

# CT425 – Temperature Controller

The capability and flexibility of the CT425 Temperature Controller allows it to be used in a wide range of applications. The CT425 is a PID temperature controller capable of reading two independent temperature sensors (RTD). By utilizing an internal solid state relay, logic voltage output, and internal mechanical relay, the controller is fully configurable. USB and a user-friendly software package allow for easy setup and use.

## Overview

- Two RTD temperature sensor inputs, Pt100 and Pt1000.
- Wide temperature sensing range.
- Three output types – Solid State Relay (SSR), Logic Voltage, and Mechanical Relay.
- All controller features are configurable through the standard USB interface.
- Each output individually configurable for any variation of PID plus On/Off and Alarm control on all outputs (PID on SSR and Logic Voltage only)
- Auto-tune feature estimates PID coefficients for several control types.
- 32-bit microprocessor executes both PID loops simultaneously at individually configurable rates up to 25 times/second.
- Data-logging capability.
- High current capacity internal switching.
- Electrically isolated switching outputs increase high voltage safety.
- AC powered models perform zero-cross detection to reduce switching noise.
- Bi-color LED status indicators provide a quick confirmation of correct operation.
- Durable mounting flanges.
- Robust terminal blocks for easy wiring.
- Epoxy potted for protection and durability.

## Specifications:

### Input Power:

Model CT425A: 120VAC, 50-60Hz  
Model CT425B: 10.5V to 60V DC  
Model CT425C: 240VAC, 50-60Hz

### Sensor Inputs:

RTD: 100Ω or 1000Ω Platinum, 0.00385Ω/Ω/°C TCR,  
2-wire connection,  
Open and shorted sensor detection



### Measurement Range:

-70°C-650°C (-94°C-1202°F), 0.25°C full-range accuracy at 25°C ambient.

**Connections:** 5mm spacing terminal block

### Output Ratings at 25°C ambient:

Output	Max Voltage	Current
120VAC Solid State (CT425A)	120VAC	6A
DC Solid State (CT425B)	60VDC	15A
240VAC Solid State (CT425C)	240VAC	3A
Mechanical Relay	250VAC/30VDC	10A
Logic Voltage	~4.4V output	25mA

### Ambient Temperature Range:

-25°C-55°C, 95% humidity, non-condensing

### Mechanical:

**Dimensions:** 5.46"L x 3.34"W x 1.22"D (13.87cm L x 8.48cm W x 3.10cm D).

**Weight:** Approximately 0.35Kg (12.3 ounces).

**Enclosure:** UL 94 5VA ABS plastic with epoxy potting.

PRELIMINARY SPECIFICATIONS – SUBJECT TO CHANGE

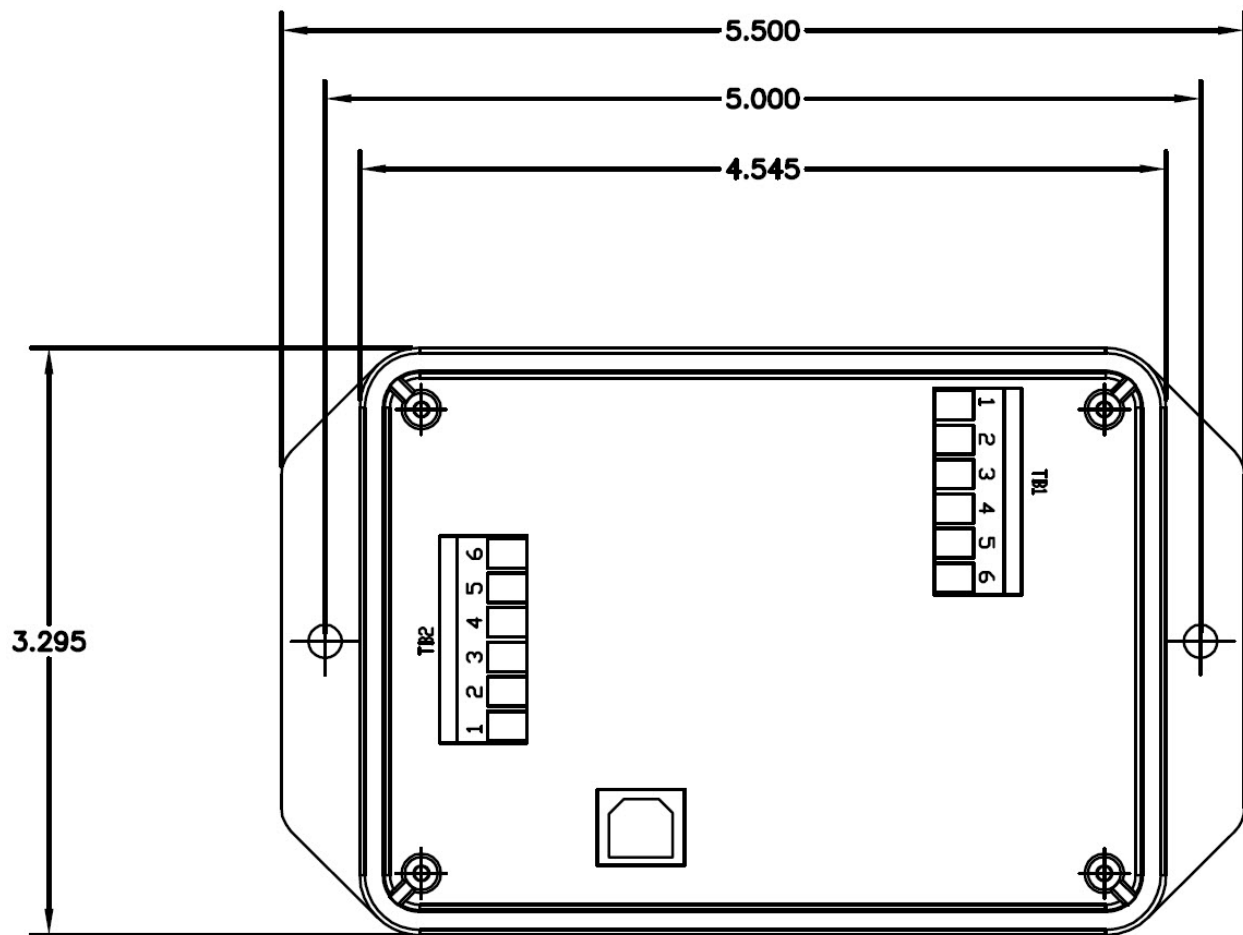
**Access: Minco**  
Sales and Support

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## How to Order

CT425	Model Number: CT425
A	<b>Power Supply:</b> A = 120VAC power, 120VAC solid state relay B = 10.5-60VDC power, DC solid state relay C = 240VAC power, 240VAC solid state relay
CT425A ← Sample Part Number	

## Dimensional Drawings



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