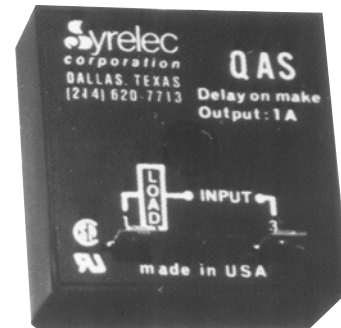
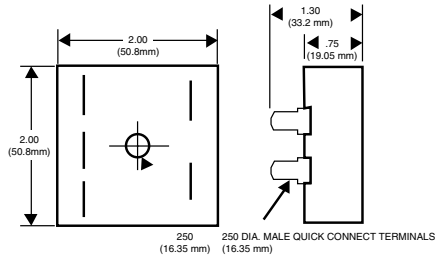


# GENERAL DETAILS OF TYPE Q TIMERS

Q series timers are compact, low cost, precision devices designed to the most demanding specifications. The small size, epoxy filled case is highly resistant against dust, vibrations, shock and humidity. Creep and strike distance according to VDE 0110 Group C 250V. Case protection IP66. Case material - Phenolic.

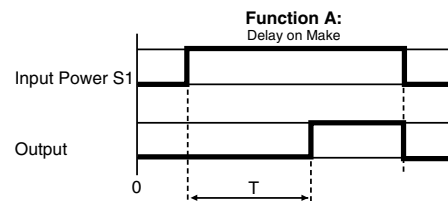
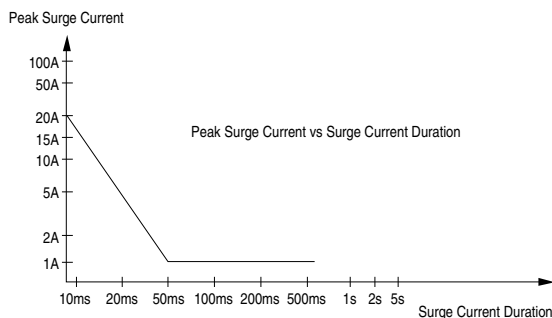


# QAS SERIES DELAY ON MAKE ELECTRONIC TIMER

UL listed CSA recognized

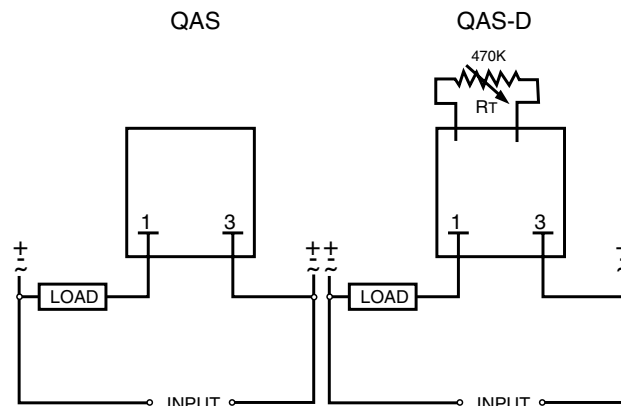
## SPECIFICATIONS:

|                               |                                                           |
|-------------------------------|-----------------------------------------------------------|
| Input Power                   | 24 VAC/DC, 110 VAC/DC<br>220 VAC/DC $\pm 15\%$ , 50/60 Hz |
| Output Rating                 | max.: 1.0 A at 20°C<br>min.: 10 mA                        |
| Voltage drop after timing     | 3.5 VAC/DC                                                |
| Repetition accuracy           | $\pm 0.5\%$ at a constant ambient                         |
| Temp rise derating            | 5 mA / °C                                                 |
| Reset time SAS & SAS-D        | 25 ms after timing<br>50 ms during timing                 |
| Leakage current during timing | 5 mA max                                                  |
| Peak surge current            | 20 A < 10 ms                                              |
| Peak surge voltage            | 1400 V, 10 $\mu$ s                                        |
| Terminals                     | 1/4" (6.35mm) quick connect                               |
| Operating temperature         | -22°F to +140°F (-30°C to +60°C)                          |
| Weight                        | 1.9 oz. (55g)                                             |



Function A: When input power is applied, timing (t) begins. At the end of the preselected time, the solid state SCR output turns on. The output turns off when the input power is removed, resetting the timer for the next cycle.

## WIRING DIAGRAM:



Note: Available with internal potentiometer in AS-P Series

## ORDERING INFORMATION: (100 pcs. minimum)

P.S.: Specify maximum time for "D" and "P" version.

| Q                | AS-D                                                                            | 100S                                                                                                                          | 220 AD                                                       | L     |
|------------------|---------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|-------|
| MOUNTING         | SERIES                                                                          | TIME RANGE                                                                                                                    | INPUT POWER                                                  | UL    |
| Q = Encapsulated | AS = fixed time<br>AS-D = remote potentiometer<br>AS-P = internal potentiometer | AS = Fixed .1 sec - 120 min<br>AS-D = .1 sec - 60 min. 10:1 Ratio<br>AS-P = .1 sec - 10 sec<br>1-100 sec maintain 100:1 ratio | 24AD = 24 VAC/DC<br>110AD = 110 VAC/DC<br>220AD = 220 VAC/DC | 1 AMP |

Products and specifications subject to change without notice.

