Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

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T2D120A15M

Lockout

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)

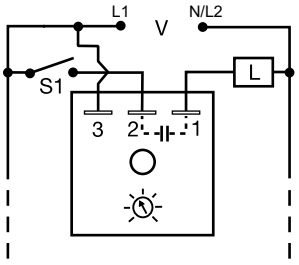
Connection #1: Upon application of input voltage, a random start time delay begins. At the end of this time delay, the output is energized.

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.

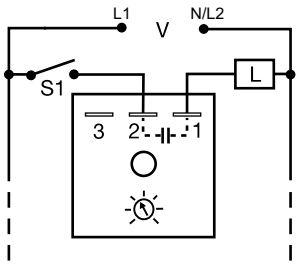
Reset: Removing power resets the output and the time delay.

Wiring Diagram



RANDOM START PLUS LOCKOUT

V = Voltage
L = Load
S1 = Initiate Switch or Thermostat



DELAY-ON-MAKE

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.

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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

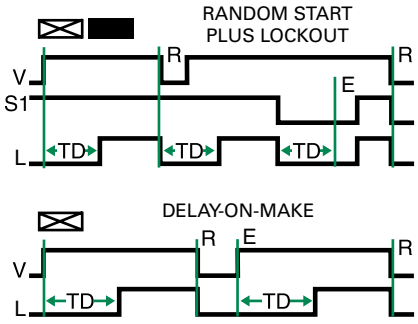
Environmental

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