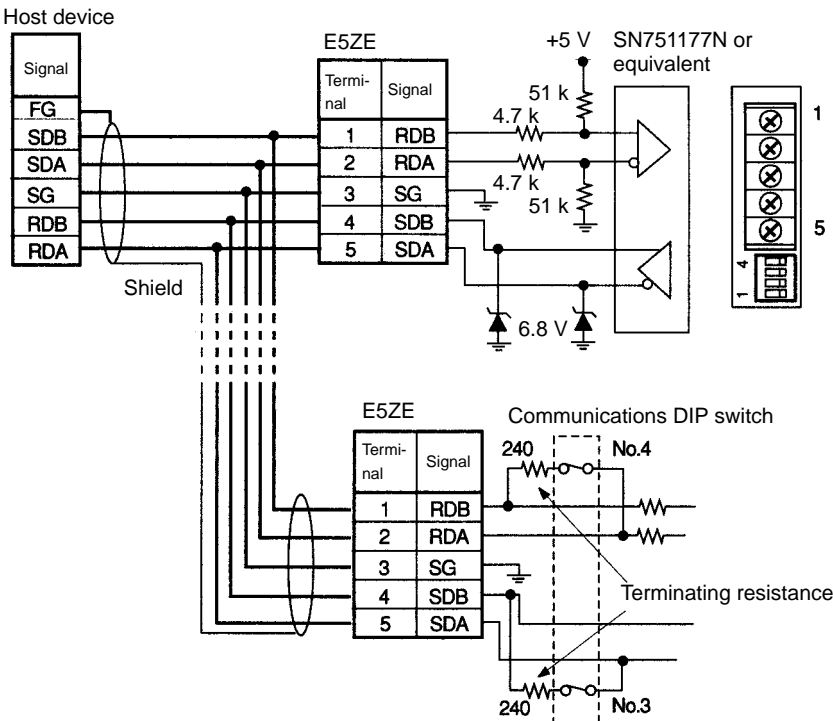
Wiring the Communications Terminal Block

- Always turn OFF the power supply before wiring.
- Wire the power lines and communications cables separately to prevent noise interference.
- Use crimp terminals or solder the wire ends when wiring the terminals.
- Tighten the terminal screws to a torque of 0.59 N • m, or 6 kgf • cm.
- Do not apply a force of more than 100 N or 10.2 kgf to the terminal screws.
- Do not bend any crimp terminals after connecting them to the terminal screws and tightening.

- The following crimp terminals can be used.

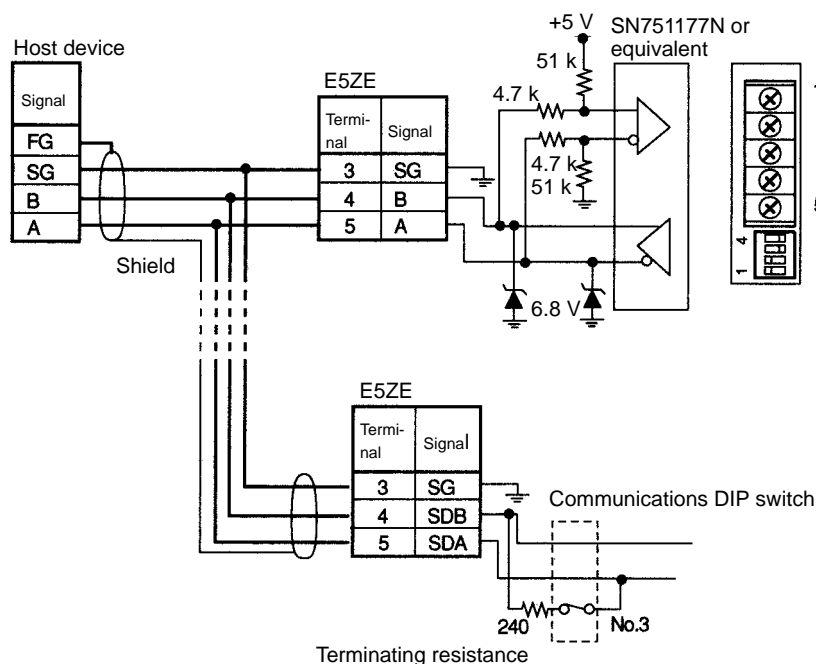


RS-422 Wiring



RS-485 Wiring

- Do not use terminals 1 and 2.



