

# Single Shot (Pulse Former) TDUS Digi-Set Timing Module



TEN YEAR WARRANTY

**Obsolete Specification**  
Redesigned product is available  
see new specifications at:  
[www.ssac.com/standard/standard.htm](http://www.ssac.com/standard/standard.htm)

### Description

The TDUS Series combines digital timing circuitry with universal voltage operation. 24 to 240 V AC and 12 to 24 V DC are available in three ranges. The TDUS Series offers DIP switch selectable time delays ranging from 100 ms to 10,230 s in three ranges. Its 1 A rated output, its ability to operate on multiple voltages, and its wide range of switch selectable time delays make the TDUS Series an excellent choice for process control systems and OEM equipment.

### Operation

Input voltage must be applied to the input before and during timing. Upon momentary or maintained closure of the initiate switch (leading edge triggered), the output is energized 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 effect 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.

Approvals:

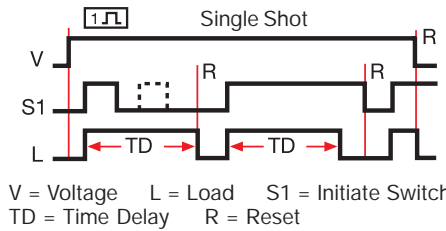
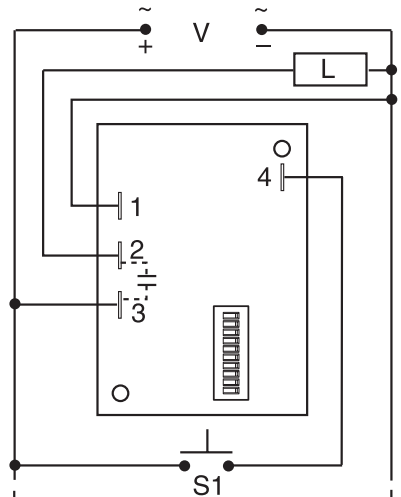
- Switch S1
- Three
- No First
- Fully Solid State
- Operates on 24 to 240 V AC and 12 to 24 V DC

| Input Voltage Range | Time Range - Seconds | Part Number |
|---------------------|----------------------|-------------|
| 24 ... 120 V AC     | 0.1 ... 102.3        | TDUSL3000A  |
| 100 ... 240 V AC    | 0.1 ... 102.3        | TDUSL3001A  |
| 12 ... 24 V DC      | 0.1 ... 102.3        | TDUSL3002A  |
| 24 ... 120 V AC     | 1 ... 1023           | TDUS3000A   |
| 100 ... 240 V AC    | 1 ... 1023           | TDUS3001A   |
| 12 ... 24 V DC      | 1 ... 1023           | TDUS3002A   |
| 24 ... 120 V AC     | 10 ... 10230         | TDUSH3000A  |
| 100 ... 240 V AC    | 10 ... 10230         | TDUSH3001A  |
| 12 ... 24 V DC      | 10 ... 10230         | TDUSH3002A  |

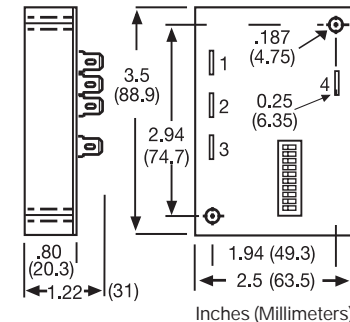
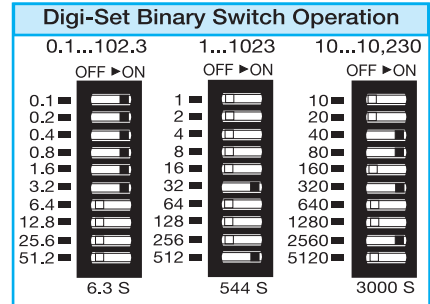
### Technical Data

|                                      |   |
|--------------------------------------|---|
| <b>Time Delay</b>                    |   |
| Type                                 | Digital integrated circuitry  |
| Range*                               | 0.1 ... 102.3 s in 0.1 s increments<br>1 ... 1023 s in 1 s increments<br>10 ... 10,230 s in 10 s increments |
| Repeat Accuracy                      | +/-0.5%   |
| Tolerance (Factory Calibration)      | +/-10%  |
| Reset Time                           | 150 ms  |
| Recycle Time                         | 150 ms  |
| Time Delay vs. Temperature & Voltage | +/-5%   |
| <b>Input</b>                         |   |
| Voltage                              | 24 ... 240 V AC, 12 ... 24 V DC +/-20%  |
| Line Frequency                       | 50 ... 60 Hz  |
| DC Ripple                            | 10%   |
| <b>Output</b>                        |   |
| Type                                 | Solid state   |
| Form                                 | Normally Open, closed during timing   |
| Rating                               | 1 A steady state, 10 A inrush at 60°C   |
| Voltage Drop                         | ≅ 2.5 V at 1 A  |
| Leakage                              | ≅ 5 mA  |
| <b>Protection</b>                    |   |
| Circuitry                            | Encapsulated  |
| Dielectric Breakdown                 | ≥ 2000 V RMS terminals to mounting surface  |
| Insulation Resistance                | ≥ 100 MΩ  |
| <b>Mechanical</b>                    |   |
| Mounting                             | Surface mount with two #8 (M4 x 0.7) screws   |
| Package                              | 3.5 x 2.5 x 1.2 in. (88.9 x 63.5 x 31 mm)   |
| Termination                          | 0.25 in. (6.35 mm) male quick connect terminals   |
| <b>Environmental</b>                 |   |
| Operating Temperature                | -40°C ... +80°C   |
| Storage Temperature                  | -40°C ... +85°C   |
| Humidity                             | 95% relative, non-condensing  |
| Weight                               | ≅ 4.8 oz (136.1 g)  |

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



V = Voltage L = Load S1 = Initiate Switch  
TD = Time Delay R = Reset



### Accessories

- Female quick connect  
P/Ns:  
P1015-13(AWG 10/12)  
P1015-64(AWG 14/16)  
P1015-14(AWG 18/22)
- Quick connect to screw adaptor  
P/N: P1015-18

See accessory pages at the end of this section.