

Industry-leading solutions

OMRON

Digital Temperature Controllers

E5□C Series



Leading innovation
in temperature controllers

- Compact design with high performance
- Intuitive and user-friendly interface
- High-Quality Display



Industry-leading Solutions

Control panels are the heart of manufacturing. Improving the efficiency, process and design of the control panel ultimately leads to a more reliable and productive manufacturing process. OMRON has developed an innovative solution to drastically reduce wiring time, downsize, and offer exceptional vibration resistant connections for your panel.



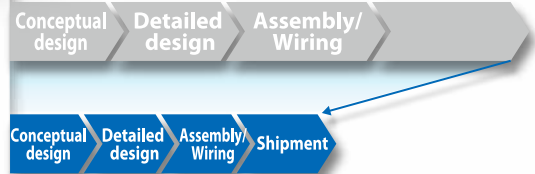
Greater
vibration
resistance

**Push-in Plus
Technology**

Less wiring
time required

Maintenance-free
terminal connections

Process



Panels

People

Leading Innovation in Temperature Controllers



E5CC-B

Push-In Plus
terminal block
48 X 48 mm
(1/16 DIN)

E5EC-B

Push-In Plus
terminal block
48 X 96 mm
(1/8 DIN)

E5DC-B

Push-In Plus
terminal block
width: 22.5 mm

E5CC-U

Plug-in models
48 X 48 mm
(1/16 DIN)

E5DC

DIN rail mount
width: 22.5 mm

E5DC-B

Push-In Plus
terminal block
width: 22.5 mm



E5GC

Screw
terminal block/
Screw-less clamp
terminal block
48 X 24 mm
(1/32 DIN)

E5CC

Screw terminal
block
48 X 48 mm
(1/16 DIN)

E5EC

Screw terminal
block
48 X 96 mm
(1/8 DIN)

E5AC

Screw terminal block
96 X 96 mm
(1/4 DIN)

Compact design with high performance

- Downsized to improve panel space.
- 50 ms sampling period for fast and precise regulation
- Unique 2-PID control provides greater control stability

Intuitive and user-friendly interface

- Designed for quick setup and operation.

High Quality Display

- Wide viewing angle and high-contrast LCD for high visibility.

Certified for main safety
standards.



*CSA conformance evaluation by UL.

A wide range of temperature controllers to handle various control panel/equipment sizes

Reduction in panel space

The temperature control body depth has been reduced by 33% from the previous design allowing the controller to fit in the tightest spaces.



Small size doesn't sacrifice visibility

Even with the E5GC's 48 x 24 size, OMRON's high contrast display provides crystal clear temperature controller information to the operator.



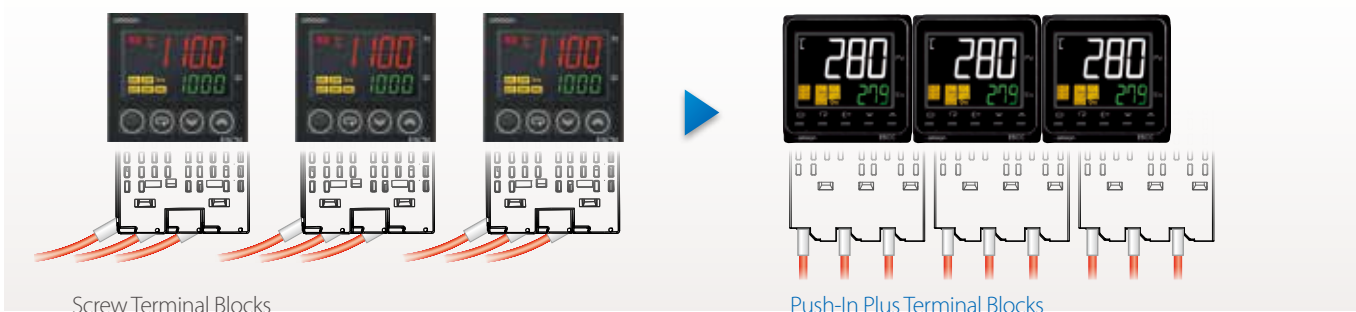
Save in-panel space with the ultra-slim E5DC-body

At 22.5mm wide, the E5DC can save a great amount of DIN space when grouped together.



Streamlining the wiring

With Push-In Plus technology, wiring is streamlined to improve cleanliness and functionality of the routing.



Improving the Push-in Plus Offering

The new E5DC-B Series Temperature Controller is the latest model to offer Push-In Plus Technology.

This model is not only space-saving for easy installation in control panel but also reduces wiring work.

NEW
E5DC-B



Eliminate wires with interconnection ports

The E5DC-B's modular body features interconnection ports that allow up to 16 units to be grouped together.



NEW
E5DC-B

Removable Terminal block allows for quick and easy replacement

The removable terminal block eliminates the need to rewire the temperature controller when replaced or serviced.



