

## VTM1 Series, On-Delay, Timing Module



### Product Facts

- On-delay timing mode
- Reliable solid state timing circuitry
- Excellent transient protection
- Compact design
- Flame retardant, solvent resistant housing
- File E60363, File LR33434



### Timing Specifications

**Timing Mode** — On-Delay

**Timing Ranges** — 0.5 to 10 / 3 to 60 sec.; 0.5 to 10 / 3 to 60 min.

**Timing Range Selection** — Screwdriver select via recessed 8-position selector dial.

**Timing Adjustment** — External resistor or potentiometer. An external resistance of 1 megohm is required to obtain the maximum time for all ranges. To determine the actual resistance needed to obtain the required time delay, use the following formula:

$$R_T = \frac{(T_{REQ} - T_{MIN})}{T_{MAX} - T_{MIN}} \times 1,000,000 \text{ ohms}$$

**Accuracy** —

Repeat Accuracy —  $\pm 1\%$   
Overall Accuracy —  $\pm 2\%$  at  $R = 1 \text{ megohm}$

**Reset Time** — 100 ms, max., before time-out; 10 ms, max., after time-out.

### Output Switch Data

**Arrangement** — Solid state 1 Form A (SPST-NO)

**Rating** — 1A, inductive, at nominal operating voltage.

**Expected Electrical Life** — 10,000,000 operations at rated load.

**Initial Dielectric Strength** — Between Terminals and Mounting — 3,000VAC rms.  
Between Input and Output — 1,500VAC rms.

### Input Data @ 25°C

**Voltage** — 12 VAC/VDC, 24VAC/VDC, 120 VAC/VDC.

**Power Requirement** — 3W max.

**Transient Protection** —

Non-repetitive transients of the following magnitudes will not cause spurious operation of affect function and accuracy.

| Operating Voltage | <0.1 ms | <1 ms   |
|-------------------|---------|---------|
| 12, 24 VAC/VDC    | 860V*   | 208V*   |
| 120 VAC/VDC       | 2,580V  | 2,150V* |

\* Min. source impedance of 100 ohm.

### Environmental Data

**Temperature Range** —

Storage —  $-40^\circ\text{C}$  to  $+85^\circ\text{C}$

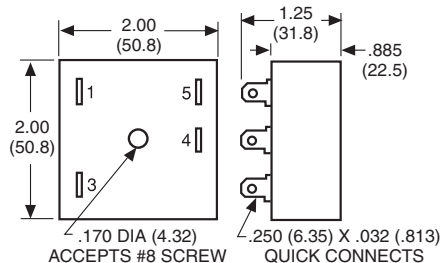
Operating —  $-40^\circ\text{C}$  to  $+65^\circ\text{C}$

### Mechanical Data

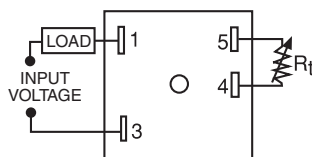
**Mounting** — Panel mount with one #8 screw.

**Termination** — 0.250 in (6.35) quick connect terminals.

**Weight** — 3 oz. (84g) approximately



Outline Dimensions



Wiring Diagram

An external resistance of 1 megohm is required to obtain the maximum time for all ranges. To determine the actual resistance needed to obtain the required time delay, use the following formula:

$$R_T = \frac{(T_{REQ} - T_{MIN})}{T_{MAX} - T_{MIN}} \times 1,000,000 \text{ ohms}$$

### Ordering Information

**VTM1**

Series VTM1  
On-Delay  
Timing Module

**A**

Input Voltage  
A = 120VAC/VDC  
E = 24VAC/VDC  
Q = 12VAC/VDC

**CD**

Time Range  
CD = 0.5 - 10 sec.  
DD = 3 - 60 sec.  
FD = 0.5 - 10 min.  
GD = 3 - 60 min.

Users should thoroughly review the technical data before selecting a product part number. It is recommended that user also seek out the pertinent approvals files of the agencies/laboratories and review them to ensure the product meets the requirements for a given application.

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