

TRU SERIES

Knob Adjustable Universal Time Delay Relay

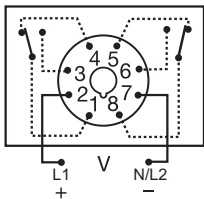


8-PIN



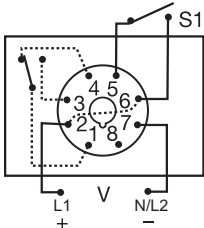
11-PIN

Wiring Diagram



8-PIN DPDT

Delay-on-Make
Interval
Recycling

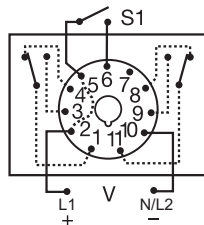


8-PIN SPDT

Delay-on-Make
Interval
Single Shot
Recycling
(ON Time First, Equal
Recycle Delays)
Delay-on-Break
Retriggerable Single Shot

V = Voltage
S1 = Initiate Switch

Relay contacts
are isolated



11-PIN DPDT

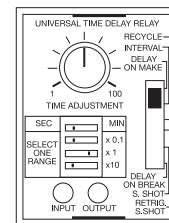
Delay-on-Make
Interval
Single Shot
Recycling
(ON Time First, Equal
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Delay-on-Break
Retriggerable Single Shot

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 + 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 264VAC and 19 to 30VDC and full 10A 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, equal recycle delays), 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.



Features & Benefits

FEATURES	BENEFITS
Microcontroller based	Repeat Accuracy + / - 0.1% or + / - 20ms, whichever is greater
6 time ranges (0.1s to 1,000m)	Broad range will satisfy most requirements
Knob adjustable time delay	Allows user to fine tune time delay based on application needs
Universal input voltage	Makes it versatile for use in most applications
Multifunction	Provides the most common standard timing functions
LED Indicators	Provide visual indication of input voltage and relay status
10A isolated output contacts	Allows control of loads for AC or DC voltages

Ordering Information

MODEL	INPUT VOLTAGE	BASE WIRING	FUNCTIONS
TRU1	19 to 264VAC; 19 to 30VDC	8-pin DPDT	3
TRU2	19 to 264VAC; 19 to 30VDC	8-pin SPDT	6
TRU3	19 to 264VAC; 19 to 30VDC	11-pin DPDT	6

If you don't find the part you need, call us for a custom product 800-843-8848

TRU SERIES

Accessories



BZ1 Front Panel Mount Kit

Provides an easy method of through-the-panel mounting of 8- or 11-pin plug-in timers, flashers, and other controls.



NDS-8 Octal 8-pin Socket

8-pin 35mm DIN rail or surface mount. Rated at 10A @ 300VAC. Surface mounted with two #6 (M 3.5 x 0.6) screws or snaps onto a 35 mm DIN rail. Uses PSC8 hold-down clips.



NDS-11 11-pin Socket

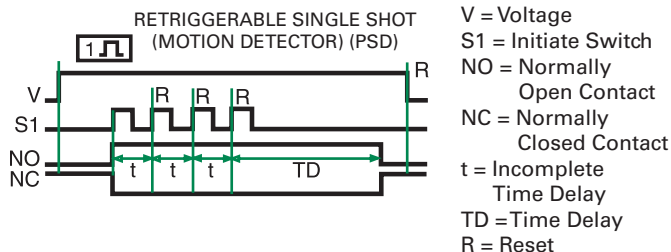
11-pin 35mm DIN rail or surface mount. Rated at 10A @ 300VAC. Surface mounted with two #6 (M 3.5 x 0.6) screws or snaps onto a 35 mm DIN rail. Uses PSC11 hold-down clips.



PSC8 or PSC11 Hold-down Clips

Securely mounts plug-in controls in any position. Provides protection against vibration. Use PSC8 with NDS-8 Octal Socket or PSC11 with NDS-11 Socket. Sold in pairs.

Function Diagram



Specifications

Time Delay

Type

Range

Switch Selectable

Digital integrated circuitry

0.1s - 1000m in 6 ranges:

- 1) 0.1 - 10s
- 2) 1 - 100s
- 3) 10 - 1000s
- 4) 0.1 - 10m
- 5) 1 - 100m
- 6) 10 - 1000m

Adjustments

Multiplier

Time Setting

Two LEDs indicate

Repeat Accuracy

Reset Time

Time Delay vs Temp. & Voltage

Input

Voltage - Universal

Input Range

AC Line Frequency

Output

Type

Form

Rating

Life

Protection

Transient

Isolation Voltage

Polarity

Mechanical

Mounting

Dimensions

Termination

Environmental

Operating/Storage

Temperature

Weight

4 position DIP switch selects x0.1, x1, x10, and sec. or min. Onboard knob adjustment with 1 - 100 reference dial

1) Input voltage applied

2) Output relay status
 $\pm 0.1\%$ or $\pm 20\text{ms}$, whichever is greater
 $\leq 300\text{ms}$

$\pm 2\%$

19 to 264VAC and 19 to 30VDC
 50/60Hz

Electromechanical relay
 SPDT or DPDT, isolated
 10A resistive @ 120/240VAC & 28VDC;
 1/3 hp @ 120/240VAC
 Mechanical - 1×10^7 ; Electrical - 1×10^6

38 joules
 $\geq 1500\text{V RMS}$ input to output
 DC units are reversed polarity protected

Plug-in socket
H 87.3 mm (3.44"); **W** 60.7 mm (2.39");
D 45.2 mm (1.78")
 Octal 8-pin plug-in or magnal 11-pin plug-in

-20° to 65°C / -30° to 85°C
 $\approx 6 \text{ oz}$ (170 g)

Mouser Electronics

Authorized Distributor

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[Littelfuse:](#)

[TRU3](#) [TRU2](#) [TRU1](#)