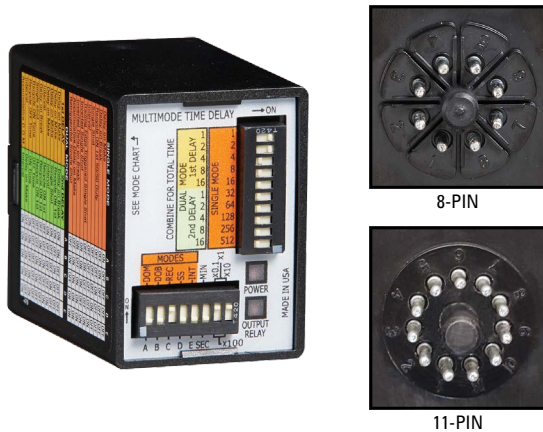


TRDU SERIES



Description

The TRDU Series is a versatile universal time delay relay with 21 selectable single and dual functions. The dual functions replace up to three timers required to accomplish the same function. Both the function and the timing range are selectable with switches located on the face of the unit. Two LED's indicate input voltage and output status. This device offers full 10A isolated relay output contacts in either SPDT or DPDT. The TRDU replaces hundreds of part numbers, thereby, reducing your stock inventory requirements.

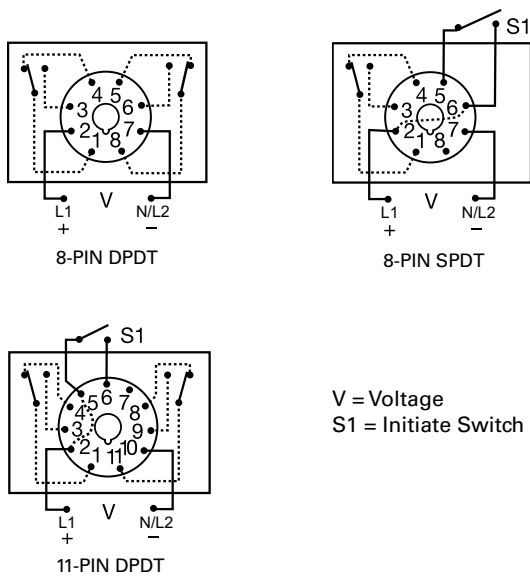
21 Functions

Five switches are provided to set one of 10 single or 11 dual modes of operation.

Features & Benefits

| FEATURES | BENEFITS |
|---|---|
| Multifunction: 21 timing functions | Replace hundreds of parts and reduce stocking requirements |
| Microcontroller based | Repeat Accuracy + / - 0.1% |
| User selectable time delay | Timing settings are switch selectable 0.1s - 1,705h in eight ranges for added flexibility |
| Isolated 10A, SPDT or DPDT output contacts | Allows control of loads for AC or DC voltages |
| LED indicators | Provides visual indication of input voltage and relay status |

Wiring Diagram

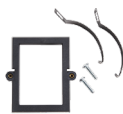






Ordering Information

| MODEL | INPUT VOLTAGE | BASE CONNECTION |
|-----------|---------------|-----------------|
| TRDU120A1 | 120VAC | 8-pin, DPDT* |
| TRDU120A2 | 120VAC | 8-pin, SPDT |
| TRDU120A3 | 120VAC | 11-pin, DPDT |
| TRDU12D1 | 12VDC | 8-pin, DPDT* |
| TRDU12D2 | 12VDC | 8-pin, SPDT |
| TRDU230A2 | 230VAC | 8-pin, SPDT |
| TRDU24A1 | 24VAC/DC | 8-pin, DPDT* |
| TRDU24A2 | 24VAC/DC | 8-pin, SPDT |
| TRDU24A3 | 24VAC/DC | 11-pin, DPDT |

*Limited to 9 operating functions in 8-pin DPDT units.

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. Surface mounted with two #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. Surface mounted with two #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 sets of two.
- 
C103PM (AL) DIN Rail
35 mm aluminum DIN rail available in a 36 in. (91.4 cm) length.

