

Technical information

Temperature Controller

Control Technology

Stand 03.2025



Description

The precise control of heating elements is crucial to maximise their efficiency, extend their lifespan, and ensure the quality of the heated process. Temperature controllers ensure that the desired temperature is accurately reached and maintained, guaranteeing optimal operating conditions and consistently high product quality.

In collaboration with Omron, a leading provider in the field of temperature control, we offer a wide range of temperature controllers suitable for various applications. Our range includes both simple analogue controllers and advanced digital universal controllers with extended features.

Features of Temperature Controllers

- High precision in temperature control
- Fast response times for consistent heat
- Support for various sensor types
- Customisable control algorithms for tailored solutions

Model Series

- E5CC
Digital temperature controller with high accuracy and user-friendliness
- E5EC
Temperature controller for versatile applications
- E5ZN
Multi-channel controller for complex applications

Measuring Range

- -50°C to +1,999°C (depending on sensor)
- 0°C to 400°C (typical industrial applications)

Inputs

- Thermocouples: K, J, T, R, S, B, E, N
- Resistance thermometers: PT100, PT1000
- Voltage inputs: 0-10V, 4-20mA

Outputs

- Relay outputs
- SSR control output (Solid State Relay)
- 4-20mA, 0-10V, 12V DC (for external controllers)

Control Methods

- On/Off, PID (Proportional-Integral-Derivative)
- Autotuning for PID parameters

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ELECTRIC FOIL HEATING SOLUTIONS

- Digital communication interfaces for easy integration
- Multi-zone control for complex applications
- Intuitive user interface for ease of operation
- Integrated alarm and safety functions for secure operation
- Standardised designs (DIN 43700) for easy installation

The overview provided relates to the most commonly used Omron temperature controllers. Depending on the requirements and application area, we can also offer specific models from other product lines.

Communication

- RS-485, Modbus RTU
- Ethernet (on higher models)
- USB for configuration and data transfer

Power Supply

- 100-240V AC
- 24V DC (on specific models)

Display

- LCD, LED, or Touchscreen (depending on model)
- Multiline display (current temperature and setpoint)

Functions

- Alarm functions for exceeding set limits
- Programmable event management options
- Time functions and delays
- Auto-tuning for optimized control parameters

Mounting Types

- DIN rail mounting
- Panel mounting

The information in this table is for guidance only and does not constitute any warranty claims.

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