OMRON

<div style="background:cyan">

Digital Temperature Controllers
E5□Z

</div>

1/16, 1/8, and 1/4 DIN Temperature Controllers Join the Best-selling E5□Z Series

• Models available with either temperature inputs or analog inputs.
• A wide range of functions, such as a loop break alarm (LBA), manual output, and transfer output.
• Easy-to-read 11-segment display.
• Faster sampling at 250 ms.
• Setting Tool port provided as a standard feature for easy connection to personal computers.
• New protocol called Modbus is installed in the models with communications.

CE c⅏us

E5□Z Series

Digital Position-proportional Controller

E5CZ	E5EZ	E5AZ	E5EZ-PRR
1/16 DIN	1/8 DIN	1/4 DIN	1/8 DIN
NEW	*NEW*	*NEW*	

Contents

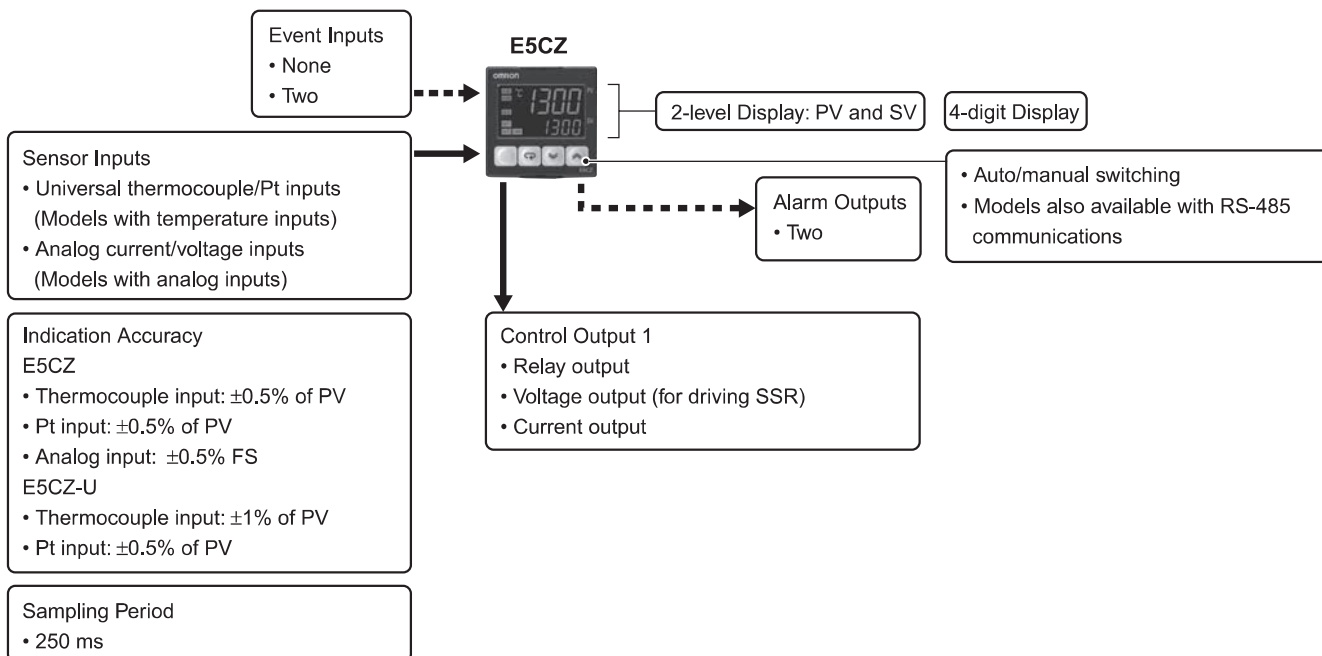## This Best-selling General-purpose 48×48-mm Temperature Controller Is Now Even Better.

• Controllers now available with analog inputs.
• Faster sampling at 250 ms.
• Transfer output provided for easy output to recorders.
• Models available with a loop break alarm (LBA) and heater short alarm (HS alarm).
• Easy setting with 11-segment displays.
• Setting protection indicator informs operator when protection is enabled.
• Manual output provided.
• New protocol called Modbus is installed in the models with communications.
• USB-Serial conversion cable is available.

Note: Refer to Precautions on page 33.

48 × 48 mm
E5CZ

48 × 48 mm
E5CZ-U

NEW

Main I/O Functions

Event Inputs
• None
• Two

E5CZ

2-level Display: PV and SV | 4-digit Display

Sensor Inputs
• Universal thermocouple/Pt inputs
  (Models with temperature inputs)
• Analog current/voltage inputs
  (Models with analog inputs)

Alarm Outputs
• Two

• Auto/manual switching
• Models also available with RS-485 communications

Indication Accuracy
E5CZ
• Thermocouple input: ±0.5% of PV
• Pt input: ±0.5% of PV
• Analog input: ±0.5% FS
E5CZ-U
• Thermocouple input: ±1% of PV
• Pt input: ±0.5% of PV

