

VTM2 Series, Off-Delay, Timing Module



Product Facts

- Off-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 — Off-Delay

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

Timing Adjustment — External resistor. 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:

$$R_T = \left(\left(\frac{T_{REQ} - T_{MIN}}{T_{MAX} - T_{MIN}} \right) \times 1,000,000 \right) + 5000 \text{ ohms}$$

Accuracy

Repeat Accuracy — ±0.5% +8ms max (0.25% typical) at constant temperature for load of 10mA to 1A

Maximum Time: ±2% at $R_T = 1 \text{ meg ohms}$

Minimum Time: +0%, -30% at $R_T = 0 \text{ ohms}$

Reset Time — 300 ms, max.

Output Switch Data

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

Rating — 1A steady state

Expected Electrical Life — 100,000,000 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

Line voltage with high inductive voltage noise could affect timer performance. Adding transorb or MOV at noise source is recommended.

Example: Contactor coils, motor

Voltage (±10%) — 12 VAC/VDC, 24VAC/VDC, 120 VAC

Power Requirement — 4.3VA 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	2,580V	2,150V*

* Min. source impedance of 100 ohm.

Environmental Data

Temperature Range —

Storage — -40°C to +85°C

Operating — -40°C to +60°C

Humidity — 95% relative

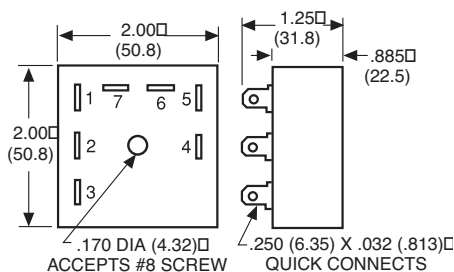
Mechanical Data

Mounting — Panel mount with one #8 screw.

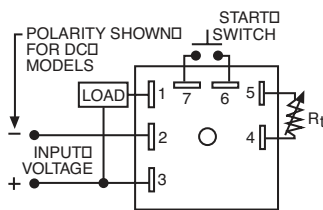
Termination — 0.250 in (6.35) quick connect terminals.

Weight — 4 oz. (112g) approximately

Note: Please check the weight and update accordingly.



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, for time between max and min times:

$$R_T = \left(\left(\frac{T_{REQ} - T_{MIN}}{T_{MAX} - T_{MIN}} \right) \times 1,000,000 \right) + 5000 \text{ ohms}$$

Note: Due to component tolerances, actual time obtained will normally be within 5% of desired time.

Ordering Information

VTM2	A	CD
Series VTM2	Input Voltage	Time Range
Off-Delay	A = 120VAC	CD = 0.5 - 10 sec.
Timing Module	E = 24VAC/VDC	DD = 3 - 60 sec.
	Q = 12VAC/VDC	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.

Authorized distributors are likely to stock the following:
None at present.

12

Specialty Relays