

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



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- Switch Selectable Time Setting
- 0.1 s ... 102.3 m in 3 Ranges
- +/- 0.5% Repeat Accuracy
- +/- 2% Setting Accuracy
- 1 A Solid State Output
- Encapsulated
- Wide Voltage Ranges

Approvals:

### Description

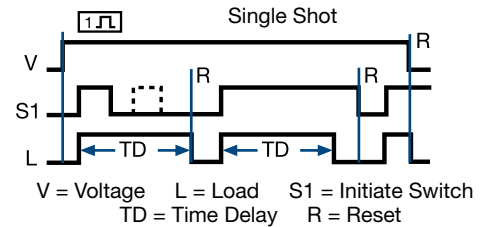
The TDUS Series combines digital timing circuitry with universal voltage operation. Voltages of 24 to 240 V AC and 12 to 24 V DC are available in three ranges. The TDUS Series offers DIP switch selectable time delays ranging from 0.1 seconds to 102.3 minutes in three ranges. Its 1 A rated output, ability 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

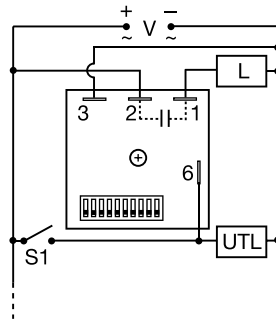
Input voltage must be applied before and during timing. Upon momentary or maintained closure of the initiate switch (leading edge triggered), the output energizes for a measured interval of time. At the end of the delay, the output de-energizes. Opening or reclosing the initiate switch during timing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

### Function



### Connection



Dashed lines are internal connections.

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

### Available Models-

- TDUS3000A
- TDUS3002A
- TDUSH3000A
- TDUSL3000A

**Don't see what you need? Call us for a minimum quantity and price quote!**

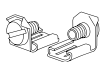
### Ordering Table

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

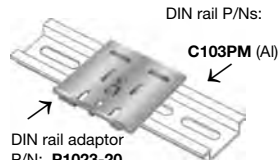
### Accessories



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



DIN rail P/Ns:  
C103PM (A)

DIN rail adaptor  
P/N: P1023-20

See accessory pages for specifications.

# Single Shot (Pulse Former)

## TDUS Digi-Set

### Timing Module

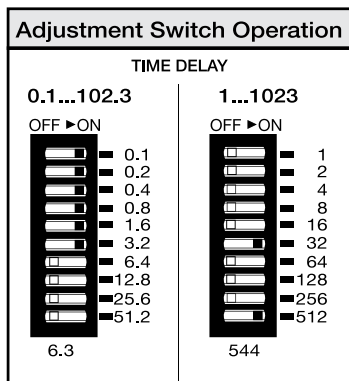
Dedicated  
timers

#### Technical Data

|   |  |   |
|---|--|---|
| <b>Time Delay</b><br>Range*<br><br>Repeat Accuracy<br>Setting Accuracy<br>Reset Time<br>Initiate Time<br>Time Delay vs. Temperature & Voltage         | 0.1 ... 102.3 s in 0.1 s increments<br>1 ... 1023 s in 1 s increments<br>0.1 ... 102.3 m in 0.1 m increments<br>+/-0.5% or 20 ms, whichever is greater<br>+/-2% or 20 ms, whichever is greater<br>≤ 150 ms<br>≤ 20 ms<br>≤ +/-5%       | *For CE approved applications, power must be removed from the unit when a switch position is changed. |
| <b>Input</b><br>Voltage/Tolerance<br>Line Frequency<br>Power Consumption<br>DC Ripple   | 24 ... 240 V AC, 12 ... 24 V DC +/-20%<br>50 ... 60 Hz<br>AC ≤ 2 VA; DC ≤ 1 W<br>≤ 10%   |   |
| <b>Output</b><br>Type<br>Form<br>Rating<br>Voltage Drop<br>Off State Leakage Current  | Solid state<br>Normally Open, closed during timing<br>1 A steady state, 10 A inrush at 60°C<br>AC ≅ 2.5 V at 1 A; DC ≅ 1 V at 1 A<br>AC ≅ 5 mA at 230 V AC; DC ≅ 1 mA  |   |
| <b>Protection</b><br>Circuitry<br>Dielectric Breakdown<br>Insulation Resistance<br>Polarity   | Encapsulated<br>≥ 2000 V RMS terminals to mounting surface<br>≥ 100 MΩ<br>DC units are reverse polarity protected  |   |
| <b>Mechanical</b><br>Mounting<br>Package<br>Termination<br><b>Environmental</b><br>Operating Temperature<br>Storage Temperature<br>Humidity<br>Weight | Surface mount with one #10 (M5 x 0.8) screw<br>2 x 2 x 1.21 in (50.8 x 50.8 x 30.7 mm)<br>0.25 in. (6.35 mm) male quick connect terminals<br><br>-40°C ... +60°C<br>-40°C ... +85°C<br>95% relative, non-condensing<br>≅ 2.4 oz (68 g) |   |

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#### Mechanical View



Add the value of switches in the ON position for the total time delay.