# QBS SERIES

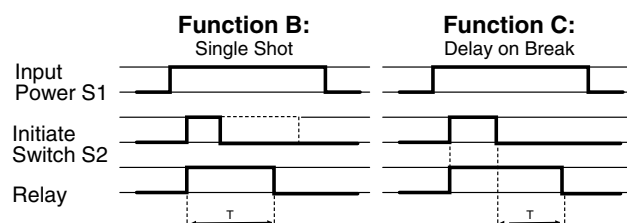
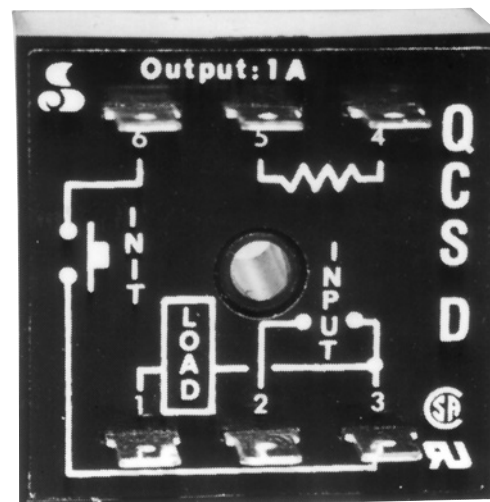
## SINGLE SHOT TIMER

# QCS SERIES

## DELAY ON BREAK TIMER

UL listed CSA recognized

- **CMOS Technology**
- **Epoxy Encapsulated**
- **2" x 2" Compact Size**
- **.250" Quick Connect Terminals**



**Function B:** Input power (S1) is continuously supplied to the timer. When an external initiate switch (S2) is closed, momentarily or maintained, the output relay is energized. At the end of the delay time (T), the output is de-energized. The timer is ready for another cycle. Isolate the initiate switch (S2) from other circuits.

**Function C:** Input power (S1) is continuously supplied to the timer. When an external initiate switch (S2) is closed, the output relay is energized. Timing begins when the S2 switch opens. At the end of the delay time (T), the output is de-energized and the timer is ready for another cycle. Isolate the initiate switch (S2) from other circuits.

### SPECIFICATIONS:

|                               |                                                                        |
|-------------------------------|------------------------------------------------------------------------|
| Input                         | 24 VAC, 48 VAC, 110 VAC<br>220 VAC, $\pm 15\%$ , 50/60 Hz              |
| Maximum power consumption     | 24 VAC: 0.2 VA<br>48 VAC: 0.3 VA<br>110 VAC: 0.6 VA<br>220 VAC: 1.2 VA |
| Output                        | SCR                                                                    |
| Output Rating                 | max.: 1A at 20°C<br>min.: 10 mA                                        |
| Voltage drop after timing     | 3.5 V max. AC                                                          |
| Repetition accuracy           | $\pm 0.5\%$ at a constant ambient                                      |
| Temp. rise derating           | 5 mA / °C                                                              |
| Reset time                    | 80 ms                                                                  |
| Minimum contact closure       | 100 ms during timing                                                   |
| Leakage current during timing | 5 mA max.                                                              |
| Peak surge current            | 20 A < 10 ms                                                           |
| Peak surge voltage            | 1400 V, 100 $\mu$ s                                                    |
| Terminals                     | 1/4" (6.35) quick connect                                              |
| Operating temperature         | -22°F to +140°F    -30°C to +60°C                                      |
| Weight                        | 1.9 oz. (55g)                                                          |

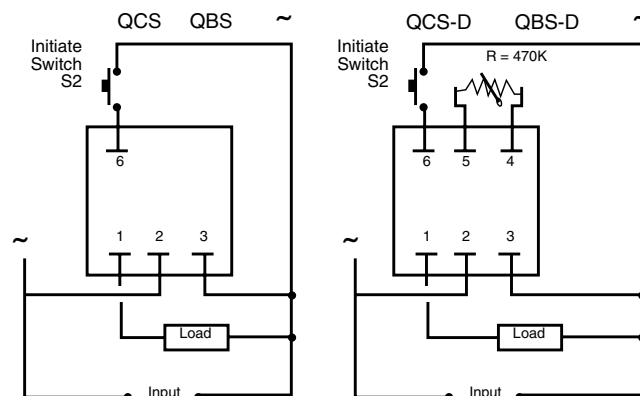
The initiate switch should be isolated from the other circuits. Contact will operate on the same supply as the timer and will have a max. load of 5 mA.

The remote potentiometer for the QCS-D and QBS-D should be 470 k $\Omega$ , 1/4 W. Use with shielded cable at a maximum length of 50 feet.

