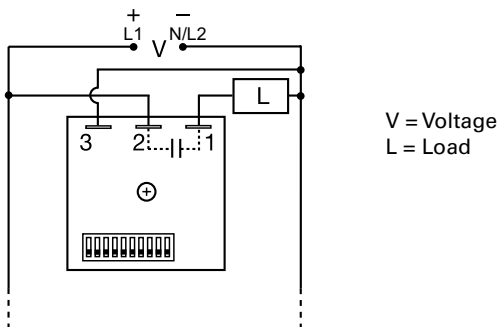


# TDUI / TDUIH / TDUIL SERIES



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

## 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.

## 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

## TDUI / TDUIH / TDUIL SERIES

### Specifications

#### Time Delay

<b>Range*</b>	0.1 - 102.3s in 0.1s increments 1 - 1023s in 1s increments 0.1 - 102.3m in 0.1m increments
<b>Repeat Accuracy</b>	±0.5% or 20ms, whichever is greater
<b>Setting Accuracy</b>	≤ ±2% or 20ms, whichever is greater
<b>Reset Time</b>	≤ 150ms

#### Time Delay vs Temp. & Voltage

≤ ±5%

#### Input

<b>Voltage</b>	24 to 240VAC, 12 to 24VDC ±20%
<b>AC Line Frequency</b>	50/60 Hz
<b>Power Consumption</b>	AC ≤ 2VA; DC ≤ 1W
<b>DC Ripple</b>	≤ 10%

#### Output

<b>Type</b>	Solid state
<b>Form</b>	NO, closed during timing
<b>Rating</b>	1A steady state, 10A inrush at 60°C
<b>Voltage Drop</b>	AC ≅ 2.5V @ 1A; DC ≅ 1V @ 1A
<b>OFF State Leakage Current</b>	AC ≅ 5mA @ 230VAC; DC ≅ 1mA

#### Protection

<b>Circuitry</b>	Encapsulated
<b>Dielectric Breakdown</b>	≥ 2000V RMS terminals to mounting surface
<b>Insulation Resistance</b>	≥ 100 MΩ
<b>Polarity</b>	DC units are reverse polarity protected

#### Mechanical

<b>Mounting</b>	Surface mount with one #10 (M5 x 0.8) screw
<b>Dimensions</b>	<b>H</b> 50.8 mm (2"); <b>W</b> 50.8 mm (2"); <b>D</b> 30.7 mm (1.21")

#### Termination

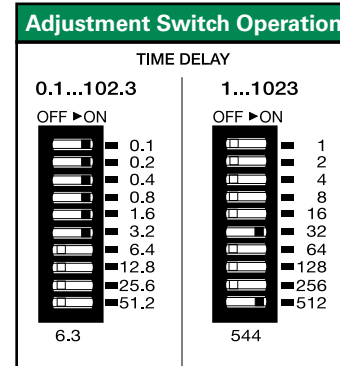
0.25 in. (6.35 mm) male quick connect terminals

#### Environmental

<b>Operating/Storage Temperature</b>	-40° to 60°C / -40° to 85°C
<b>Humidity</b>	95% relative, non-condensing
<b>Weight</b>	≅ 2.4 oz (68 g)

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

### Switch Operation



### Function Diagram

