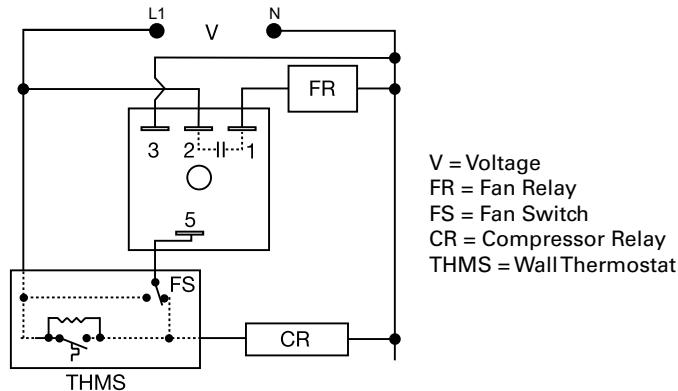


# CT SERIES

## Delay-on-Make/Delay-on-Break Timer



### Wiring Diagram



### Description

The CT Series combines a delay-on-make and delay-on-break time delay into one unit and may be used to control fan delays in heating and/or cooling equipment. The CT includes bypass circuitry to allow it to operate with cooling anticipators  $\geq 3000$  ohms. It is designed to operate in 24VAC control circuits. Several CT modules may be combined to provide sequencing of any number of loads and sequencing off of the same loads, such as electric heating elements.

#### Operation (Delay-on-Make/Delay-on-Break)

Forced Air Heating or Air Conditioning (as shown): When the thermostat closes, the compressor relay is immediately energized. At the end of a fixed delay-on-make delay (T1), the fan relay is energized. When the thermostat opens, the compressor relay is de-energized and the delay-on-break delay is initiated. On completion of the fixed delay-on-break delay (T2) the fan relay is de-energized. If the thermostat is reclosed during the delay-on-break delay, the delay-on-break delay is reset and the fan relay remains energized. If the thermostat is closed when input voltage is applied, the delay-on-make delay (T1) begins as normal.

**Reset:** Removing input voltage resets the output and time delays.

### Features & Benefits

FEATURES	BENEFITS
<b>Delay-on-Make and Delay-on-Break in one unit</b>	Simplifies wiring and installation, and optimizes efficiency of heating and cooling systems
<b>Totally solid state and encapsulated</b>	No moving parts to arc and wear out over time and encapsulated to protect against shock, vibration, and humidity
<b>Interconnectability with other CT modules</b>	Combine modules to provide sequencing on of a number of loads and sequencing off of the same loads

### Ordering Information

MODEL	DELAY-ON-MAKE (FIXED SECONDS)	DELAY-ON-BREAK (FIXED SECONDS)
CT1S30	1	30
CT1S45	1	45
CT1S8	1	8
CT1S90	1	90
CT30S1	30	1
CT45S45	45	45
CT5S300	5	300

If you don't find the part you need, call us for a custom product 800-843-8848

### Accessories



#### P1015-64 (AWG 14/16) Female Quick Connect

These 0.25 in. (6.35 mm) female terminals are constructed with an insulator barrel to provide strain relief.



#### P1023-6 Mounting bracket

The 90° orientation of mounting slots makes installation/removal of modules quick and easy.



#### P1015-18 Quick Connect to Screw Adapter

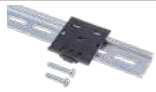
Screw adapter terminal designed for use with all modules with 0.25 in. (6.35 mm) male quick connect terminals.

## CT SERIES

### Accessories

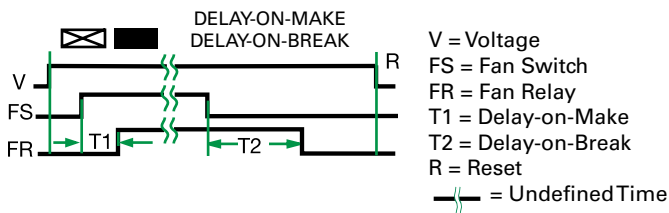


**C103PM (AL) DIN Rail**  
35 mm aluminum DIN rail available in a 36 in. (91.4 cm) length.



**P1023-20 DIN Rail Adapter**  
Allows module to be mounted on a 35 mm DIN type rail with two #10 screws.

### Function Diagram



### Specifications

#### Time Delay

**Type** Microcontroller

**Range** 1 - 600s

**Repeat Accuracy** ±5%

**Tolerance** ±20%

**(Factory Calibration)** ±20%

**Recycle Time** ≤ 300ms

**Input Voltage** 24VAC

**Tolerance** ±15%

**AC Line Frequency** 50/60 Hz

#### Output

**Type** Solid state

**Form** NO

**Rating** 0.75A steady state, 5A inrush at 55°C

**Voltage Drop** ≈ 1.25V

#### Protection

**Circuitry** Encapsulated

**Dielectric Breakdown** ≥ 2000V rms terminals to mounting surface

**Insulation Resistance** ≥ 100 MΩ

#### Mechanical

##### Mounting

Surface mount with one #10 (M5 x 0.8) screw

##### Dimensions

**H** 50.8 mm (2"); **W** 50.8 mm (2");

**D** 30.7 mm (1.21")

##### Termination

0.25 in. (6.35 mm) male quick connect terminals

#### Environmental

##### Operating/Storage

##### Temperature

-40° to 70°C / -40° to 85°C

##### Humidity

95% relative, non-condensing

##### Weight

≈ 2.4 oz (68 g)

##### Thermostat

Anticipator Resistor: ≥ 3000 Ω