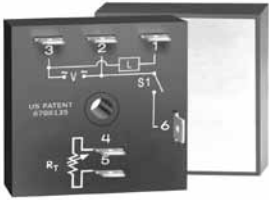


Delay On Break (Release) THDB Digi-Power Power Timing Module

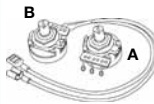


5

- 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

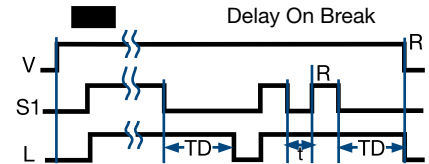
The THD Series combines accurate timing circuitry with high power solid state switching. It can switch motors, lamps, and heaters directly without a contactor. You can reduce labor, component cost, and increase reliability with these small, easy-to-use, Digi-Power timers.

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.

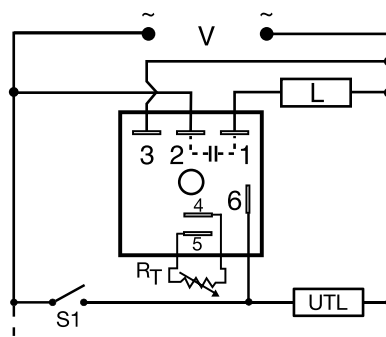
Reset: Reclosing the initiate switch during timing resets the time delay. Loss of input voltage resets the time delay and output.

Function



V = Voltage L = Load S1 = Initiate Switch
TD = Time Delay R = Reset
t = Incomplete Time Delay
— = Undefined time

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

Available Models-

THDB2145SA	THDB230C	THDB4110MC
THDB415MB	THDB421A	THDB421B
THDB423B	THDB430C	THDB433C
THDB434C		

Don't see what you need? Call us for a minimum quantity and price quote!

Ordering Table

THDB Series	X Input	X Adjustment	X Time Delay *	X Output Rating
	-2 - 24 V AC	-1 - Fixed	-0 - 0.1 ... 10 s	-A - 6 A
	-4 - 120 V AC	-2 - External Adjust	-1 - 1.0 ... 100 s	-B - 10 A
	-6 - 230 V AC	-3 - Onboard Adjust	-2 - 10 ... 1000 s	-C - 20 A
			-3 - 0.1 ... 10 m	
			-4 - 1 ... 100 m	
			-5 - 10 ... 1000 m	

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

Dedicated
timers

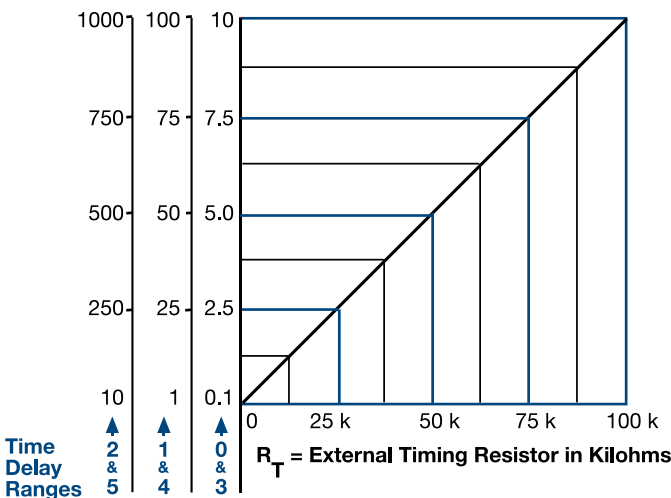
Technical Data

Time Delay	0.1 s ... 1000 ms in 6 adjustable ranges or fixed		
Range	+/-0.5% or 20 ms, whichever is greater		
Repeat Accuracy	≤ +/-1%		
Tolerance (Factory Calibration)	≤ 150 ms		
Reset Time	≤ 20 ms		
Initiate Time	≤ +/-2%		
Time Delay vs. Temperature & Voltage			
Input	24, 120, or 230 V AC		
Voltage	+/-20%		
Tolerance	50 ... 60 Hz		
Line Frequency	≤ 2 VA		
Power Consumption			
Output	Solid state		
Type	Normally Open, closed before & during timing		
Form	Output	Steady State	Inrush**
Maximum Load Current	A	6 A	60 A
	B	10 A	100 A
	C	20 A	200 A
	≅ 2.5 V at rated current		**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.
Voltage Drop	≅ 5 mA at 230 V AC		
Off State Leakage Current	100 mA		
Minimum Load Current			
Protection	Encapsulated		
Circuitry	≥ 2000 V RMS terminals to mounting surface		
Dielectric Breakdown	≥ 100 MΩ		
Insulation Resistance			
Mechanical	Surface mount with one #10 (M5 x 0.8) screw		
Mounting **	0.25 in. (6.35 mm) male quick connect terminals		
Termination			
Environmental	-40°C ... +60°C / -40°C ... +85°C		
Operating/Storage Temperature	95% relative, non-condensing		
Humidity	≅ 3.9 oz (111 g)		
Weight			

5

External Resistance vs Time Delay

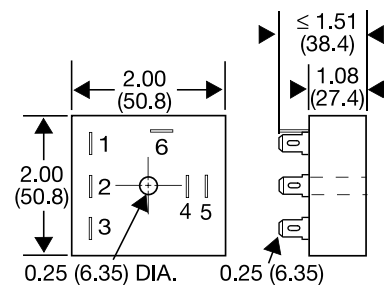
In Secs. or Mins.



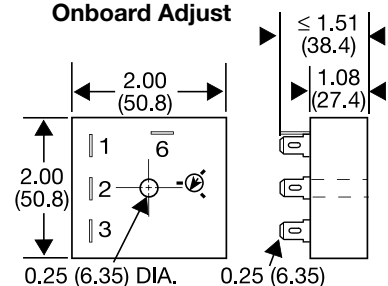
This chart applies to externally adjustable part numbers.
 The time delay is adjustable over the time delay range selected by varying the resistance across the R_T terminals; as the resistance increases the time delay increases.
 When selecting an external R_T , add the tolerances of the timer and the 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)