

Delay On Make - Normally Closed TSD4 Digi-Timer Timing Module

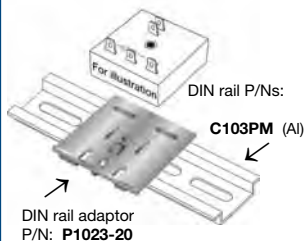
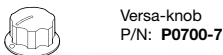
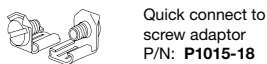
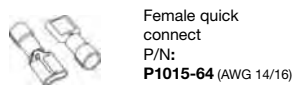
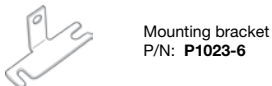
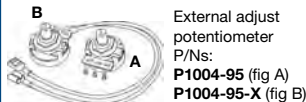


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- Fixed or Adjustable Delays From 0.1 s ... 100 h
- 24, 120, or 230 V AC
- +/-0.1% Repeat Accuracy
- +/-1% Factory Calibration
- 1A Solid State Output
- Encapsulated

Approvals:

Accessories



See accessory pages for specifications.

Description

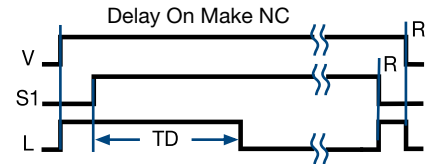
The TSD4 Digi-Timer is a delay on make timer with a normally closed solid state output. The load is energized prior to and during the delay period. The TSD Series is designed for more demanding commercial and industrial applications where small size, and accurate performance is required. The factory calibration for fixed time delays is within 1% of the target time delay. The repeat accuracy, under stable conditions, is 0.1% of the time delay. The TSD Series is rated to operate over an extended temperature range. Time delays of 0.1 seconds to 100 hours are available. The output is rated 1 A steady and 10 A inrush. The modules are totally solid state and encapsulated to protect the electronic circuitry.

Operation

Upon application of input voltage, the load energizes immediately. When the initiate switch is closed, the time delay begins. At the end of the time delay, the load de-energizes.

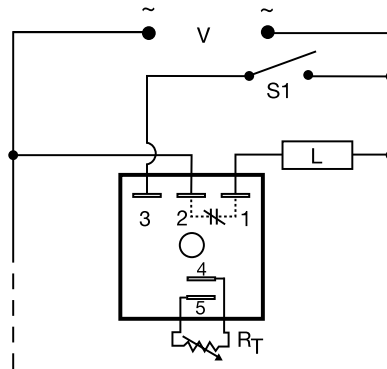
Reset: When the initiate switch is reopened, the load energizes again and the time delay is reset. Removing input voltage resets the time delay.

Function



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

Connection



R_T is used when external adjustment is ordered.
Dashed lines are internal connections.
S1 = Initiate Switch

Available Models-

TSD44115S

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

Ordering Table

TSD4 Series	X Input	X Adjustment	X Time Delay*
	-2 - 24 V AC	-1 - Fixed	-0 - 0.1 ... 10 s
	-4 - 120 V AC	-2 - External Adjust	-1 - 1 ... 100 s
	-6 - 230 V AC	-3 - Onboard Adjust	-2 - 10 ... 1000 s
			-3 - 0.1 ... 10 m
			-4 - 1 ... 100 m
			-5 - 10 ... 1000 m
			-6 - 1 ... 100 h

Example P/N: **TSD4421** Fixed - **TSD4410.5S**

*If Fixed Delay is selected, insert delay [0.1 ... 1000] followed by (S) secs. or (M) mins., [1 ... 100] (H) hrs

Delay On Make - Normally Closed

TSD4 Digi-Timer

Timing Module

Dedicated
timers

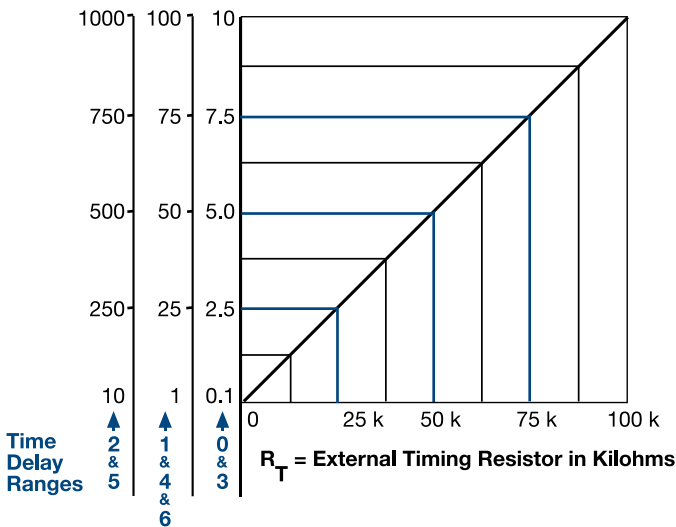
Technical Data

Time Delay	
Range	0.1 s ... 100 h in 7 adjustable ranges or fixed
Repeat Accuracy	+/-0.1% or 20 ms, whichever is greater
Tolerance (Factory Calibration)	≤ +/-1%
Reset Time	≤ 150 ms
Time Delay vs. Temperature & Voltage	≤ +/-1%
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 Closed, closed before & during timing
Maximum Load Current	1 A steady state, 10 A inrush at 60°C
OFF State Leakage Current	≅ 5 mA at 230 V AC
Voltage Drop	≅ 2.5 V at 1 A
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
Package	2 x 2 x 1.21 in. (50.8 x 50.8 x 30.7 mm)
Termination	0.25 in. (6.35 mm) male quick connect terminals
Environmental	
Operating Temperature	-40°C ... +75°C
Storage Temperature	-40°C ... +85°C
Humidity	95% relative, non-condensing
Weight	≅ 2.4 oz (68 g)

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External Resistance vs Time Delay

In Secs., Mins., or Hours



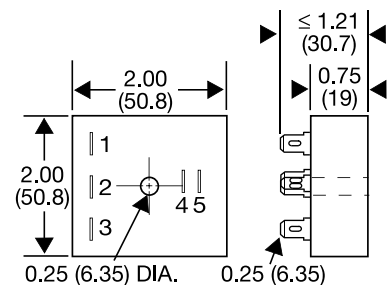
This chart applies to externally adjustable part numbers. The time delay is adjustable over the time delay range selected by varying the resistance across the R_T terminals; as the resistance increases the time delay increases.

When selecting an external R_T , add the tolerances of the timer and the R_T for the full time range adjustment.

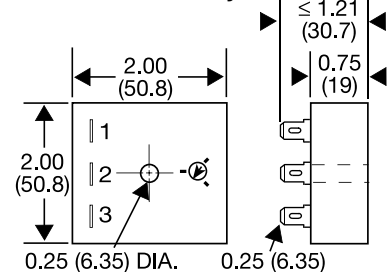
Examples: 1 to 50 S adjustable time delay, select time delay range 1 and a 50 K ohm R_T . For 1 to 100 S use a 100 K ohm R_T .

Mechanical View

Fixed & External Adjust



Onboard Adjust



Inches (Millimeters)