

1-10 TIME DELAY RELAYS

Delay On Make (Alarm Output)

Q1F Alarm Series

FEATURES

- 100% functionally tested
- Time delays to 10 hours standard
- Loud audio alarm for use in noisy environments
- Solid state digital timing
- 20:1 maximum to minimum timing ratio
- Low cost
- Compact size
- Superior transient protection
- Flame-retardant and solvent-resistant polyester thermoplastic housing
- File #E165149

The Q1F Delay to Alarm Cube Timer is intended for use as a Delay On Make audible alarm.

Operating Logic: Upon application of the input voltage, the time delay starts. At the end of the preset time delay the audible alarm is activated. Reset is accomplished by removing input voltage.

Note: 1) Remote potentiometer leads should be shielded when running close to other wires; 2) The minimum time setting on external resistor-adjustable time delay relays is obtained by shorting together the external resistor terminals of the relay; 3) The maximum time setting within tolerance limits is obtained by using a 1 megohm resistor; 4) Timing values between the minimum and maximum limits are linear with resistance within 10%; 5) Recommend 1/4 W minimum resistor be used.

LOGIC FUNCTION DIAGRAM



Delay On Make Function

SPECIFICATIONS

TIME DELAY

Adjustment: External resistor, factory fixed on special order (min. order requirement)
Range: 50 ms to 10 hours in 9 ranges
Repeatability: ±.5% +8 ms max. (0.25% typical) at constant temperature
Accuracy: Max. +0%, -30% at Rt = 0 ohm
Reset Time:
 During Timing: 300 ms
 After Timeout: 150 ms

INPUT

Operating Voltage: 120 or 240 VAC ±10%
Frequency: 50/60 Hz

OUTPUT

Type: Solid state Piezo Audio Alarm
Alarm Frequency: 3.15 kHz ±0.5 kHz
Sound Pressure Level: 76 dB at 1 meter
Life: 10,000,000 operations

PROTECTION

Transient Voltage: Metal oxide varistor
Dielectric Breakdown: 3000 VAC, RMS, terminals to mounting
Insulation Resistance: 100 megohms min. between terminals and case

MECHANICAL

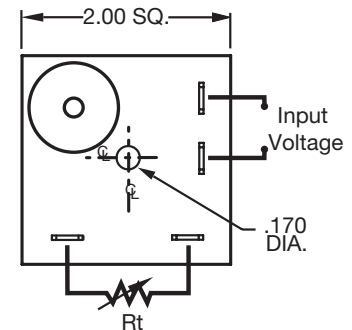
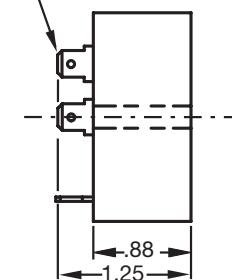
Termination: .25" x .032" male fast-on terminals
Mounting: Surface mount with one #8 screw

ENVIRONMENTAL

Storage Temperature: -40°C to 75°C
Operating Temperature: 0°C to 65°C
Humidity: 95% relative



.25 X .032 MALE FAST-ON TERMINALS (5 PL.)



ORDERING INFORMATION

TIME RANGE	120 VAC 50/60 Hz	240 VAC 50/60 Hz
.05 to 1 sec.	—	Q1F-00001-3A5
.25 to 5 sec.	—	Q1F-00005-3A5
.5 to 10 sec.	—	Q1F-00010-3A5
3 to 60 sec.	Q1F-00060-3A1	Q1F-00060-3A5
15 to 300 sec.	—	Q1F-00300-3A5
30 to 600 sec.	—	Q1F-00600-3A5
180 to 3600 sec.	Q1F-03600-3A1	Q1F-03600-3A5
.25 to 5 hrs.	Q1F-18000-3A1	Q1F-18000-3A5
.5 to 10 hrs.	Q1F-36000-3A1	Q1F-36000-3A5

Optional Potentiometer: Part Number ASY-0001M-450

External Resistance/Time Delay Relationship

1 megohm external resistance 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:

$$R_t = \frac{\text{Required} - \text{Tminimum}}{\text{Tmaximum} - \text{Tminimum}} \times 1,000,000 \text{ ohms}$$

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

Consult factory for any special requirements not listed in catalog (minimum order requirement may apply).