

E5CC-T Digital Controller

EN INSTRUCTION MANUAL

Thank you for purchasing the OMRON E5CC-T Digital Controller. This manual describes the functions, performance, and application methods needed for optimum use of the product. Please observe the following items when using the product.

- This product is designed for use by qualified personnel with a knowledge of electrical systems.
- Before using the product, thoroughly read and understand this manual to ensure correct use.
- Keep this manual in a safe location so that it is available for reference whenever required.

OMRON Corporation
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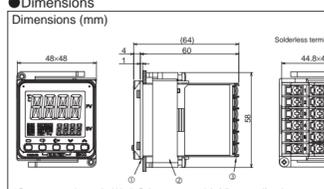
Refer to the E5C-T Digital Controllers User's Manual (Cat. No. H185) for detailed application procedures.

Safety Precautions

Indicates a potentially hazardous situation which, if not avoided, is likely to result in minor or moderate injury or property damage. Read this manual carefully before using the product.

Wiring

Dimensions (mm)



Do not remove the terminal block. Doing so may result in failure or malfunction.

A Serial Tool port is provided on the upper of the product. Use this port to connect a personal computer to the product when using the Setup Tool. E5C-CIF2 USB-Serial Conversion Cable is required to connect the personal computer to the product. (Do not use the USB-Serial Conversion Cable left permanently connected.)

Names of Parts on Front Panel

Level key: Press this key to change levels.
Mode key: Press this key to move across the items within the setting level.
Up and Down keys: Press these keys to increase or decrease the values displayed on the LCD.
Shift key (PF key): Pressing this key operates the function that has been set on the PF setting of the advanced function setting level.

Operation indicators: Process value of set data type.
OUT1 to 2: Control outputs 1 to 2 indicators.
TUNE: Lit when Setting Change Protect is ON (disables the Up and Down Keys).
MANU: Lit during Manual Mode.
WAIT: Lit during a program wait.

Operation Menu

Input Type

Input type	Input	Setting	Setting range
Platinum resistance thermometer	PT100	0	-200 to 850
	JPT100	3	-199.9 to 900.0
	JPT100	3	-199.9 to 900.0
Thermocouple	K	5	-200 to 1300
	J	6	-200 to 500.0
	E	11	-200 to 800
	N	14	-200 to 1300
	R	16	0 to 1700
	B	18	100 to 1800
	PL1	19	0 to 2300
	PL2	20	0 to 1500
	Infared	21	0 to 90
	ES18	23	0 to 165

Alarms

Setting	Alarm type	Alarm output function
1	No alarm function	Output OFF
2	Deviation upper/lower limit	Output ON
3	Deviation upper limit	Output ON
4	Deviation lower limit	Output ON
5	Deviation upper/lower range	Output ON
6	Deviation upper limit standby sequence ON	Output ON
7	Deviation lower limit standby sequence ON	Output ON
8	Absolute value upper limit	Output ON
9	Absolute value lower limit	Output ON
10	Absolute value upper limit standby sequence ON	Output ON
11	Absolute value lower limit standby sequence ON	Output ON
12	LBA (oil for alarm 1)	Output ON
13	PV Change Rate Alarm	Output ON
14	SP absolute value upper limit	Output ON
15	SP absolute value lower limit	Output ON
16	MV absolute value upper limit	Output ON
17	MV absolute value lower limit	Output ON

Initial Setting Level

Control method (Heating/cooling) selection, scaling, and alarm settings.

Operation Level

Process value display, alarm reset, and manual operation settings.

PID Setting Level

PID setpoint, gain, and integral time settings.

Adjustment Level

Manual reset value, hysteresis, and alarm level adjustments.

Error Display (troubleshooting)

No. display	Meaning	Action	Status at error
SERR (S Em)	AI converter error	Check the setting of the Input Type parameter, check the input wiring, and check the status of the temperature sensor.	Control OFF
E111 (E111)	Memory error	Turn the power OFF and back ON again. If the display remains the same, the controller must be repaired. If the display is restored to normal, then a probable cause is a power fluctuation affecting the control system. Check the electrical noise.	Control OFF

Protect Level

Parameter mask, initial setting, and protection level settings.

Conformance to Safety Standard

Reinforced insulation is provided between input power supply, relay outputs, and between other terminals.

