Multifunction timers

Multifunction, Multirange

TRU Series Universal Time Delay Relay



- 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:





Accessories



Panel mount kit P/N: **BZ1**



Hold down clips P/Ns: PSC8 (NDS-8) PSC11 (NDS-11)



11 pin socket P/N: NDS-11





Octal 8 pin socket P/N: NDS-8

See accessory pages for specifications.

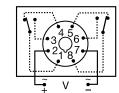
Description

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 ± 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

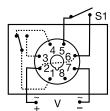
A six position slide switch selects Delay on Make, Interval, Single Shot, Recycling (ON time first), Delay on Break, and Retriggerable Single Shot. 8 Pin DPDT base wiring is limited to Delay on Make, Interval, and Recycling functions. All six functions are available in the 8 pin SPDT and 11 pin DPDT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

Connection



8 Pin DPDT

Delay On Make Interval Recycling



8 Pin SPDT

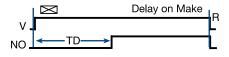
Delay On Make Interval Single Shot Recycling (ON Time First) Delay on Break Retriggerable Single Shot

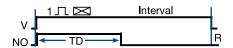


S1 = Initiate Switch

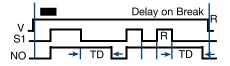
Dashed lines are internal connections. Relay contacts are isolated.

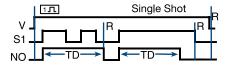
Function

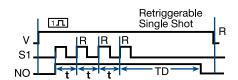












V = Voltage S1 = Initiate Switch R = Reset TD = Time Delay NO = Normally Open Contact t = Incomplete Time Delay

Available Models-

•TRU1 •TRU2 •TRU3

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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

For Info: www.switchesunlimited.com ☐ sales@switchesunlimited.com Phone: 800-221-0487 Fax: 718-672-6370

Multifunction, Multirange

TRU Series

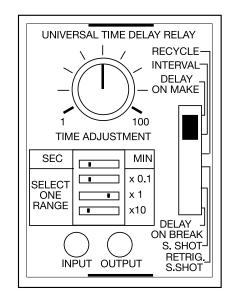
Universal Time Delay Relay



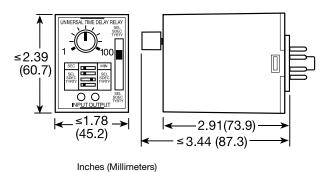
Technical Data

Time Delay Type Range: Switch Selectable** Adjustments LED Indication Repeat Accuracy Reset Time	Digital integrated circuitry 0.1 s 1000 m in 6 ranges0.1 10, 1 100 or 10 1000 s; 0.1 10, 1 100 or 10 1000 m Multiplier: 4 position DIP switch selects x0.1, x1, x10, and s or m Time Setting: Onboard knob adjustment with 1 100 reference dial Two LED's indicate input voltage applied & output relay status +/-0.1%, or +/-20 ms, whichever is greater ≤ 300 ms
Time Delay vs. Temp. & Voltage	≤ 300 ms +/-2%
Input VoltageUniversal Input Range Line Frequency	19 264 V AC and 19 30 V DC 50 60 Hz
Output Type Form Rating Life	Electromechanical relay Isolated SPDT & DPDT 10 A resistive at 120/240 V AC & 28 V DC; 1/3 hp at 120/240 V AC Mechanical: 1×10^7 ; Electrical: 1×10^6
Protection Transient Isolation Voltage Polarity	38 joules ≥ 1500 V RMS input to output DC units are reversed polarity protected
Mechanical Mounting Package Termination	Plug-in socket 3.44 x 2.39 x 1.78 in. (87.3 x 60.7 x 45.2 mm) Octal plug (8 Pin) or magnal plug (11 Pin)
Environmental Operating Temperature Storage Temperature Weight	-20°C +65°C -30°C +85°C ≅ 6 oz (170 g)

^{**} For CE approved applications, power must be removed when a switch position is changed.



Mechanical View



For Info: www.switchesunlimited.com \square sales@switchesunlimited.com Phone: 800-221-0487 \square Fax: 718-672-6370