## TDI / TDIH / TDIL Series

## 



## **Wiring Diagram**



Relay contacts are isolated.

# **Ordering Information**

MODEL	INPUT VOLTAGE	TIME DELAY	LED
TDI120AL	120 V ac	1–1023 s in 1 s increments	Yes
TDI12D	12 V dc	1–1023 s in 1 s increments	No
TDIH24AL	24 V ac	10–10,230 s in 10 s increments	Yes
TDIL120AL	120 V ac	0.1–102.3 s in 0.1 s increments	Yes
TDIL24DL	24 V dc/28 V dc	0.1–102.3 s in 0.1 s increments	Yes

## Description

The TDI series is an interval timer that combines accurate digital circuitry with isolated, 8 A rated, DPDT relay contacts in an 8-pin plug-in package. The TDI series features DIP switch selectable time delays ranging from 0.1 to 10,230 seconds in three ranges. The TDI series is the product of choice for custom control panel and OEM designers.

### Operation (Interval)

Upon application of input voltage, the time delay begins. The output relay is energized during the time delay. At the end of the time delay, the output de-energizes and remains de-energized until input voltage is removed.

**Reset:** Removing input voltage resets the time delay and the output.

## **Features & Benefits**

FEATURES	BENEFITS	
Digital circuitry	Repeat Accuracy + / - 0.1 %, Setting accuracy + / - 2 %	
Isolated, 8 A, DPDT output contacts	Allows control of loads with independent voltage sources	
DIP switch adjustment	Provides first time setting accuracy	
Industry standard octal plug connection	Eliminates need for special connectors	
LED indication (select models)	Provides visual indication of timing and output status	

## Accessories



#### OT08PC 8-pin Octal Socket for UL listing\* 8-pin 35 mm DIN-rail or surface mount. Rated at 10 A @ 600 V ac. Surface mounted with two

#6 screws or snaps onto a 35 mm DIN rail.



C103PM (AL) DIN Rail

35 mm aluminum DIN rail available in a 36 in. (91.4 cm) length.



# Time Delay Relays

## **Specifications**

#### **Time Delay**

Type Range

**Repeat Accuracy Setting Accuracy Reset Time** Time Delay vs Temp. & Voltage Indicator Input Voltage Tolerance 12 V dc & 24 V dc/Ac 120 V ac **AC Line Frequency Power Consumption** Output Type Form Rating

Life Protection Polarity Isolation Voltage Mechanical Mounting Dimensions

## Termination

Environmental Operating/Storage Temperature Weight Safety Marks UL (socket required)\* Digital integrated circuitry 0.1-102.3 s in 0.1 s increments 1-1023 s in 1 s increments 10-10,230 s in 10 s increments ±0.1 % ±2 % ≤ 150 ms ±5 % LED glows during timing; relay is energized 12, 24 V dc; 24, 120 V ac -15 %-+20 % -20 %-+10 % 50/60 Hz  $\leq 3.25W$ Electromechanical relay DPDT 8 A resistive @ 120/240 V ac; 1/3 hp @ 120/240 V ac Mechanical - 1 x107; Electrical - 1 x 106 Dc units are reverse polarity protected

Plug-in socket **H** 44.45 mm (1.75"); **W** 60.33 mm (2.38"); **D** (with socket) 104.78 mm (4.13")

-20 °C to 65 °C / -30 °C to 85 °C ≅ 4 oz (113 g)

 $\geq$  1500 V rms input to output

UL 508 (E57310)

Octal 8-pin plug-in

\*UL Listed when used with Part Number OT08-PC or RB08-PC manufactured by Custom Connector Corp.

**Note:** Manufacturer's recommended screw terminal torque for the OT Series sockets is 12 in-lbs.

## **Digi-Set Binary Switch Operation**



## **Function Diagram**



V = Voltage NO = Normally Open Contact NC = Normally Closed Contact TD = Time Delay R = Reset  $-\frac{1}{\sqrt{2}}$  = Undefined Time

Disclaimer Notice – Information furnished is believed to be accurate and reliable. However, users should independently evaluate the suitability of and test each product selected for their own applications. Littelfuse products are not designed for, and may not be used in, all applications. Read complete Disclaimer Notice at www.littelfuse.com/product-disclaimer.

