

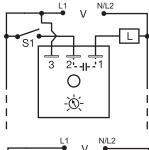
T2D120A15M

Lockout





Wiring Diagram



RANDOM START PLUS LOCKOUT

V = Voltage L = Load S1 = Initiate Switch orThermostat

DELAY-ON-MAKE

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.

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 flexiblility 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

Output

Minimum Load Current 40mA

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

Voltage Drop $\cong 2.5 \lor @ 1 A$

Time Delay

Initiate Time After timing - 16ms
Type Analog circuitry

Lockout & Random

Start Delays 5m fixed

Note: The lockout & random start delays are the

same length.

Tolerance +/-30%

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

Reset Time After timing $- \le 16ms$; During timing $- \le 200ms$

Protection

Dielectric Breakdown ≥ 2000V RMS terminals to mounting surface

Insulation Resistance $\geq 100 \text{ M}\Omega$

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

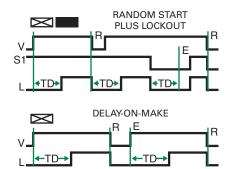
Temperature -20° to 60°C / -40° to 85°C
Humidity 95% relative, non-condensing

Weight $\approx 2.4 \text{ oz } (68 \text{ g})$

Cooling Anticipator (24VAC Units Only)

Minimum Cooling Anticipator $\geq 3,000 \Omega$

Function Diagram



V = Voltage S1 = Initiate Switch

L = Load (CR) E = Ready

TD = Time Delay

R = Reset

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