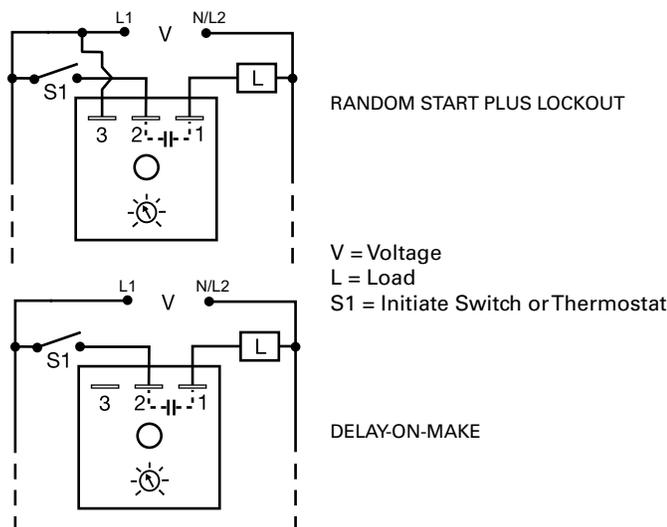


T2D120A15M

Lockout



Wiring Diagram



Description

The T2D Series provides protection against short cycling of compressors and other motors. At the end of each operation, a lockout delay prevents restarting the compressor or motor until the delay is completed. 24VAC models can be used with thermostats that include a cooling anticipator resistor. It can be connected in series with the load for delay-on-make operation.

Operation (Lockout with Random Start)

Connection #1: Upon application of input voltage, a random start time delay begins. At the end of this time delay, the output is energized.

Lockout Delay: Input voltage must be applied prior to and during timing. When the thermostat or initiate switch opens, the output de-energizes and the lockout time delay begins. At the end of the lockout delay, the output is energized allowing the load to immediately energize when the initiate switch or thermostat closes.

Connection #2: Upon application of input voltage and closure of initiate switch, the time delay begins. At the end of the time delay, the output is energized and remains energized until power is removed.

Reset: Removing power resets the output and the time delay.

Features & Benefits

FEATURES	BENEFITS
Lockout delay	Prevents rapid cycling of compressor
Random start delay	Prevents low voltage starting
Analog circuitry	Repeat Accuracy +/- 1%
Compact design	Allows flexibility for OEM applications
1A steady, 10A inrush output	Provides 100 million operations in typical conditions.
Totally solid state and fully encapsulated	No moving parts to arc and wear out over time and encapsulated to protect against shock, vibration and humidity

Accessories



P1023-6 Mounting bracket
The 90° orientation of mounting slots makes installation/removal of modules quick and easy.



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.



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.



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.

T2D120A15M

Specifications

Input

Voltage 120/230VAC in 2 ranges

Tolerance ±20%

AC Line Frequency 50/60 Hz

Output

Minimum Load Current 24VAC - 100mA; 120/230VAC - 40mA

Rating 1A steady state, 10A inrush at 60°C

Voltage Drop ≈ 2.5V @ 1A

Time Delay

Initiate Time After timing - 16ms

Type Analog circuitry

Lockout & Random Start Delays

1s - 100m in 4 adjustable ranges or fixed
Note: The lockout & random start delays are the same length.

Tolerance Adjustable: ±30%; factory fixed: ±30%

Repeat Accuracy ±1% or 20ms, whichever is greater

Reset Time After timing - ≤ 16ms;

During timing - ≤ 200ms

Protection

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 -20° to 60°C / -40° to 85°C

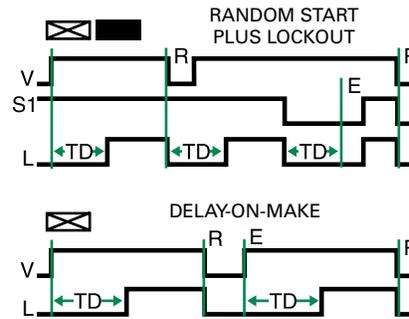
Humidity 95% relative, non-condensing

Weight ≈ 2.4 oz (68 g)

Cooling Anticipator (24VAC Units Only)

Minimum Cooling Anticipator ≥ 3,000 Ω

Function Diagram



V = Voltage
S1 = Initiate Switch
L = Load (CR)
E = Ready
TD = Time Delay
R = Reset