

Multifunction, Multirange TRU Series Universal Time Delay Relay

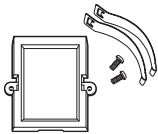
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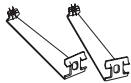
- Microcontroller +/-0.1% Repeat Accuracy
- Six Timing Functions are Switch Selectable
- 0.1 s ... 1000 m in Six Ranges
- Knob Adjustable Time Delay
- Universal Input Voltage 19...264 V AC & 19...30 V DC
- 10 A, SPDT or DPDT Relay Contacts

Approvals:

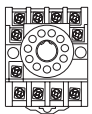
Accessories



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.

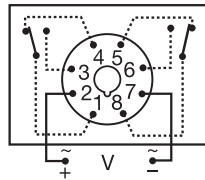
Description

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 $\pm 0.1\%$. 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

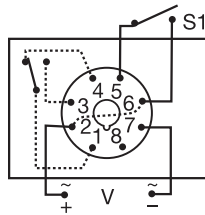
A six position slide switch selects Delay on Make, Interval, Single Shot, Recycling (ON time first), Delay on Break, and Retriggerable Single Shot. 8 Pin DPDT base wiring is limited to Delay on Make, Interval, and Recycling functions. All six functions are available in the 8 pin SPDT and 11 pin DPDT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

Connection



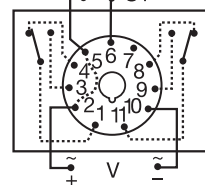
8 Pin DPDT

Delay On Make
Interval
Recycling



8 Pin SPDT

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

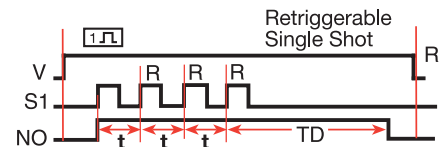
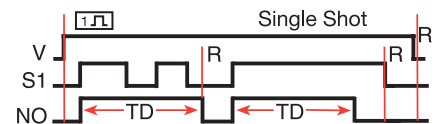
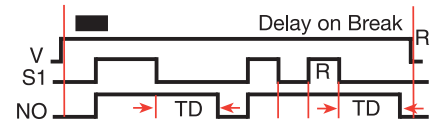
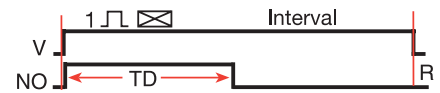
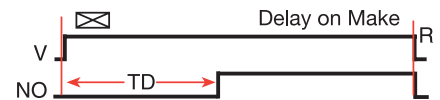


11 Pin DPDT

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

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

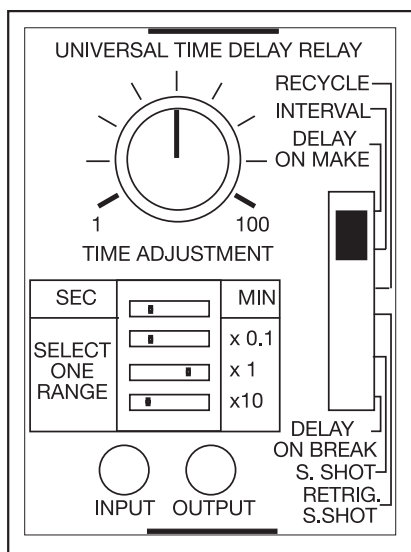
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Technical Data

Time Delay Type Range: Switch Selectable** Adjustments LED Indication Repeat Accuracy Reset Time Time Delay vs. Temp. & Voltage	Digital integrated circuitry 0.1 s ... 1000 m in 6 ranges--0.1 ... 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 +/-2%
Input Voltage--Universal 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 x 10 ⁷ ; Electrical: 1 x 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)

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



Mechanical View

