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Single ShotTimer



## Wiring Diagram


$\mathrm{V}=$ Voltage
UTL = Optional Untimed Load
S1 = Initiate Switch
L = Timed Load

Ordering Information

| MODEL | INPUT VOLTAGE | TIME RANGE |
| :--- | :--- | :--- |
| TDUS3000A | 24 to 120VAC | $1-1023 \mathrm{~s}$ |
| TDUS3001A | 100 to 240VAC | $1-1023 \mathrm{~s}$ |
| TDUS3002A | 12 to 24VDC | $1-1023 \mathrm{~s}$ |
| TDUSH3001A | 100 to 240VAC | $0.1-102.3 \mathrm{~m}$ |
| TDUSL3000A | 24 to 120VAC | $0.1-102.3 \mathrm{~s}$ |

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 240 VAC and 12 to 24 VDC 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 |
| :--- | :--- |
| Microcontroller based | Repeat Accuracy $+/-0.1 \%$ |
| Compact design | Allows flexiblility for OEM applications |
| 1A steady, 10A inrush <br> solid-state output | Provides 100 million operations in typical conditions. |
| Totally solid state <br> and encapsulated | No moving parts to arc and wear out over time and <br> encapsulated to protect against shock, vibration, <br> 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 . $(6.35 \mathrm{~mm}$ ) male quick connect terminals.

C103PM (AL) DIN Rail
35 mm aluminum DIN rail available in a 36 in. $(91.4 \mathrm{~cm})$ length.

## P1023-20 DIN Rail Adapter

Allows module to be mounted on a 35 mm DIN type rail with two \#10 screws.

Specifications

| Time Delay |  |
| :---: | :---: |
| Range* | 0.1-102.3s in 0.1s increments |
|  | 1-1023s in 1 s increments |
|  | $0.1-102.3 \mathrm{~m}$ in 0.1 m increments |
| Repeat Accuracy | $\pm 0.5 \%$ or 20 ms , whichever is greater |
| Setting Accuracy | $\leq \pm 2 \%$ or 20 ms , whichever is greater |
| Reset Time | $\leq 150 \mathrm{~ms}$ |
| Initiate Time | $\leq 20 \mathrm{~ms}$ |
| Time Delay vs. Temperature |  |
| \& Voltage | $\leq \pm 5 \%$ |
| Input |  |
| Voltage/Tolerance | 24 to 240VAC, 12 to 24VDC / $\pm 20 \%$ |
| AC Line Frequency/DC Ripple | $50 / 60 \mathrm{~Hz}$ / $\leq 10 \%$ |
| Power Consumption | $A C \leq 2 V A ; D C \leq 1 W$ |
| Output |  |
| Type | Solid state |
| Form | NO, closed during timing |
| Rating | 1A steady state, 10 A inrush at $60^{\circ} \mathrm{C}$ |
| Voltage Drop | $A C \cong 2.5 \mathrm{~V} @ 1 \mathrm{~A} ; \mathrm{DC} \cong 1 \mathrm{~V} @ 1 \mathrm{~A}$ |
| Off State Leakage Current | AC $\cong 5 \mathrm{~mA} @ 230 \mathrm{VAC} ; \mathrm{DC} \cong 1 \mathrm{~mA}$ |
| Protection |  |
| Circuitry | Encapsulated |
| Dielectric Breakdown | $\geq 2000 \mathrm{~V}$ RMS terminals to mounting surface |
| Insulation Resistance | $\geq 100 \mathrm{M} \Omega$ |
| Polarity | DC units are reverse polarity protected |
| Mechanical |  |
| Mounting | Surface mount with one \#10 (M5 x 0.8) screw |
| Dimensions | H $50.8 \mathrm{~mm}\left(2^{\prime \prime}\right)$; W $50.8 \mathrm{~mm}\left(2^{\prime \prime}\right)$; |
|  | D 30.7 mm (1.21") |
| Termination | 0.25 in . ( 6.35 mm ) male quick connect terminals |
| Environmental |  |
| Operating/Storage |  |
| Temperature | $-40^{\circ}$ to $60^{\circ} \mathrm{C} /-40^{\circ}$ to $85^{\circ} \mathrm{C}$ |
| Humidity | 95\% relative, non-condensing |
| Weight | $\cong 2.40 \mathrm{z}(68 \mathrm{~g})$ |

[^0]
## Adjustment Switch Operation



Function Diagram



[^0]:    *For CE approved applications, power must be removed from the unit when a switch position is changed.

