

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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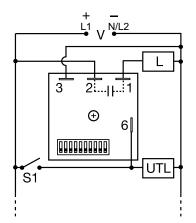
TDUS SERIES

Single ShotTimer





Wiring Diagram



V = Voltage UTL = Optional Untimed Load S1 = Initiate Switch L = Timed Load

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	
Microcontroller based	Repeat Accuracy + / - 0.1%	
Compact design	Allows flexiblility 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	

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 $\pm 0.5\%$ or 20 ms, whichever is greater **Setting Accuracy** $\leq \pm 2\%$ or 20 ms, whichever is greater

 $\begin{array}{ll} \textbf{Reset Time} & \leq 150 \text{ms} \\ \textbf{Initiate Time} & \leq 20 \text{ms} \\ \end{array}$

Time Delay vs. Temperature

& Voltage $\leq \pm 5\%$

Input

Voltage/Tolerance 24 to 240VAC, 12 to 24VDC /±20%

AC Line Frequency/DC Ripple $50/60 \text{ Hz} / \le 10\%$ Power Consumption $AC \le 2VA; DC \le 1W$

Output

Type Solid state

Form N0, closed during timing Rating 1A steady state, 10A inrush at 60° C Voltage Drop AC \cong 2.5V @ 1A; DC \cong 1V @ 1A Off State Leakage Current AC \cong 5mA @ 230VAC; DC \cong 1 mA

Protection

Circuitry Encapsulated

Dielectric Breakdown \geq 2000V 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

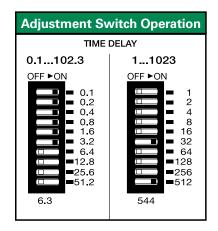
Environmental

Operating/Storage

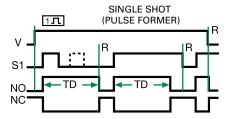
Temperature -40° to 60°C / -40° to 85°C Humidity 95% relative, non-condensing

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

Adjustment Switch Operation



Function Diagram



V = Voltage

S1 = Initiate Switch NO = Normally

Open Contact

NC = Normally

Closed Contact

TD = Time Delay

R = Reset

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