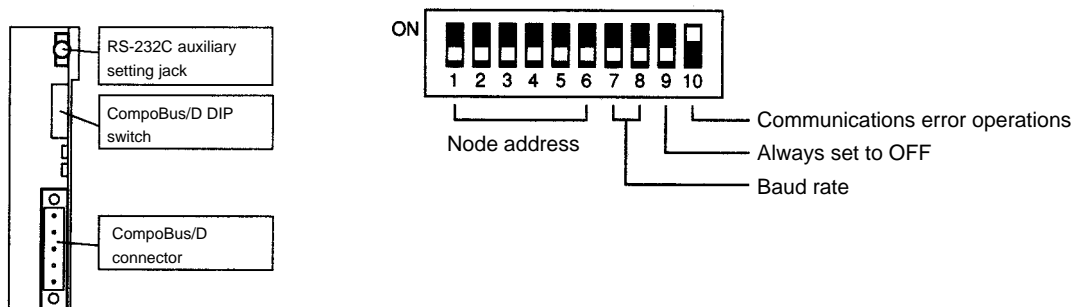
2-7-3 CompoBus/D Interface

- Use the E5ZE-8□□□D1□B (with casing) for CompoBus/D communications.
- Refer to the *CompoBus/D Operation Manual (W267)* for details on CompoBus/D Network configurations and connection methods.
- Refer to the *E5ZE-8 CompoBus/D Communications Manual (H104)* for details on CompoBus/D communications applications.

Communications Settings

Set the following parameters using the CompoBus/D DIP switch.

- Node addresses
- Baud rate
- E5ZE operation for CompoBus/D communications errors.



- Pins 1 to 6 are used to set the node address. The factory setting is 00 (pins 1 to 6 all OFF).

Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6
2^0	2^1	2^2	2^3	2^4	2^5

- Pins 7 and 8 are used to set the baud rate. Be sure to set the baud rate to match that of the CompoBus/D Master Unit. The factory setting is 125 kbps (pins 7 and 8 OFF).

Baud rate	Pin 7	Pin 8
125 kbps	OFF	OFF
250 kbps	ON	OFF
500 kbps	OFF	ON
Not used	ON	ON

- Pin 10 is used to set the E5ZE operation when a CompoBus/D communications error occurs.

ON: The E5ZE continues to operate according to the data that was transmitted immediately before the error occurred.

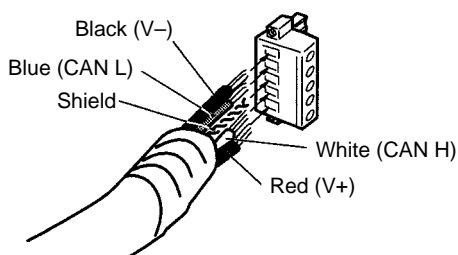
OFF: The E5ZE stops operating.

The factory setting is ON.

- A CompoBus/D transmission error is a connection time-out error or a transmission data error that has occurred during communications between the CompoBus/D Master and the E5ZE.

Cable Connections

- The following diagram shows how the CompoBus/D connector is wired.
- Multi-drop connections cannot be used.



Number of Connectable Units

The number of E5ZE-8□□□D1□B CompoBus/D Models with casing that can be connected to one CompoBus/D Master Unit depends on the capability of the Master being used. The maximum number of Units that can be connected to one Master is calculated according to the number of words allocated to the E5ZE-8□□□D1□B and the number of words that can be used by the Master.

- The number of words allocated to the E5ZE-8□□□D1□B is as follows:

Inputs: 14 words

Outputs: 9 words

Message communications (FINS messages) are used.

Example: C200HW-DRM21-V1 CompoBus/D Master Unit without Configurator

- The number of words used by the Master is 50 input words and 50 output words (current as of July 31, 1998). The E5ZE-8□□□D1□B is allocated 14 words, so the maximum number of Units that can be connected is as follows:

$$50 \div 14 = 3 \text{ Units.}$$