Conformance to EN/IEC Standards

This is a class A product. In residential areas it may cause radio interference, in which case the user may be required to take adequate measures to reduce interference.

Other functions

Refer to the E5C-T Digital Controllers User's Manual (Cat. No. H185) for information on the Advanced Function Setting Level, Manual Control Level, and other functions.

Specifications

Power supply voltage	Operating voltage range	Power consumption
100 to 240 VAC, 50/60 Hz or 24 VDC	85 to 110% of the rated voltage	7.5 VA max. (100 to 240 VAC)

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Control output 1	Control output 2	Control method
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Transfer output

250 VAC, 2.0 A max. (resistive load). 250 VAC, 0.5 A max. (inductive load).

Installation

Individual mounting (mm) and side-by-side mounting (mm) diagrams.

Connections

Aplicability of the electric terminals varies with the type of machine.

Dimensions

Size and depth specifications for the controller.

Warning Symbols

Minor injury due to electric shock may occasionally occur. Do not touch the terminals while power is being supplied.

Caution

Electric shock, fire, or malfunction may occasionally occur. Do not allow metal objects, conductors, cuttings from installation work, or moisture to enter the Digital Controller's Setup Tool ports.

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形 E5CC-T

デジタル調節計

JPN 取扱説明書

このたびは、オムロン製品をお買い上げいただきまして、誠にありがとうございます。この取扱説明書では、この製品の使用方法、必要な機能、性能、使用方法などの情報を記載してあります。この製品をご使用に際して下記のことを守ってください。

●この取扱説明書は電気工事の専門家に読んでください。

●この取扱説明書をよくお読みになり、十分に理解のうえ、正しく使用してください。

●この取扱説明書はいつでも参照できるように大切に保管ください。

安全上の要点

製品の動作不良、誤動作または性能・機能への影響が期待できず、以下のことを守ってください。不具合や事故に起因する怪我や損害は、仕方の取扱いにしてください。

●電源電圧の誤差が許容範囲を超えないようにしてください。

●電源電圧の急激な変動に注意してください。

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安全上のご注意

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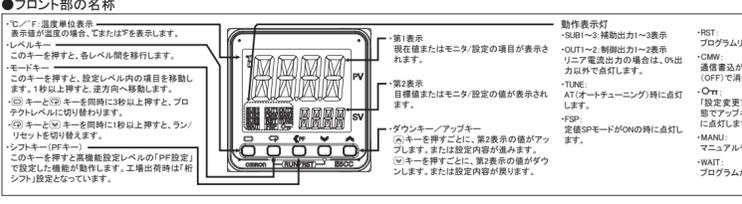
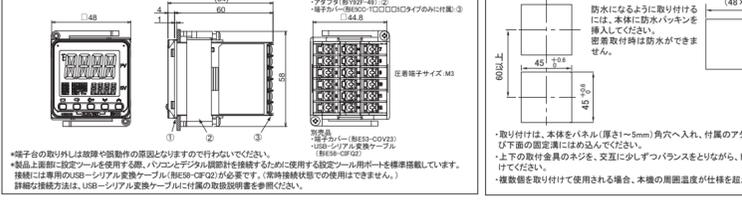
配線

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操作メニュー

セツの種類	セツ仕様	設定範囲
測定抵抗	P100	0 ~ 200-8500 / 199-99999
	JK100	0 ~ 199-9999 / 199-99999
		0 ~ 100-1000 / 0.0-210.0
	K	0 ~ 200-1000 / 300-2300
		0 ~ 200-1000 / 300-2300
	J	0 ~ 100-8500 / 100-1800
		0 ~ 200-8500 / 300-2300
	E	0 ~ 200-8500 / 300-2300
		0 ~ 199-9999 / 199-99999
	L	0 ~ 100-8500 / 100-1800
0 ~ 200-8500 / 300-2300		
N	0 ~ 200-1000 / 300-2300	
	0 ~ 200-1000 / 300-2300	
M	0 ~ 100-8500 / 100-1800	
	0 ~ 200-8500 / 300-2300	
S	0 ~ 100-8500 / 100-1800	
	0 ~ 200-8500 / 300-2300	
W	0 ~ 100-8500 / 100-1800	
	0 ~ 200-8500 / 300-2300	
RL	0 ~ 100-8500 / 100-1800	
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