TRU SERIES

Knob Adjustable Universal Time Delay Relay




8-PIN

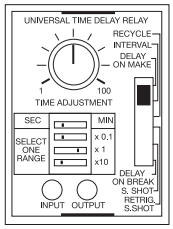

11-PIN

Description

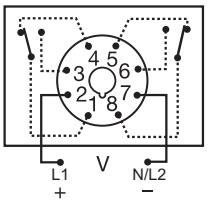
The TRU Series is a multifunction, knob adjustable, Universal Time Delay Relay. It includes six of the most popular timing functions selected by a slide switch. The time delay is knob adjustable and the time delay range is switch selectable. The repeat accuracy is + 0.1%. Both function and time range 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

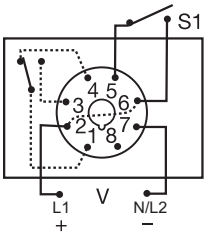
A six position slide switch selects delay-on-make, interval, single shot, recycling (ON time first, equal recycle delays), delay-on-break, and retriggerable single shot. 8-pin DPDT base wiring is limited to delay-on-make, interval, and recycling functions. All six functions are available in the 8-pin SPDT and 11-pin DPDT versions.



Wiring Diagram



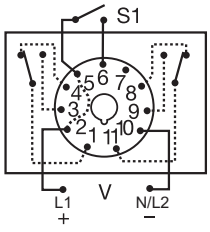
8-PIN DPDT
Delay-on-Make
Interval
Recycling



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 Recycle Delays)
Delay-on-Break
Retriggerable Single Shot

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

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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.

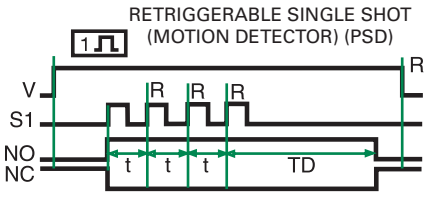


NDS-11 11-pin Socket
11-pin 35mm DIN rail or surface mount. Rated at 10A @ 300VAC. Surface mounted with two #6 (M 3.5 x 0.6) screws or snaps onto a 35 mm DIN rail. Uses PSC11 hold-down clips.



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



V = Voltage
S1 = Initiate Switch
NO = Normally Open Contact
NC = Normally Closed Contact
t = Incomplete Time Delay
TD = Time Delay
R = Reset

Specifications

Time Delay	
Type	Digital integrated circuitry
Range	
Switch Selectable	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	4 position DIP switch selects x0.1, x1, x10, and sec. or min.
Time Setting	Onboard knob adjustment with 1 - 100 reference dial
Two LEDs indicate	**1)** Input voltage applied **2)** Output relay status
Repeat Accuracy	±0.1% or ±20ms, whichever is greater
Reset Time	≤ 300ms
Time Delay vs Temp. & Voltage	±2%
Input	
Voltage - Universal Input Range	19 to 264VAC and 19 to 30VDC
AC Line Frequency	50/60Hz
Output	
Type	Electromechanical relay
Form	SPDT or DPDT, isolated
Rating	10A resistive @ 120/240VAC & 28VDC; 1/3 hp @ 120/240VAC
Life	Mechanical - 1 x 10^7; Electrical - 1 x 10^6
Protection	
Transient	38 joules
Isolation Voltage	≥ 1500V RMS input to output
Polarity	DC units are reversed polarity protected
Mechanical	
Mounting	Plug-in socket
Dimensions	**H** 87.3 mm (3.44"); **W** 60.7 mm (2.39"); **D** 45.2 mm (1.78")
Termination	Octal 8-pin plug-in or magnal 11-pin plug-in
Environmental	
Operating/Storage Temperature	-20° to 65°C / -30° to 85°C
Weight	≅ 6 oz (170 g)

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