

Slim-line modular
temperature controllers

E5ZN SERIES

in-panel temperature control solutions



Advanced Industrial Automation

OMRON



At just 22.5 mm wide, Omron's new E5ZN temperature controller series introduces one of the slimmest dual-loop controllers on the market. The E5ZN features all standard temperature control functionality, and thanks to its innovative design, mounting it onto a DIN-rail is simply a matter of click-and-go! Its innovative design and built-in Omron quality guarantees process stability and saves panel builders valuable installation time, space and wiring costs.

Space saving, easy to mount

Each slim-line unit controls two temperature loops, and as many as 16 units can be mounted side by side. This allows you to control up to 32 loops in the minimum amount of space, and at a lower cost-per-loop than anything the competition has to offer!



- Now with:
- DeviceNet option
 - Retransmission outputs
 - Current control



Key benefits of Omron's E5ZN Temperature Controllers

Quick and easy to set up

The E5ZN consists of two parts; a DIN-rail socket and a dual-loop plug-in unit. Only the socket has to be wired; voltage throughput and communications are distributed through a bus connector system inside the socket. The plug-in unit simply snaps into and out of the socket, so it can be removed at any time for maintenance or replacement, without disturbing the wiring. And power supply and communications wiring is not required between units when they are mounted side by side. This kind of flexibility is not available from any other in-panel temperature controller!

Designed for in-panel operation

The E5ZN is specially designed for in-panel mounting, with complete process monitoring and setting functions controllable from a PC or PLC in combination with a HMI terminal. This temperature controller series offers a wide variety of applications, with units being able to perform everything from simple ON/OFF control, through standard PID loops to more complicated heating and cooling control. There's a choice of input signal types, including thermocouple, platinum RTD, non-contact sensor and 0 to 50 mV. Various outputs are available for switching or signalling other equipment. A new addition to the series is the linear current control unit, which is equipped as standard with (volt) transfer output.

Features and benefits at a glance!

- Two control loops in one 22.5 mm module
- Easy and fast replacement of modules, without rewiring
- Voltage (SSR), Transistor or Current output
- Two alarm outputs as standard
- Heater burnout alarm or retransmission output
- Omron's renowned quality and reliability built in

Versatile linking and communications capabilities

You can use the E5ZN as a stand-alone unit in combination with a setting console for programming and monitoring the controller. Alternatively, you can make full use of its RS-485 communications capabilities and distribute up to 16 two-loop controllers to individual machine parts, linking them up and having communication and monitoring control over your whole application! In this way the E5ZN not only saves considerably on wiring costs, it offers the kind of comprehensive temperature control solution that large-scale operations require. In addition a new model, the E5ZN-DRT, enables the units to be connected to DeviceNet.

User-friendly programming software

Setting up the E5ZN remotely and programming it is possible using Omron's support tool. The software package features a user-friendly interface in which all parameters are at your fingertips, ready to be configured. The package also enables you to benefit from Omron's unique fine-tuning facility by allowing you to tailor the E5ZN exactly to the system: you can decide between reducing overshoot, improving stability, increasing speed, or a combination of all three. And Omron's CX-Supervisor is also available, containing a range of graphical objects that clearly present process information if you are operating from a PC or PLC.

Ordering information

Name	Number of control points	Control output	Auxiliary output	Functions	Input type (*)	Model	
Temperature controller	2	Voltage output (for SSR's)	Transistor output: 2 pts (sinking)	Heater burnout alarm	Heating or heat/cool control is selectable	Thermocouple	E5ZN-2QNH03TC-FLK
			RTD			E5ZN-2QNH03P-FLK	
			Transistor output: 2 pts (sourcing)			Thermocouple	E5ZN-2QPH03TC-FLK
			RTD			E5ZN-2QPH03P-FLK	
		Transistor output	Transistor output: 2 pts (sinking)	Event input: 1 point per unit	Thermocouple	E5ZN-2TNH03TC-FLK	
			RTD		E5ZN-2TNH03P-FLK		
			Transistor output: 2 pts (sourcing)		Thermocouple	E5ZN-2TPH03TC-FLK	
			RTD		E5ZN-2TPH03P-FLK		
		Analogue output (current output) Functions	Transistor output: 2 pts (sinking)	Transfer output (linear voltage output)	Thermocouple	E5ZN-2CNF03TC-FLK	
			RTD		E5ZN-2CNF03P-FLK		
			Transistor output: 2 pts (sourcing)		Thermocouple	E5ZN-2CPF03TC-FLK	
			RTD		E5ZN-2CPF03P-FLK		
Setting display unit (sold separately)	Supply voltage		Functions				
	24 VDC		To set and display all controller(s) values, storage and up-/down load of all parameters			E5ZN-SDL	
DeviceNet unit (sold separately)	24 VDC		Connects up to 16 E5ZN modules to DeviceNet (fits into Master Socket)			E5ZN-DRT	
Terminal unit (sold separately)	Terminals		Functions				
	24		Master socket equipped with terminals for power supply, communications and Display unit			E5ZN-SCT24S-500	
	18		Extension socket			E5ZN-SCT18S-500	

* Linear input only on the thermocouple version.

OMRON EUROPE B.V. Wegalaan 67-69, NL-2132 JD, Hoofddorp, The Netherlands. Tel: +31 (0) 23 568 13 00 Fax: +31 (0) 23 568 13 88 www.europe.omron.com

Austria

Tel: +43 (0) 1 80 19 00
www.omron.at

Belgium

Tel: +32 (0) 2 466 24 80
www.omron.be

Czech Republic

Tel: +420 267 31 12 54
www.omron.cz

Denmark

Tel: +45 43 44 00 11
www.omron.dk

Finland

Tel: +358 (0) 9 549 58 00
www.omron.fi

France

Tel: +33 (0) 1 49 74 70 00
www.omron.fr

Germany

Tel: +49 (0) 2173 680 00
www.omron.de

Hungary

Tel: +36 (0) 1 399 30 50
www.omron.hu

Italy

Tel: +39 02 32 681
www.omron.it

Netherlands

Tel: +31 (0) 23 568 11 00
www.omron.nl

Norway

Tel: +47 (0) 22 65 75 00
www.omron.no

Poland

Tel: +48 (0) 22 645 78 60
www.omron.com.pl

Portugal

Tel: +351 21 942 94 00
www.omron.pt

Russia

Tel: +7 095 745 26 64
www.russia.omron.com

Spain

Tel: +34 913 777 900
www.omron.es

Sweden

Tel: +46 (0) 8 632 35 00
www.omron.se

Switzerland

Tel: +41 (0) 41 748 13 13
www.omron.ch

Turkey

Tel: +90 (0) 216 474 00 40
www.omron.com.tr

United Kingdom

Tel: +44 (0) 870 752 08 61
www.omron.co.uk

For the Middle East, Africa and other countries in Eastern Europe, Tel: +31 (0) 23 568 13 00 www.europe.omron.com

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