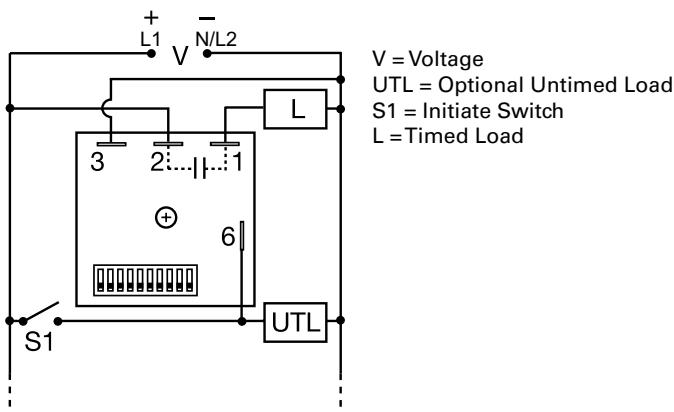


# TDUS SERIES

## Single Shot Timer



## Wiring Diagram



## Ordering Information

MODEL	INPUT VOLTAGE	TIME RANGE
TDUS3000A	24 to 120VAC	1 - 1023s
TDUS3001A	100 to 240VAC	1 - 1023s
TDUS3002A	12 to 24VDC	1 - 1023s
TDUSH3001A	100 to 240VAC	0.1 - 102.3m
TDUSL3000A	24 to 120VAC	0.1 - 102.3s

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

## Description

The TDUS Series combines digital timing circuitry with universal voltage operation. Voltages of 24 to 240VAC and 12 to 24VDC are available in three ranges. The TDUS 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 TDUS Series an excellent choice for process control systems and OEM equipment.

### Operation (Single Shot)

Input voltage must be applied before and during timing. Upon momentary or maintained closure of the initiate switch (leading edge triggered), the output energizes for a measured interval of time. At the end of the delay, the output de-energizes. Opening or reclosing the initiate switch during timing has no affect on the time delay. The output will energize if the initiate switch is closed when input voltage is applied.

**Reset:** Reset occurs when the time delay is complete and the initiate switch is opened. Loss of input voltage resets the time delay and output.

## Features & Benefits

FEATURES	BENEFITS
<b>Microcontroller based</b>	Repeat Accuracy +/- 0.1%
<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

## Accessories



### P0700-7 Versa-Knob

Designed for 0.25 in (6.35 mm) shaft of Versa-Pot. Semi-gloss industrial black finish.



### P1015-64 (AWG 14/16) 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.

# TDUS 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

±0.5% or 20 ms, whichever is greater

#### Setting Accuracy

≤±2% or 20 ms, whichever is greater

#### Reset Time

≤ 150ms

#### Initiate Time

≤ 20ms

#### Time Delay vs. Temperature & Voltage

≤ ±5%

#### Input

#### Voltage/Tolerance

24 to 240VAC, 12 to 24VDC /±20%

#### AC Line Frequency/DC Ripple

50/60 Hz /≤ 10%

#### Power Consumption

AC ≤ 2VA; DC ≤ 1W

#### Output

#### Type

Solid state

#### Form

NO, closed during timing

#### Rating

1A steady state, 10A inrush at 60°C

#### Voltage Drop

AC ≈ 2.5V @ 1A; DC ≈ 1V @ 1A

#### Off State Leakage Current

AC ≈ 5mA @ 230VAC; DC ≈ 1 mA

#### Protection

#### Circuitry

Encapsulated

#### Dielectric Breakdown

≥ 2000V RMS terminals to mounting surface

#### Insulation Resistance

≥ 100 MΩ

#### 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

-40° to 60°C / -40° to 85°C

#### Temperature

95% relative, non-condensing

#### Humidity

≤ 2.4 oz (68 g)

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

## Adjustment Switch Operation

### Adjustment Switch Operation

#### TIME DELAY

#### 0.1...102.3

#### OFF ► ON

0.1
0.2
0.4
0.8
1.6
3.2
6.4
12.8
25.6
51.2

6.3

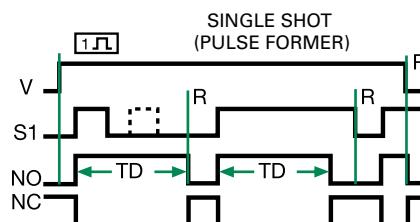
#### 1...1023

#### OFF ► ON

1
2
4
8
16
32
64
128
256
512

544

## Function Diagram



V = Voltage  
 S1 = Initiate Switch  
 NO = Normally Open Contact  
 NC = Normally Closed Contact  
 TD = Time Delay  
 R = Reset