E5DC-B
E5DC

Removing from
the Terminal Block
The image is for
illustration purpose
only.

*Hooks must be pressed to remove from the terminal block.

Greater efficiency in design, assembly and operation

Design

Reduce PLC Programming



STEP 3
Set the communications settings in the PLC to agree with those in the Temperature Controllers.

COMMUNICATIONS START

- In addition to PLC integration, each temperature controller can copy each other's settings and functionality

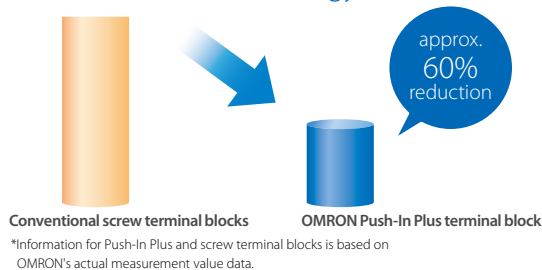
Assembly and Wiring

Save time and effort in wiring

Just Insert Wires: No Tools Required

Now you can use Push-In Plus technology to reduce the time and work involved in wiring.

Greatly Reduce Wiring Work with Push-In Plus technology



Maintenance Free Terminal Connections

Screw terminals require re-tightening. Push-In Plus terminal blocks are maintenance-free.

Temperature Sensors

OMRON's E52 Temperature Sensors are available with ferrules to help simplify wiring



Easy to Insert

OMRON's Push-In Plus terminal blocks are as easy as inserting to an earphone jack. They help reduce the work load and improve wiring quality.

Exceptional Vibration Resistance

Push-In Plus terminals offer a higher clamping force compared to screw terminals. This offers an exceptional vibration resistant connection that prevents loose wiring.

IEC standard (cable diameter)	Push-In Plus terminal block	Screw terminal block
20 N min. (AWG20,0.5 mm ²)	125 N	112 N

*Information for Push-In Plus and screw terminal blocks is based on OMRON's actual measurement value data.

Setup, Adjustment, and Operation

CX-Thermo Special Setup Software (Sold Separately) Effectively Reduces Work from Setup to Adjustment and Operation.

You can perform the following operations with the CX-Thermo.

- Setting and saving parameters
- Logging, browsing, and exporting data
- Printing parameter lists, and more

Also, power is supplied through the Bus Power, so you do not have to wire the power supply to set parameters.

*USB-Serial Conversion Cable
(Sold Separately)



Innovating usability

High Quality Display

Big white readings provide superior visibility in low light and far distances.

Life Size



High-contrast displays enable easier confirmation regardless of ambient lighting conditions.



A wide viewing angle was achieved with the LCDs to enable easy confirmation of the PV.

Quick and easy setup

Functions are provided to reduce work in operating and changing settings for the Controllers.

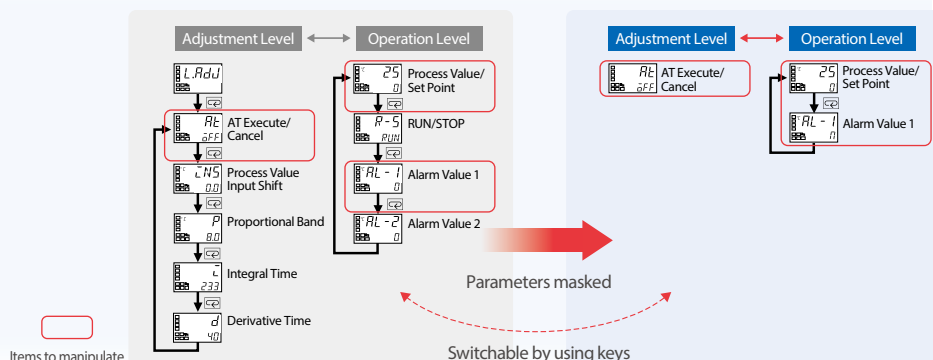
Just press the shift key (<<PF) to move the digit. This simplifies numeric entry at worksite.



Just press the shift key to move the digit.

CX-Thermo Functions

Use parameter masks to display only the required parameters. The time required to change settings, such as for changeovers, is greatly reduced.



Product lineup

Size Terminal type	48 X 24 mm (1/32 DIN)	48 X 48 mm (1/16 DIN)	48 X 96 mm (1/8 DIN)	96 X 96 mm (1/4 DIN)	DIN 22.5-mm width
Push-In Plus terminal block		E5CC-B 	E5EC-B 		E5DC-B NEW 
Screw terminal block	E5GC* 	E5CC 	E5EC 	E5AC 	E5DC 
Plug-in models		E5CC-U 			

*Screwless clamp terminal blocks also available.
Refer to the E5□C Series Datasheet (Cat. No. H177) for details.

Related Products

	
Product Name	E52
Type	Temperature sensor
Description	Pt100, K, J, R, types available

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