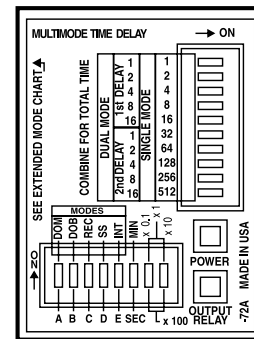
TRDU SERIES

Specifications

| | |
|--|--|
| Time Delay Type | Microcontroller |
| Range: Switch Selectable** | Single Functions: 0.1s - 1,705h in 8 ranges Dual Functions: 0.1s - 3,100m each in 8 ranges |
| Adjustments | Multiplier: 3 position DIP switches select 0.1, 1, 10, or 100 in s or m |
| Setting Accuracy | ±1% or 50ms, whichever is greater |
| Repeat Accuracy | ±0.1% or 20ms, whichever is greater |
| Timing Functions | Five switches are provided to set one of twenty-one single or dual functions |
| Reset Time | ≤ 50ms |
| Initiate Time | 120VAC: 75ms |
| Time Delay vs Temp. & Voltage | ±1% |
| Indication | 1) Input voltage applied 2) Output relay status |
| Two LEDs indicate Input Voltage Tolerance | 12VDC, 24VAC/DC, 120VAC, or 230VAC |
| 12VDC & 24VAC/DC 120 & 230VAC | -15% - 20% -20% - 10% |
| AC Line Frequency | 50/60Hz |
| Power Consumption | 24 to 230V ≤ 3W; 12VDC ≤ 2W |
| Output Type | Electromechanical relay |
| Form Rating | SPDT or DPDT |
| Life | 10A resistive @ 120/240VAC & 28 VDC; 1/3 hp @ 120/240VAC Mechanical – 1 x 10 ⁷ ; Electrical – 1 x 10 ⁶ |

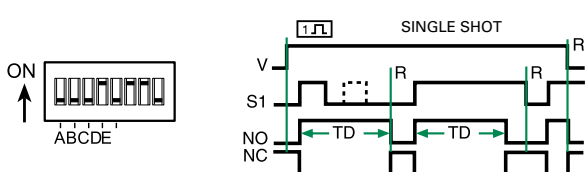
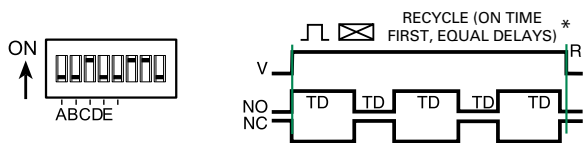
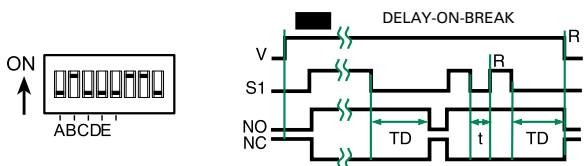
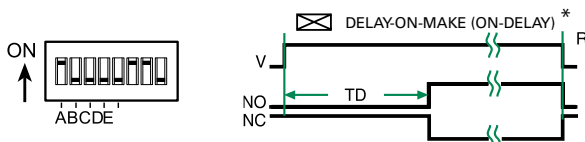
| | |
|--|--|
| Protection | ≥ 1500V RMS input to output |
| Isolation Voltage | ≥ 100 MΩ |
| Insulation Resistance | DC units are reverse polarity protected |
| Polarity | |
| Mechanical Mounting | Plug-in socket |
| Dimensions | H 76.7 mm (3.1"); W 60.7 mm (2.39"); D 45.2 mm (1.78") |
| Termination | Octal 8-pin plug-in or magnal 11-pin plug-in |
| Environmental Operating/Storage Temperature | -20° to 65°C / -40° to 85°C |
| Weight | ≈ 5.8 oz (164 g) |

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

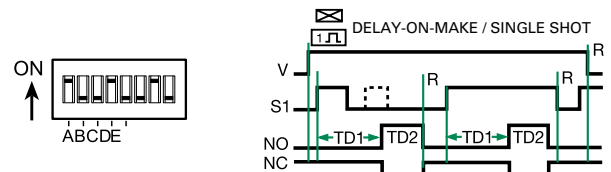
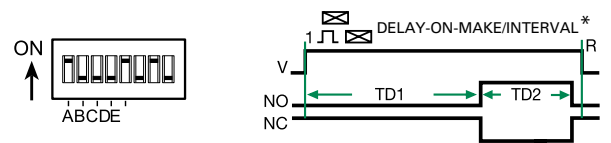
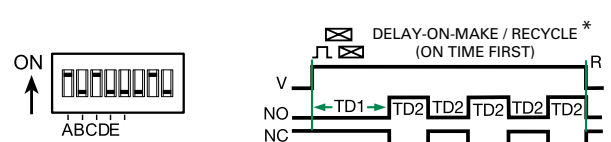
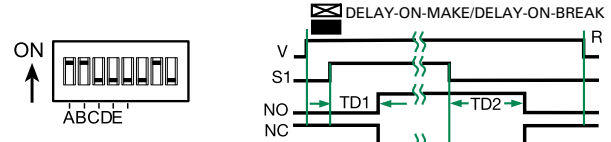