Control Output 1
• Relay output
• Voltage output (for driving SSR)
• Current output

Sampling Period
• 250 ms

Model Number Structure

Model Number Legend

Controllers

E5CZ-☐2M☐☐
    1 2 3 4 5

1. Control Output 1
 R: Relay output
 Q: Voltage output (for driving SSR)
 C: Current output
2. Number of Alarms
 2: Two alarms
3. Option
 Blank: None
 M: Option Unit can be mounted.
4. Input Type
 T: Thermocouple, infrared sensor/platinum resistance thermometer
 L: Analog current/voltage input
5. Power Supply Voltage
 Blank: 100 to 240 VAC
 D: 24 VAC/VDC

Option Units

E53-CZ☐☐
    1 2 3

1. Applicable Controller
 CZ: E5CZ
2. Function 1
 Blank: None
 H: Heater burnout/Heater short detection (CT1)
3. Function 2
 B: Two event inputs
 03: RS-485 communications

Note: Not all combinations of function 1 and function 2 specifications are possible for Option Units (E53-CZ☐☐).

Ordering Information

Controllers with Terminal Blocks

Size	Power supply voltage	Input type	Alarm output	Mounting option units	Control output		Previous model	New model
1/16 DIN 48 × 48 × 78 (W × H × D)	100 to 240 VAC	Thermocouple or Resistance thermometer	2	No	Relay output		E5CZ-R2	**E5CZ-R2T**
					Voltage output (for driving SSR)		E5CZ-Q2	**E5CZ-Q2T**
				Yes	Relay output		E5CZ-R2M	**E5CZ-R2MT**
					Voltage output (for driving SSR)		E5CZ-Q2M	**E5CZ-Q2MT**
					Current output		E5CZ-C2M	**E5CZ-C2MT**
		Analog (current/voltage)	2	Yes	Relay output		None	**E5CZ-R2ML**
					Voltage output (for driving SSR)		None	**E5CZ-Q2ML**
					Current output		None	**E5CZ-C2ML**
	24 VAC/VDC	Thermocouple or Resistance thermometer	2	Yes	Relay output		E5CZ-R2MD	**E5CZ-R2MTD**
					Voltage output (for driving SSR)		E5CZ-Q2MD	**E5CZ-Q2MTD**
					Current output		E5CZ-C2MD	**E5CZ-C2MTD**
		Analog (current/voltage)	2	Yes	Relay output		None	**E5CZ-R2MLD**
					Voltage output (for driving SSR)		None	**E5CZ-Q2MLD**
					Current output		None	**E5CZ-C2MLD**

Option Units

One of the following Option Units can be mounted to provide the E5CZ with additional functions.

Functions			Previous model	New model
Communications RS-485			E53-CN03N	**E53-CZ03**
Communications RS-485	Heater burnout		E53-CNH03N	**E53-CZH03**
		Event inputs	E53-CNBN	**E53-CZB**
	Heater burnout	Event inputs	E53-CNHBN	**E53-CZHB**

Note: Option Units cannot be used for plug-in models.
 These Option Units are applicable only to models released after October 2008.

E5CZ/E5CZ-U

Model Number Structure

Model Number Legend (Plug-in-type Controllers)

E5CZ-☐2T☐U
    1 2 3 4 5

1. Output Type
  R: Relay
  Q: Voltage output (for driving SSR)
2. Number of Alarms
  2: Two alarms
3. Input Type
  T: Thermocouple, infrared sensor/platinum resistance
    thermometer

4. Power Supply Voltage
  Blank: 100 to 240 VAC
  D: 24 VAC/VDC
5. Plug-in type
  U: Plug-in type

Ordering Information (Plug-in-type Controllers)

Plug-in-Type Controllers

Size	Power supply voltage	Input type	Alarm output	Control output	Previous model	New model
1/16 DIN	100 to 240 VAC	Thermocouple or Resistance thermometer	2	Relay output	None	E5CZ-R2TU
				Voltage output (for driving SSR)	None	E5CZ-Q2TU
	24 VAC/VDC	Thermocouple or Resistance thermometer	2	Relay output	None	E5CZ-R2TDU
				Voltage output (for driving SSR)	None	E5CZ-Q2TDU

Accessories (Order Separately)

USB-Serial Conversion Cable

Model
E58-CIFQ1

Terminal Cover

Connectable models	Terminal block models
Model	E53-COV17

Waterproof Packing

Model
Y92S-29

Note: The Waterproof Packing is included with the Controller only for models with terminal blocks.

Current Transformers (CTs)

Hole diameter	Model
5.8 dia.	E54-CT1
12.0 dia.	E54-CT3

Adapter

Connectable models	Model
Terminal block models	Y92F-45

Note: Use this Adapter when the panel has been previously prepared for the E5B☐.

Sockets (for Plug-in Models)

Type	Model
Front-connecting Socket	P2CF-11
Front-connecting Socket with Finger Protection	P2CF-11-E
Back-connecting Socket	P3GA-11
Terminal Cover for Back-connecting socket with Finger Protection	Y92A-48G