

- Microcontroller +/-0.1\% Repeat Accuracy
- Six Timing Functions are Switch Selectable
- 0.1 s ... 1000 m in Six Ranges - Knob Adjustable Time Delay
- Universal Input Voltage
19... 264 V AC \& 19... 30 V DC
- 10 A, SPDT or DPDT Relay Contacts
Approvals: 7I $\$$


## Accessories



See accessory pages for specifications.

## Description

The TRU Series is a multifunction, knob adjustable, Universal Time Delay Relay. It includes six of the most popular timing functions selected by a slide switch. The time delay is knob adjustable and the time delay range is switch selectable. The repeat accuracy is $\pm 0.1 \%$. Both function and time range can be selected on the top face of the unit. In addition to multifunctioning and multiple time ranges, the TRU Series features universal input voltage; 19 to 264 V AC and 19 to 30 V DC and full 10 A output relay. The TRU Series can directly replace up to 1000 competitive time delay relay models.

## Operation

A six position slide switch selects Delay on Make, Interval, Single Shot, Recycling (ON time first), Delay on Break, and Retriggerable Single Shot. 8 Pin DPDT base wiring is limited to Delay on Make, Interval, and Recycling functions. All six functions are available in the 8 pin SPDT and 11 pin DPDT versions.

## Connection



8 Pin DPDT
Delay On Make
Interval
Recycling


S1 = Initiate Switch
Dashed lines are internal connections.
Relay contacts are isolated.
8 Pin SPDT

Delay On Make Interval Single Shot
Recycling (ON Time First) Delay on Break
Retriggerable Single Shot

11 Pin DPDT

## Function


$\mathrm{V}=$ Voltage $\mathrm{S} 1=$ Initiate Switch $\mathrm{R}=$ Reset TD
= Time Delay NO = Normally Open Contact $t=$ Incomplete Time Delay

## Available Models-

-TRU1
-TRU2
-TRU3
Don't see what you need? Call us for a minimum quantity and price quote!
Ordering Table

| Voltage | Base Wiring | Functions | Part Number |
| :---: | :---: | :---: | :---: |
| $19 . . .264$ V AC; 19 ... 30 V DC | 8 pin DPDT | 3 | TRU1 |
| $19 . . .264$ V AC; $19 . . .30$ V DC | 8 pin SPDT | 6 | TRU2 |
| $19 . . .264$ V AC; $19 . . .30$ V DC | 11 pin DPDT | 6 | TRU3 |

[^0]Multifunction, Multirange

| Technical Data |  |
| :---: | :---: |
| Time Delay |  |
| Type | Digital integrated circuitry |
| Range: Switch Selectable** | $\begin{aligned} & 0.1 \mathrm{~s} \ldots 1000 \mathrm{~m} \text { in } 6 \text { ranges-- } 0.1 \ldots 10,1 \ldots 100 \text { or } 10 \ldots 1000 \mathrm{~s} \text {; } \\ & 0.1 \ldots 10,1 \ldots 100 \text { or } 10 \ldots 1000 \mathrm{~m} \end{aligned}$ |
| Adjustments | Multiplier: 4 position DIP switch selects $\mathrm{x} 0.1, \mathrm{x} 1, \mathrm{x} 10$, and s or m Time Setting: Onboard knob adjustment with 1 ... 100 reference dial |
| LED Indication | Two LED's indicate input voltage applied \& output relay status |
| Repeat Accuracy | +/-0.1\%, or $+/-20 \mathrm{~ms}$, whichever is greater |
| Reset Time | $\leq 300 \mathrm{~ms}$ |
| Time Delay vs. Temp. \& Voltage | +/-2\% |
| Input |  |
| Voltage--Universal Input Range | $19 . . .264 \mathrm{~V} \mathrm{AC} \mathrm{and} 19 . . .30 \mathrm{~V}$ DC |
| Line Frequency | $50 \ldots 60 \mathrm{~Hz}$ |
| Output |  |
| Type | Electromechanical relay |
| Form | Isolated SPDT \& DPDT |
| Rating | 10 A resistive at $120 / 240 \mathrm{~V} \mathrm{AC} \mathrm{\&} 28 \mathrm{~V}$ DC; $1 / 3 \mathrm{hp}$ at 120/240 V AC |
| Life | Mechanical: $1 \times 10^{7}$; Electrical: $1 \times 10^{6}$ |
| Protection |  |
| Transient | 38 joules |
| Isolation Voltage | $\geq 1500$ V RMS input to output |
| Polarity | DC units are reversed polarity protected |
| Mechanical |  |
| Mounting | Plug-in socket |
| Package | $3.44 \times 2.39 \times 1.78$ in. (87.3 $\times 60.7 \times 45.2 \mathrm{~mm}$ ) |
| Termination | Octal plug (8 Pin) or magnal plug (11 Pin) |
| Environmental |  |
| Operating Temperature | $-20^{\circ} \mathrm{C} . . .+65^{\circ} \mathrm{C}$ |
| Storage Temperature | $-30^{\circ} \mathrm{C} \ldots+85^{\circ} \mathrm{C}$ |
| Weight | $\cong 6 \mathrm{oz}(170 \mathrm{~g})$ |

[^1]

Inches (Millimeters)


[^0]:    - denotes a preferred product

[^1]:    ** For CE approved applications, power must be removed when a switch position is changed.

