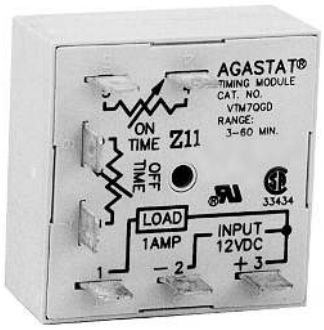
VTM7 Series, Repeat Cycle, Timing Module



Product Facts

- **Repeat cycle timing mode**
- **Independently adjustable On and Off times**
- **Reliable solid state timing circuitry**
- **Excellent transient protection**
- **Compact design**
- **Flame retardant, solvent resistant housing**
- **File E60363, File LR33434**

Timing Specifications

Timing Mode — Repeat Cycle

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:

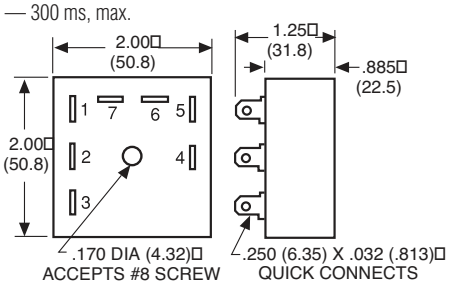
$$R_T = \left(\left(\frac{(T_{REQ} - T_{MIN})}{T_{MAX} - T_{MIN}} \times 1{,}000{,}000 \right) + 5000 \right) \text{ohms}$$

Accuracy —
Maximum Time: ±2% at Rt = 1 Megohms

Minimum Time: +0%, -30% Rt = ohms

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

Reset Time — 300 ms, max.



Outline Dimensions

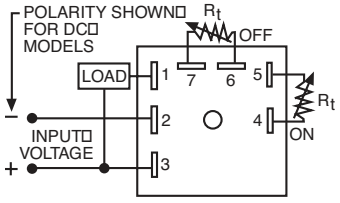
Output Switch Data

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.



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 time:

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

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

Input Data @ 25°C

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

Power Requirement — 4.3 VA with rated load

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

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

Example: Contactor coils, motor

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

* Min. source impedance of 100 ohms.

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

Ordering Information

VTM7	A	CD
Series VTM7	**Input Voltage**	**Time Range**
Repeat Cycle	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.