

Delay On Make/Break CT Series Timing Module



- Delay on Make and Delay on Break In One
- Use For Fan Delays in Heating or Cooling Equipment
- Use For Multiple Load Sequencing
- 24 V AC Operation
- Factory Fixed Delays From 1 ... 600 s in 1 s Increments

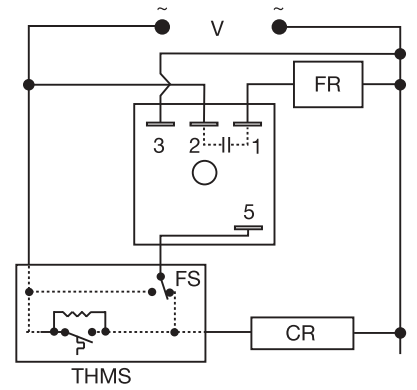
Description

The CT Series combines a delay-on-make and delay-on-break time delay into one device and may be used to control fan delays in heating and/or cooling equipment. Several CT modules may be combined to provide sequencing ON any number of loads and sequencing OFF the same loads, such as electric heating elements.

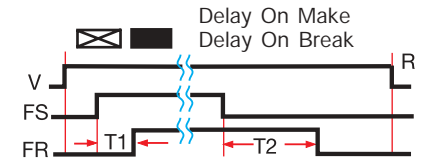
Operation

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 unit is reset and the fan relay remains energized.

Approvals:



Dashed lines are internal connections.



V = Voltage CR = Compressor Relay
FS = Fan Switch FR = Fan Relay
THMS = Wall Thermostat R = Reset
T1 = Delay On Make T2 = Delay On Break
—|— = Undefined time

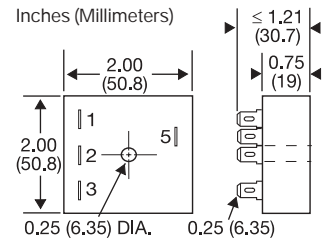
Ordering Table

CT Series	X ON Delay (Fixed) Specify time in seconds from 1 ... 600 s followed by (S)	X OFF Delay (Fixed) Specify time in seconds from 1 ... 600 s
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Example P/N: **CT1S120**

Technical Data

Time Delay									
Type	Analog circuitry								
Range	1 ... 600 s								
Repeat Accuracy	+/-5%								
Tolerance (Factory Calibration)	+/-20%								
Recycle Time vs. OFF Delay Period	<table border="1"> <thead> <tr> <th>Recycle Time *</th> <th>% of OFF Period</th> </tr> </thead> <tbody> <tr> <td>1 s</td> <td>50%</td> </tr> <tr> <td>1 m</td> <td>70%</td> </tr> <tr> <td>5 m</td> <td>90%</td> </tr> </tbody> </table> <p>* Note: Time thermostat is closed</p>	Recycle Time *	% of OFF Period	1 s	50%	1 m	70%	5 m	90%
Recycle Time *	% of OFF Period								
1 s	50%								
1 m	70%								
5 m	90%								
Input									
Voltage	24 V AC								
Tolerance	+/-15%								
Line Frequency	60 Hz								
Output									
Type	Solid state								
Form	Normally open								
Rating	0.75 A steady state, 5 A inrush at 55°C								
Voltage Drop	≅ 1.25 V								
Protection									
Circuitry	Encapsulated								
Dielectric Breakdown	≥ 2000 V RMS terminals to mounting surface								
Insulation Resistance	≥ 100 MΩ								
Mechanical									
Mounting	Surface mount with one #10 (M5 x 0.8) screw								
Package	2 x 2 x 1.21 in. (50.8 x 50.8 x 30.7 mm)								
Termination	0.25 in. (6.35 mm) male quick connect terminals								
Environmental									
Operating Temperature	-40°C ... +70°C								
Storage Temperature	-40°C ... +85°C								
Humidity	95% relative, non-condensing								
Weight	≅ 2.4 oz (68 g)								
Thermostat									
	Anticipator Resistor: ≥ 3000 Ω								



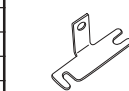
Accessories



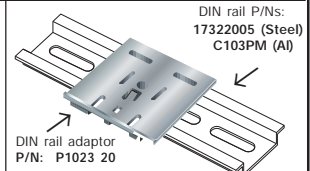
P/N: **P1015 64** (AWG 14/16)



P/N: **P1015 18**



P/N: **P1023 6**



DIN rail P/Ns:
17322005 (Steel)
C103PM (Al)
P/N: **P1023 20**

See accessory pages at the end of this section.