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## FEATURES

- C/MOS Digital Circuitry
- Time Delays To 1000 Minutes
- No First Cycle Effect
- Fully Solid State And Encapsulated
- 0.5% Repeat Accuracy
- Seven Different Modes Of Operation
- Output Rated at 1 Ampere Continuous, 10 Amperes Inrush
- Fixed, Local Or Externally Adjustable Time Delays
- Small Size
- UL/cUL Recognized

## SPECIFICATIONS

### 1. Time Delay.

- 1.1 Type: C/MOS digital circuitry
- 1.2 Range: From 0.05 seconds to 1000 minutes.  
Fixed delays available (see time delay chart)
- 1.3 Repeat accuracy:  $\pm 0.5\%$  under fixed conditions
- 1.4 Setting accuracy:  $\pm 10\%$
- 1.5 Reset time: 50 milliseconds maximum
- 1.6 Recycle time: 100 milliseconds during timing,  
50 milliseconds after timing
- 1.7 Time delay vs. voltage and temperature:  $\pm 2\%$

### 2. Input.

- 2.1 Operating voltage: 24, 120 & 230 VAC, 12 & 24/28 VDC
- 2.2 Tolerance:  $\pm 20\%$  of nominal
- 2.3 Frequency: 50 - 60 Hertz

### 3. Output.

- 3.1 Type: Solid state
- 3.2 Form: SPST
- 3.3 Rating: 1 amp steady state, (10 amp inrush, 20 mA. min.)
- 3.4 Life: 100,000,000 operations minimum under full load

### 4. Protection.

- 4.1 Transient:  $\pm 1500$  volts for 150 microseconds
- 4.2 Polarity: DC units are reverse polarity protected
- 4.3 Dielectric breakdown: 1500 volts RMS minimum

### 5. Mechanical.

- 5.1 Mounting: One #8 or #10 screw
- 5.2 Termination: 1/4" quick connect terminals
- 5.3 Style: Surface mount encapsulated

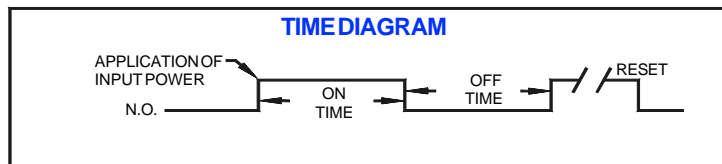
### 6. Environmental.

- 6.1 Operating temperature:  $-20^{\circ}\text{C}$  to  $+80^{\circ}\text{C}$
- 6.2 Storage temperature:  $-30^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$
- 6.3 Humidity: 95% relative non-condensing

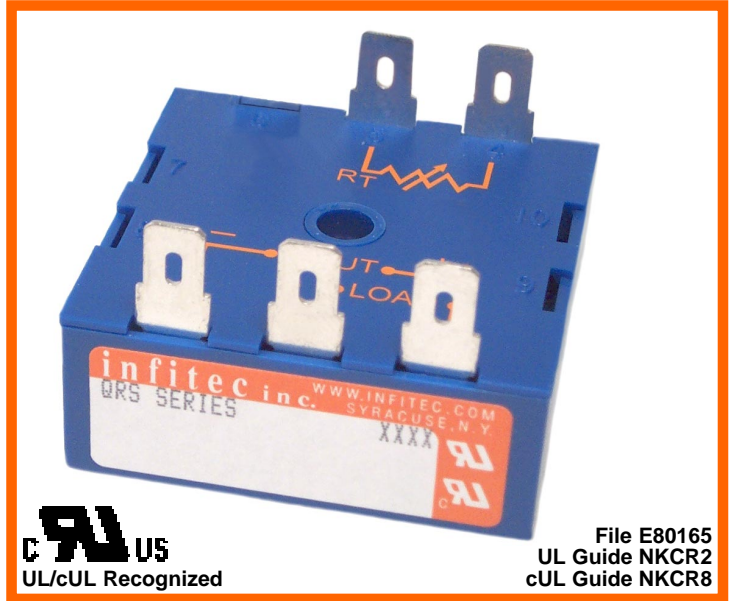
## MODE OF OPERATION

### ON/OFFRECYCLE

Upon application of power to the input terminals, the **ON** delay begins and the output contact transfers. Upon completion of the **ON** delay, the output contact reverts back to its original position and the **OFF** delay begins. Upon completion of the **OFF** delay, the output contact again transfers and the cycle repeats. Reset is accomplished by removal of input power.



## QRS SERIES DIGITAL ENCAPSULATED RECYCLING TIME DELAY MODULE

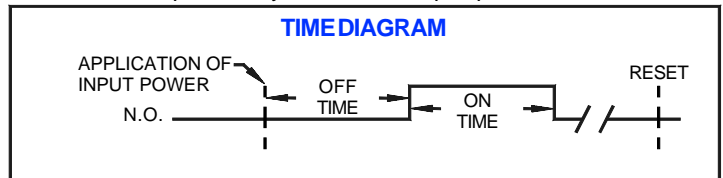


**UL/cUL Recognized**

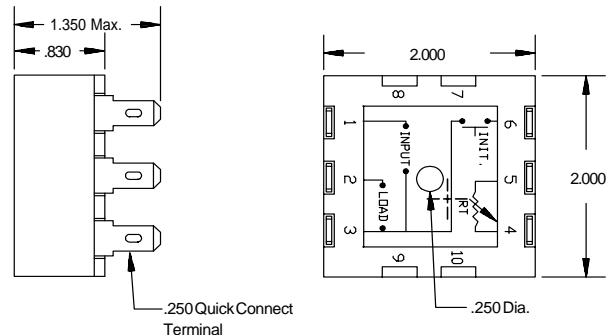
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### OFF/ONRECYCLE

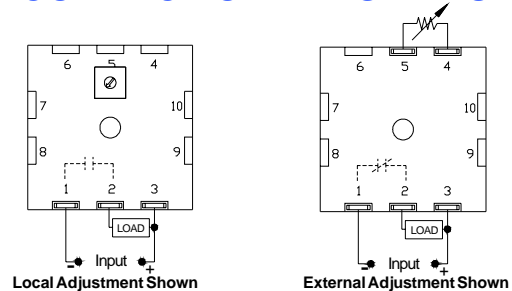
Upon application of power to the input terminals, the **OFF** delay begins. Upon completion of the **OFF** delay, the output contact transfers and the **ON** delay begins. Upon completion of the **ON** delay, the output contact reverts to its original position and the cycle repeats. Reset is accomplished by removal of input power.



## DIMENSIONS



## CONNECTION DIAGRAMS



## ORDERING INFORMATION

SERIES	INPUT VOLTAGE	ADJUSTMENT	CYCLE	TIME DELAY
QRS	1 - 12 VDC 2 - 24/28 VDC 4 - 24 VAC 5 - 120 VAC 6 - 230 VAC	0 - Local Adjust 1 - Fixed 2 - External Adjust	1 - On Time First 2 - Off Time First	See Time Delay Range Chart