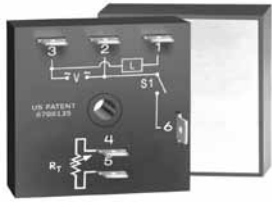


Single Shot (Pulse Former) THDS Digi-Power Power Timing Module



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

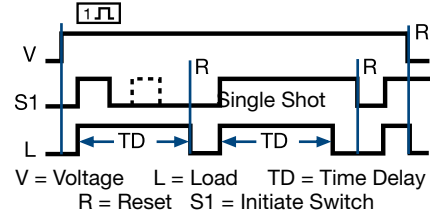
The THD Series combines accurate timing circuitry with high power solid state switching. It can switch motors, lamps, and heaters directly without a contactor. You can reduce labor, component cost, and increase reliability with these small, easy-to-use, Digi-Power timers.

Operation

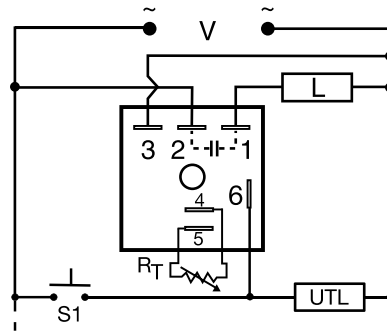
Input voltage must be applied before and during timing. Upon momentary or maintained closure of the initiate switch, the output energizes for a measured interval of time. At the end of the delay, the output de-energizes. Opening or reclosing the initiate switch during timing has no effect on the time delay. The output energizes if the initiate switch is closed when input voltage is applied.

Reset: Reset occurs when the time delay is complete and the initiate switch is opened. 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

Available Models-

THDS410.15SA	THDS410.1SA	THDS410.25SA
THDS414MC	THDS420B	THDS423B
THDS430C	THDS431C	THDS433C
THDS610.25SA	THDS611.5SA	

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

Ordering Table

THDS 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: **THDS420C** Fixed - **THDS410.1SA**

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

Single Shot (Pulse Former)

THDS Digi-Power

Power Timing Module

Dedicated
timers

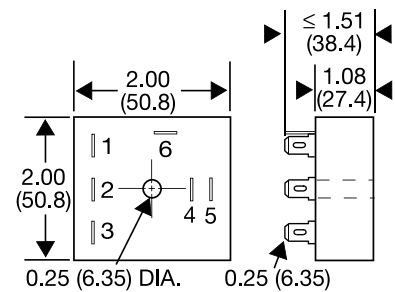
Technical Data

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 during timing												
Maximum Load Current	<table border="1"> <thead> <tr> <th>Output</th> <th>Steady State</th> <th>Inrush**</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>6 A</td> <td>60 A</td> </tr> <tr> <td>B</td> <td>10 A</td> <td>100 A</td> </tr> <tr> <td>C</td> <td>20 A</td> <td>200 A</td> </tr> </tbody> </table>	Output	Steady State	Inrush**	A	6 A	60 A	B	10 A	100 A	C	20 A	200 A
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)												

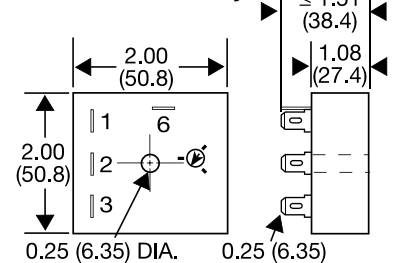
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Mechanical View

Fixed & External Adjust



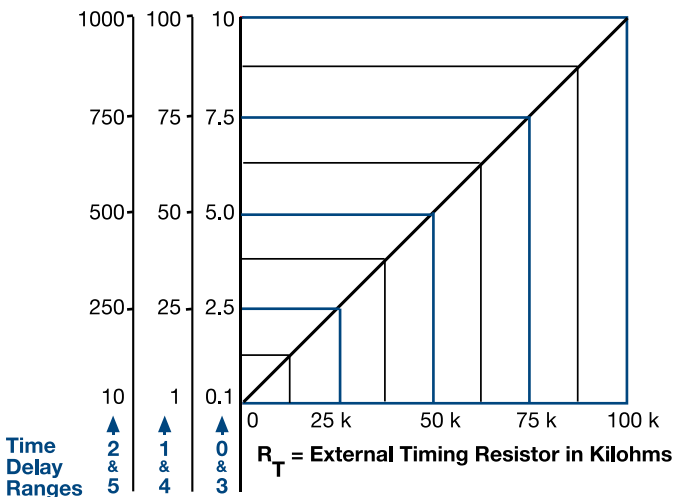
Onboard Adjust



Inches (Millimeters)

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 .

THDSGen 09.10