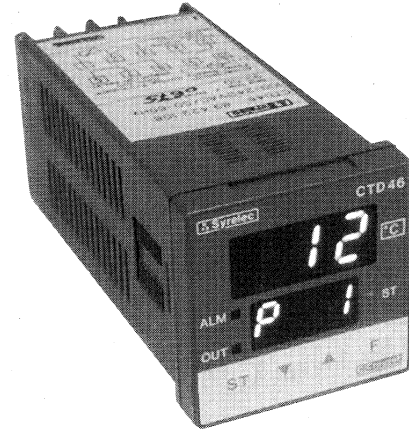


# CTD 46 AND 43 SERIES TEMPERATURE CONTROLLER

UL & CSA

- 1/16 DIN-Sized Enclosure
- 5 Temperature Control Modes
- Multiple Temperature Range (°F and °C)
- Auto-tuning
- Built-in Alarm
- Soft Start Function
- NEMA 4X Front Panel



**DESCRIPTION:**

The CTD Series is a temperature controller available in two basic models: The CTD 43 is a single display unit and the CTD 46 is a dual display unit. Both models have a temperature range of -199 to 999°F or -199 to 999°C and will accept J, K, L, or N type thermocouples and RTD's as temperature sensors. Control modes include ON-OFF or proportioning action (PID, P, PI, PD). The main output can be programmed for direct (cooling) or inverse (heating) and the relay alarm output programmed to 16 different alarm configurations. The auto-tuning "Smart" function will calculate and set automatically the optimum values for the PID mode to insure the closest control of any heating or cooling load.

**SPECIFICATIONS:**

**Input Power** ..... 100 to 240 VAC, 50/60 Hz +15% - 10%  
 24 VAC, 50/60 Hz, +15% - 10%  
 24 VDC, +15% - 10%

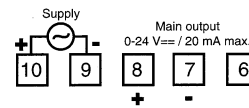
**Display**  
**CTD 43**  
**Measure/Presets Display** ..... 3 Digit (10mm) Red Leds  
**CTD 46**  
**Measure Display** ..... 3 Digit (10mm) Red Leds  
**Presets Display** ..... 3 Digit (7.5mm) Green Leds

**Output**  
**Main Output** ..... Relay: SPDT, 3 Amp 250 VAC  
 Logic: Level 1: 24 VDC/1mA  
 14 VDC/20 mA  
 Level O: 0.5 VDC Max/0 mA

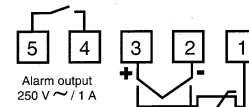
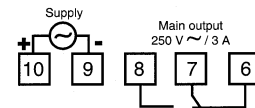
**Alarm Output** ..... Relay: SPST N.O. 1 Amp 250 VAC  
**Display Accuracy** ..... +/- 0.3% of full scale range  
**Reference Function Derating** ..... 0.1 deg C/deg C  
**Max. Power Consumption** ..... 5 VA  
**Insulation Resistance** ..... > 100 M ohm  
**Dielectric Strength** ..... 1500 Vrms  
**Sampling Period** ..... 0.5 sec  
**NEMA Rating** ..... NEMA 4x  
**Wiring Connection** ..... Screw Terminals  
**Weight** ..... 11 oz. (300g)  
**Operating Temperature** ..... 32°F to 122°F

**WIRING DIAGRAM:**

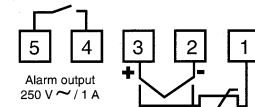
**Voltage output**



**Relay output**

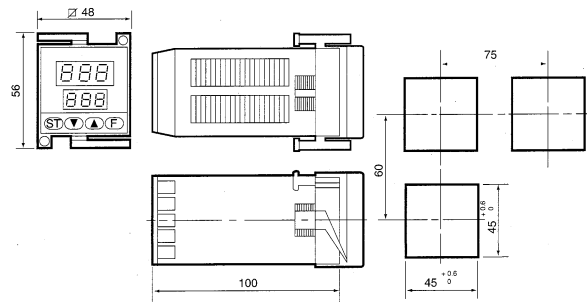


Connection of thermocouple or resistance thermometer



Connection of thermocouple or resistance thermometer

**DIMENSIONS: (mm)**



**ORDERING INFORMATION:**

**VOLTAGE**

VOLTAGE
110/220 VAC
110/220 VAC
24 VAC/DC
24 VAC/DC

**OUTPUT**

OUTPUT
Relay
Transistor
Relay
Transistor

**PART NUMBER**

PART NUMBER	
CTD43	CTD46
89421108	89422108
89421118	89422118
89421102	89422102
89421112	89422112

Products and specifications subject to change without notice.  
 Consult factory for application assistance.