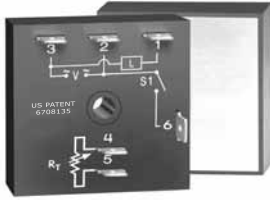


Delay On Break (Release)

THDB Digi-Power Power Timing Module

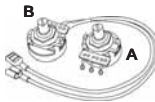


5

- High Load Currents up to 20 A, 200 A Inrush
- Fixed or Adjustable Delays From 0.1 s ... 1000 m
- +/-0.5% Repeat Accuracy
- +/-1% Factory Calibration
- 24, 120, or 230 V AC
- Metallized Mounting Surface for Efficient Heat Transfer
- Totally Solid State and Encapsulated

Approvals:

Accessories



External adjust potentiometer
P/Ns:
P1004-95 (fig A)
P1004-95-X (fig B)



Female quick connect
P/Ns:
P1015-64 (AWG 14/16)
P1015-13 (AWG 10/12)



Quick connect to screw adaptor
P/N: **P1015-18**



Versa-knob
P/N: **P0700-7**

See accessory pages for specifications.

Description

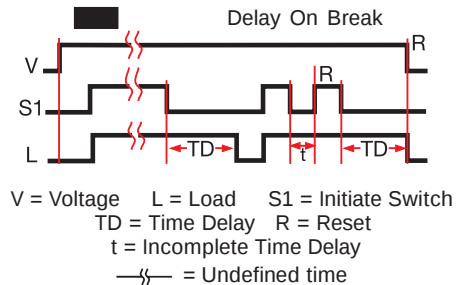
The THD Series combines accurate timing circuitry with high power solid state switching. It can switch motors, lamps, and heaters directly without a contactor. You can reduce labor, component cost, and increase reliability with these small, easy-to-use, Digi-Power timers.

Operation

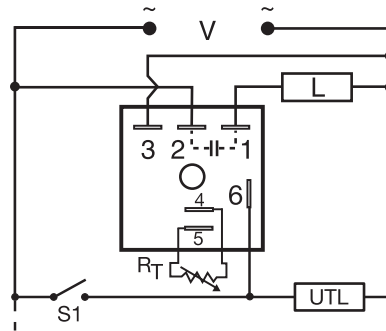
Input voltage must be applied before and during timing. Upon closure of the initiate switch, the output energizes. The time delay begins when the initiate switch is opened. The output remains energized during timing. At the end of the time delay, the output de-energizes. The output energizes if the initiate switch is closed when input voltage is applied.

Reset: Reclosing the initiate switch during timing resets the time delay. Loss of input voltage resets the time delay and output.

Function



Connection



R_T is used when external adjustment is ordered.
Dashed lines are internal connections.

UTL = Optional Untimed Load L = Timed Load S1 = Initiate Switch

Ordering Table

THDB Series

X	Input
2	24 V AC
4	120 V AC
6	230 V AC

X	Adjustment
1	Fixed
2	External Adjust
3	Onboard Adjust

X	Time Delay *
0	0.1 ... 10 s
1	1.0 ... 100 s
2	10 ... 1000 s
3	0.1 ... 10 m
4	1 ... 100 m
5	10 ... 1000 m

X	Output Rating
A	6 A
B	10 A
C	20 A

Example P/N: **THDB420C** Fixed – **THDB410.1SA**

*If Fixed Delay is selected, insert delay [0.1...1000] followed by (S) secs. or (M) mins.

Delay On Break (Release)

THDB Digi-Power

Power Timing Module

Technical Data

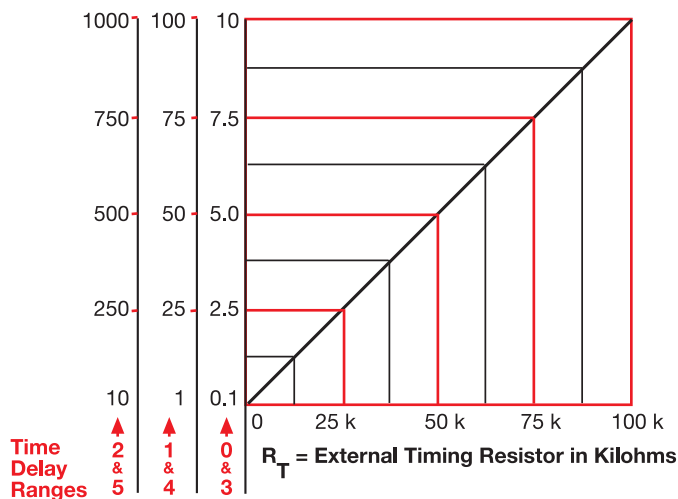
Time Delay		
Range	0.1 s ... 1000 ms in 6 adjustable ranges or fixed	
Repeat Accuracy	±0.5% or 20 ms, whichever is greater	
Tolerance (Factory Calibration)	≤ ±1%	
Reset Time	≤ 150 ms	
Initiate Time	≤ 20 ms	
Time Delay vs. Temperature & Voltage	≤ ±2%	
Input		
Voltage	24, 120, or 230 V AC	
Tolerance	±20%	
Line Frequency	50 ... 60 Hz	
Power Consumption	≤ 2 VA	
Output		
Type	Solid state	
Form	Normally Open, closed before & during timing	
Maximum Load Current	Output	Steady State Inrush**
	A	6 A 60 A
	B	10 A 100 A
	C	20 A 200 A
Voltage Drop	≅ 2.5 V at rated current	
Off State Leakage Current	≅ 5 mA at 230 V AC	
Minimum Load Current	100 mA	
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	
Termination	0.25 in. (6.35 mm) male quick connect terminals	
Environmental		
Operating/Storage Temperature	-40°C ... +60°C / -40°C ... +85°C	
Humidity	95% relative, non-condensing	
Weight	≅ 3.9 oz (111 g)	

**Must be bolted to a metal surface using the included heat sink compound. The maximum surface temperature is 90°C. Inrush: Non-repetitive for 16 ms.

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External Resistance vs Time Delay

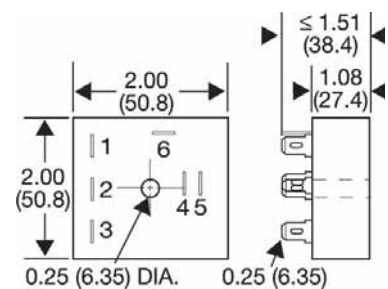
In Secs. or Mins.



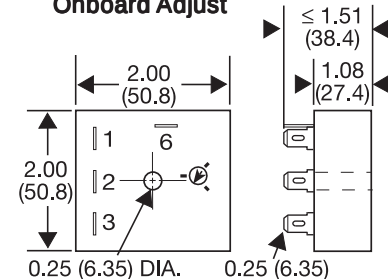
This chart applies to externally adjustable part numbers.
 The time delay is adjustable over the time delay range selected by varying the resistance across the R_T terminals; as the resistance increases the time delay increases.
 When selecting an external R_T , add the tolerances of the timer and the R_T for the full time range adjustment.
Examples: 1 to 50 S adjustable time delay, select time delay range 1 and a 50 K ohm R_T . For 1 to 100 S use a 100 K ohm R_T .

Mechanical View

Fixed & External Adjust



Onboard Adjust



Inches (Millimeters)