

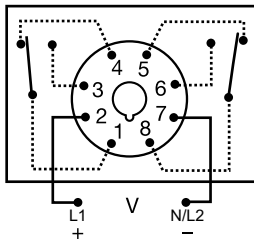
Time Delay Relays

INTERVAL

TDI / TDIH / TDIL Series



Wiring Diagram



Relay contacts are isolated.

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

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

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.

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Specifications

Time Delay

Type	Digital integrated circuitry
Range	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
Repeat Accuracy	±0.1 %
Setting Accuracy	±2 %
Reset Time	≤ 150 ms
Time Delay vs Temp. & Voltage	±5 %
Indicator	LED glows during timing; relay is energized

Input

Voltage	12, 24 V dc; 24, 120 V ac
Tolerance	
12 V dc & 24 V dc/Ac	-15 %–+20 %
120 V ac	-20 %–+10 %
AC Line Frequency	50/60 Hz
Power Consumption	≤ 3.25W

Output

Type	Electromechanical relay
Form	DPDT
Rating	8 A resistive @ 120/240 V ac; 1/3 hp @ 120/240 V ac
Life	Mechanical - 1 x 10 ⁷ ; Electrical - 1 x 10 ⁶

Protection

Polarity	Dc units are reverse polarity protected
Isolation Voltage	≥ 1500 V rms input to output

Mechanical

Mounting	Plug-in socket
Dimensions	H 44.45 mm (1.75"); W 60.33 mm (2.38"); D (with socket) 104.78 mm (4.13") Octal 8-pin plug-in

Termination

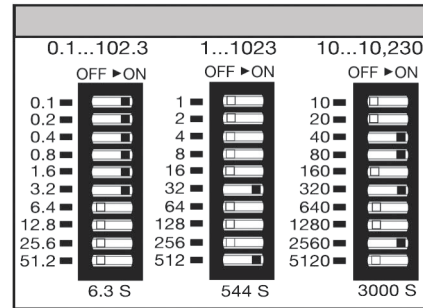
Environmental

Operating/Storage	
Temperature	-20 °C to 65 °C / -30 °C to 85 °C
Weight	≈ 4 oz (113 g)
Safety Marks	
UL (socket required)*	UL 508 (E57310)

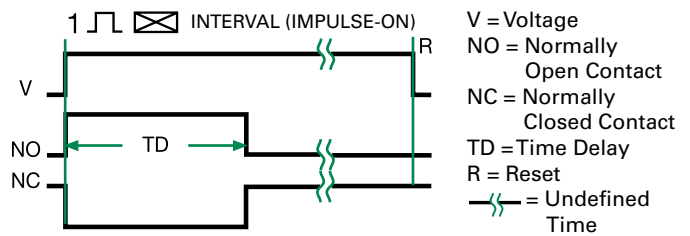
*UL Listed when used with Part Number OT08-PC or RB08-PC manufactured by Custom Connector Corp.

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

Digi-Set Binary Switch Operation



Function Diagram



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