Function Diagrams

Single Functions

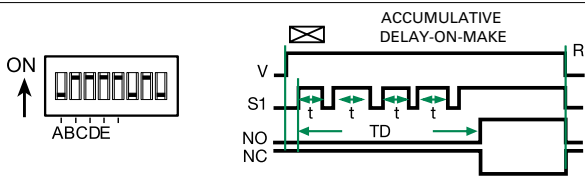
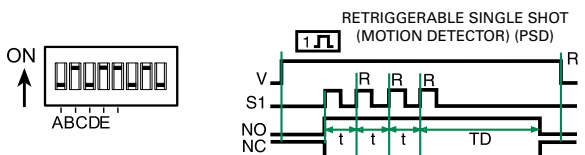
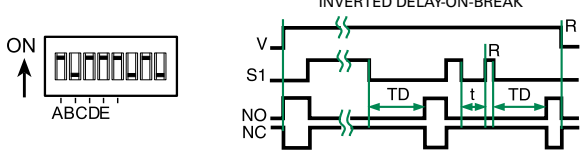
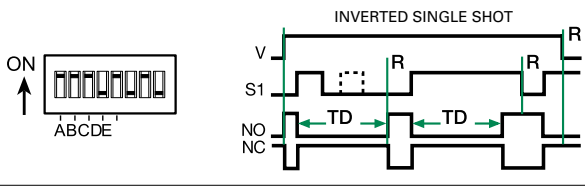
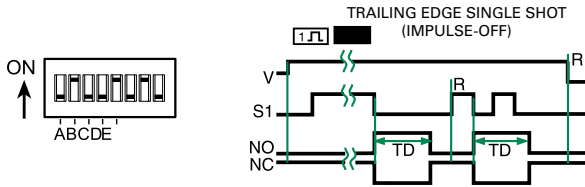
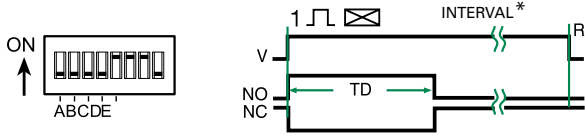


Dual Functions

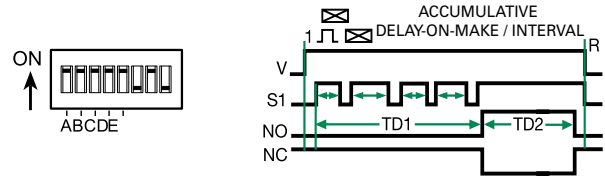
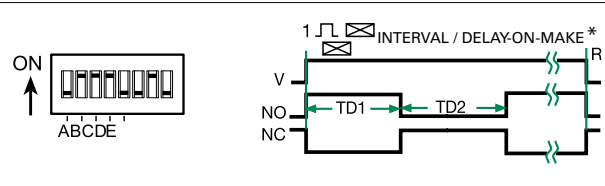
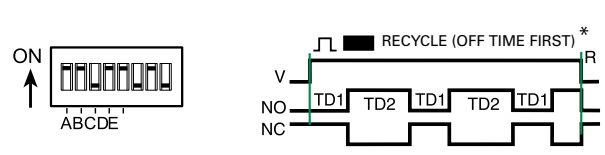
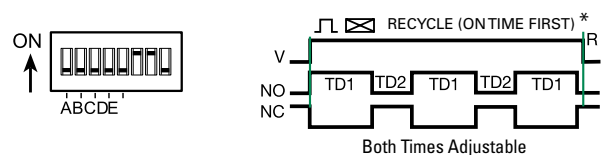
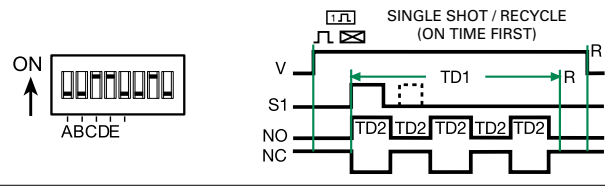
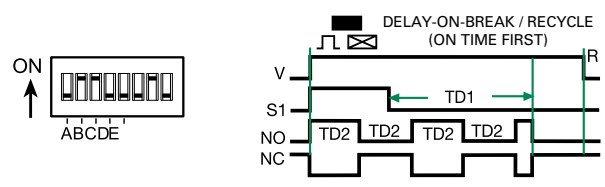
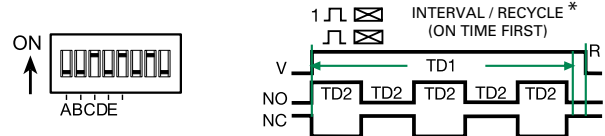


TRDU SERIES

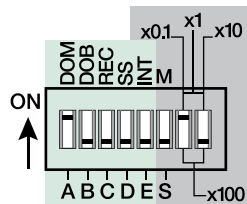
Single Functions



Dual Functions



KEY



5 Switches for Function Selection

3 Switches for Time Delay Range

LEGEND

V = Voltage
 R = Reset
 S1 = Initiate Switch
 NO = Normally Open Contact
 NC = Normally Closed Contact
 TD, TD1, TD2 = Complete Time Delay
 t = Partial Time Delay
 DOM = Delay-on-Make
 DOB = Delay-on-Break
 REC = Recycle
 SS = Single Shot
 INT = Interval
 M = Minutes
 S = Seconds
 — = Undefined time

* 9 Functions included in the 8 pin DPDT models

NOTE: The time delay range is the same for both functions when dual functions are selected.