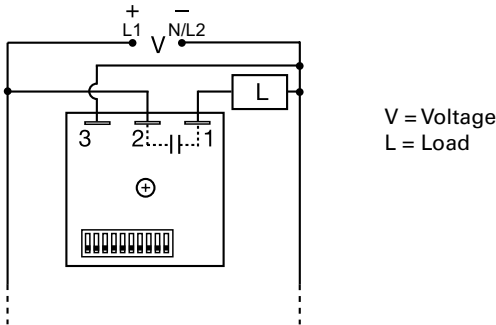


TDUI / TDUIH / TDUIL SERIES



Wiring Diagram



Description

The TDUI Series combines digital timing circuitry with universal voltage operation. Voltages of 24 to 240VAC and 12 to 24VDC are available in three ranges. The TDUI Series offers DIP switch selectable time delays ranging from 0.1 seconds to 102.3 minutes in three ranges. Its 1A rated output, ability to operate on multiple voltages, and wide range of switch selectable time delays make the TDUI Series an excellent choice for process control systems and OEM equipment.

Operation (Interval)

Upon application of input voltage, the time delay begins. The output energizes 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
Microcontroller based	Repeat Accuracy + / - 0.5%, Setting accuracy + / - 2%
Compact design	Allows flexibility for OEM applications
1A steady, 10A inrush solid-state output	Provides 100 million operations in typical conditions
Totally solid state and encapsulated	No moving parts to arc and wear out over time and encapsulated to protect against shock, vibration, and humidity
Wide voltage ranges	Flexibility to handle multiple voltages found in control systems and OEM applications
DIP switch Adjustment	Provides first time setting accuracy

Ordering Information

MODEL	INPUT VOLTAGE	TIME DELAY
TDUI3000A	24 to 120VAC	1 - 1023s
TDUIH3002A	12 to 24VDC	0.1 - 102.3m
TDUIL3001A	100 to 240VAC	0.1 - 102.3s
TDUIL3002A	12 to 24VDC	0.1 - 102.3s

If you don't find the part you need, call us for a custom product 800-843-8848

Accessories



P1015-13 (AWG 10/12), **P1015-64** (AWG 14/16), **P1015-14** (AWG 18/22) **Female Quick Connect**
These 0.25 in. (6.35 mm) female terminals are constructed with an insulator barrel to provide strain relief.



P1015-18 Quick Connect to Screw Adapter
Screw adapter terminal designed for use with all modules with 0.25 in. (6.35 mm) male quick connect terminals.



C103PM (AL) DIN Rail
35 mm aluminum DIN rail available in a 36 in. (91.4 cm) length.



P1023-20 DIN Rail Adapter
Allows module to be mounted on a 35 mm DIN type rail with two #10 screws.

TDUI / TDUIH / TDUIL SERIES

Specifications

Time Delay

Range*

0.1 - 102.3s in 0.1s increments

1 - 1023s in 1s increments

0.1 - 102.3m in 0.1m increments

Repeat Accuracy

$\pm 0.5\%$ or 20ms, whichever is greater

Setting Accuracy

$\leq \pm 2\%$ or 20ms, whichever is greater

Reset Time

$\leq 150\text{ms}$

Time Delay vs Temp.

& Voltage

$\leq \pm 5\%$

Input

Voltage

24 to 240VAC, 12 to 24VDC $\pm 20\%$

AC Line Frequency

50/60 Hz

Power Consumption

AC $\leq 2\text{VA}$; DC $\leq 1\text{W}$

DC Ripple

$\leq 10\%$

Output

Type

Solid state

Form

NO, closed during timing

Rating

1A steady state, 10A inrush at 60°C

Voltage Drop

AC $\approx 2.5\text{V}$ @ 1A; DC $\approx 1\text{V}$ @ 1A

OFF State Leakage Current

AC $\approx 5\text{mA}$ @ 230VAC; DC $\approx 1\text{mA}$

Protection

Circuitry

Encapsulated

Dielectric Breakdown

$\geq 2000\text{V}$ RMS terminals to mounting surface

Insulation Resistance

$\geq 100\text{ M}\Omega$

Polarity

DC units are reverse polarity protected

Mechanical

Mounting

Surface mount with one #10 (M5 x 0.8) screw

Dimensions

H 50.8 mm (2"); **W** 50.8 mm (2");

D 30.7 mm (1.21")

Termination

0.25 in. (6.35 mm) male quick connect terminals

Environmental

Operating/Storage

Temperature

-40° to 60°C / -40° to 85°C

Humidity

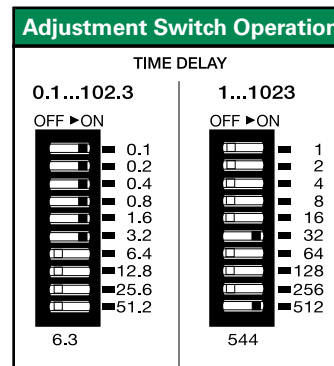
95% relative, non-condensing

Weight

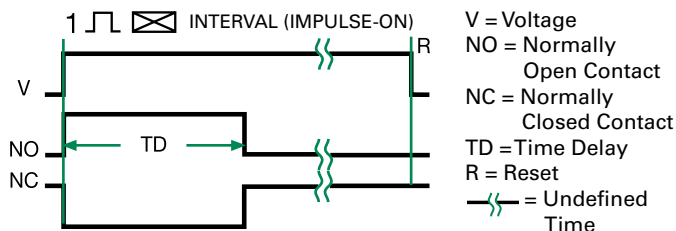
$\approx 2.4\text{ oz}$ (68 g)

*For CE approved applications, power must be removed from the unit when a switch position is changed.

Switch Operation



Function Diagram



Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Littelfuse:

[TDUI3000A](#) [TDUIL3001A](#) [TDUIH3002A](#) [TDUIL3002A](#)