Expertise Applied | Answers Delivered


11-PIN

## Wiring Diagram



## Ordering Information

| MODEL | INPUT VOLTAGE | DELAY-ONMAKE | DELAY-ON- <br> BREAK | PLUG TYPE |
| :---: | :---: | :---: | :---: | :---: |
| TDMB411 | 120VAC | 0.1 - 102.3s in 0.1 s increments | 0.1 - 102.3s in 0.1 s increments | Octal (8-pin) SPDT |
| TDMB413D | 120VAC | 0.1-102.3s in 0.1 s increments | 10-10230s in 10s increments | 11-pin DPDT |
| TDMB422 | 120VAC | 1-1023s in 1s increments | 1-1023s in 1s increments | Octal (8-pin) SPDT |
| TDMB422D | 120VAC | 1-1023s in 1s increments | 1-1023s in 1s increments | 11-pin DPDT |
| TDMB622 | 230VAC | 1-1023s in 1s increments | 1-1023s in 1s increments | Octal (8-pin) SPDT |

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## Description

The TDMB combines both delay-on-make and delay-on-break functions into one plug-in package. Selection of the time period is accomplished with dual switches, one for the on delay and the other for the off delay. SPDT or DPDT output options provide isolated, 10A switching capability.
Operation (Delay-on-Make/Delay-on-Break)
Input voltage must be applied at all times. The output relay is de-energized. Upon closure of the initiate switch, the green LED glows and the delay-on-make time delay (T1) begins. At the end of T1, the output relay energizes and the red LED glows. When the initiate switch opens, the green LED turns OFF and the delay-on-break time delay (T2) begins. At the end of T2, the output relay de-energizes and the red LED turns OFF.
Reset: Removing input voltage resets time delay and output. Opening the initiate switch during the delay-on-make delay, resets T1. Closing the initiate switch during the delay-on-break delay, resets T2.

## Features \& Benefits

| FEATURES | BENEFITS |
| :--- | :--- |
| Digital circuitry | Repeat Accuracy $+/-0.1 \%$, <br> Setting accuracy $+/-2 \%$ |
| Isolated, 10A, SPDT or <br> DPDT output contacts | Allows control of loads for AC or DC voltages |
| User selectable <br> Delay-on-Make and <br> Delay-on-Break <br> time delay | Timing settings are independently adjustable for <br> added flexibility |
| Industry standard octal <br> plug connection | Eliminates need for special connectors |
| LED Indication | Provides visual indication of initiate, timing, and <br> relay output status |
| DIP Switch Adjustment | Provides first time setting accuracy |

## 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 35 mm 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 35 mm 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.

| Specifications |  |
| :---: | :---: |
| Time Delay |  |
| Type | Microcontroller circuitry |
| Range** | $0.1-102.3 \mathrm{~s}$ in 0.1 1s increments |
|  | 1-1023s in 1 s increments |
|  | 10-10,230s in 10s increments |
| Repeat Accuracy | $\pm 0.1 \%$ or 20 ms , whichever is greater |
| Setting Accuracy | $\leq \pm 2 \%$ or 50 ms , whichever is greater |
| Reset Time | $\leq 150 \mathrm{~ms}$ |
| Time Delay vs Temp. |  |
| \& Voltage | $\leq \pm 2 \%$ |
| Control LED Indicator | Green; on when the initiate switch is closed |
| Voltage | 12 or 24VDC; 24, 120, or 230VAC: |
|  | 24 to 240VAC/DC; 12 to 48VDC |
| Tolerance |  |
| 12VDC \& 24VDC/AC | -15\% - 20\% |
| 110 to 230VAC/DC | -20\% - 10\% |
| AC Line Frequency/DC Ripple | $50 / 60 \mathrm{~Hz}$ / $\leq 10 \%$ |
| Power Consumption | $\mathrm{AC} \leq 2 \mathrm{VA} ; \mathrm{DC} \leq 2 \mathrm{~W}$ |
| Output |  |
| Type | Electromechanical relay |
| Form | SPDT or DPDT |
| Rating | 10A resistive @ 120/240VAC \& 28VDC; 1/3hp @ 230VAC |
| Life | Mechanical - $1 \times 10^{7}$; Electrical - $1 \times 10^{5}$ |
| Max. Switching Voltage | 250VAC |
| Relay LED Indicator | Red; on when output relay energizes (not included on 12VDC units) |
| Protection |  |
| Insulation Resistance | $\geq 100 \mathrm{M}$ |
| Polarity | DC units are reverse polarity protected |
| Isolation Voltage | $\geq 1500 \mathrm{~V}$ RMS input to output |
| Mechanical |  |
| Mounting | Plug-in socket |
| Dimensions | H $81.3 \mathrm{~mm}\left(3.2^{\prime \prime}\right)$; W $60.7 \mathrm{~mm}\left(2.4^{\prime \prime}\right)$; |
| Termination | Octal 8-pin plug-in, magnal 11-pin plug-in |
| Environmental |  |
| Operating/Storage |  |
| Temperature | $-20^{\circ}$ to $60^{\circ} \mathrm{C} /-30^{\circ}$ to $85^{\circ} \mathrm{C}$ |
| Weight | $\cong 602(170 \mathrm{~g})$ |

Closed Contact

## Digi-Set Binary Switch Operation



Function Diagram

$\mathrm{V}=$ Voltage
S1 = Initiate Switch
NO = Normally
Open Contact
NC = Normally
TD1,TD2 = Time Delay
R = Reset
$\rightarrow \boldsymbol{- K}=\underset{\text { Time }}{\text { Undefined }}$

[^1]
## X-ON Electronics

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[^0]:    If you don't find the part you need, call us for a custom product 800-843-8848

[^1]:    ** For CE approved applications, power must be removed from the unit when a switch position is changed.