### ORDERING INFORMATION: (100 pcs. minimum)

| Q<br>MOUNTING    | CS<br>SERIES                                                                                                                                                       | B<br>TIME RANGE                                                                                                                                                                  | 110A<br>INPUT POWER                                              | L<br>UL |
|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|---------|
| Q = Encapsulated | CS = Fixed time<br>BS = Fixed time<br>CS-D = Remote potentiometer<br>BS-D = Remote potentiometer<br>CS-P = Internal potentiometer<br>BS-P = Internal potentiometer | CS/BS = Fixed time<br>CS-D = .06 sec. - 120 min<br>BS-D = .06 sec. - 120 min. maintain 10:1 ratio<br>B or CSP = .1 - 10 sec. or min<br>1 - 100 sec. or min. maintain 100:1 ratio | 24A = 24 VAC<br>48A = 48 VAC<br>110A = 110 VAC<br>220A = 220 VAC | 1 AMP   |

### WIRING DIAGRAM:



**NOTE:** Available with internal potentiometer in B or CS-P Series.

**DIMENSIONS** See page 4-34

# QDS SERIES

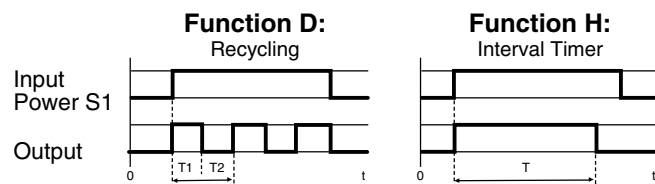
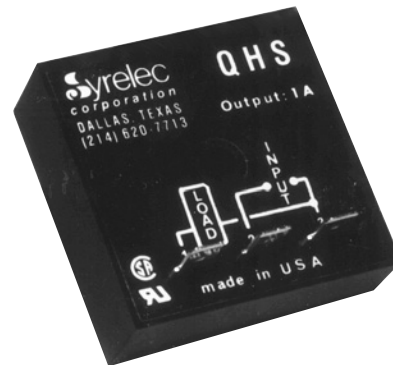
## REPEAT CYCLE

# QHS SERIES

## INTERVAL ELECTRONIC TIMER

UL listed CSA recognized

- Consistent Repeat Cycle
- Multiple Voltage
- 2" Square Cases
- Fixed and Variable Time Ranges



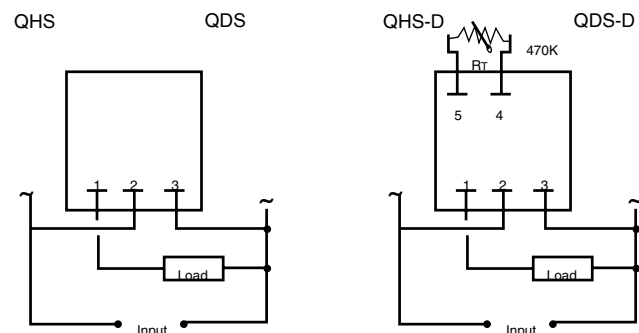
**Function H:** The solid state output turns on when the input power (S1) is applied. The output turns off at the end of time (T). The timer is reset when the input power is removed.

**Function D:** When input power (S1) is applied, the solid state output turns on immediately for the time period specified. It then turns OFF for that same time period and repeats continuously while power is applied.

### SPECIFICATIONS:

|                               |                                                                        |
|-------------------------------|------------------------------------------------------------------------|
| Input                         | 24 VAC, 48 VAC, 110 VAC<br>220 VAC, $\pm 15\%$ , 50/60 Hz              |
| Maximum power consumption     | 24 VAC: 0.2 VA<br>48 VAC: 0.3 VA<br>110 VAC: 0.6 VA<br>220 VAC: 1.2 VA |
| Output                        | SCR                                                                    |
| Output Rating                 | max.: 1 A at 20°C<br>min.: 10 mA                                       |
| Voltage drop after timing     | 3.5 VAC                                                                |
| Repetition accuracy           | $\pm 0.5\%$ at a constant ambient                                      |
| Temp. rise derating           | 5 mA / °C                                                              |
| Reset time                    | 100 ms after timing<br>150 ms during timing                            |
| Minimum contact closure       | 100 ms during timing                                                   |
| Leakage current during timing | 2 mA max.                                                              |
| Peak surge current            | 20 A < 10 ms                                                           |
| Peak surge voltage            | 1400 V, 100 $\mu$ s                                                    |
| Terminals                     | Faston 1/4" (6.35)                                                     |
| Operating temperature         | -22°F to +140°F -30°C to +60°C                                         |
| Weight                        | 1.9 oz. (55g)                                                          |

### WIRING DIAGRAM:



**NOTE:** Available with internal potentiometer in HS-P Series.

**DIMENSIONS** See page 4-34

### ORDERING INFORMATION: (100 pcs. minimum)

| Q<br>MOUNTING    | DS<br>SERIES                                                                                                                                                       | 10 min<br>TIME RANGE                                                                                                                                            | 24A<br>INPUT POWER                                               | L<br>UL |
|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|---------|
| Q = Encapsulated | DS = Fixed time<br>DS-D = Remote potentiometer<br>HS = Fixed time<br>HS-D = Remote potentiometer<br>DS-P = Internal potentiometer<br>HS-P = Internal potentiometer | DS/HS = Fixed .1s - 120 min.<br>DS-D/HS-D = .1 sec - 120 min. maintaining 10:1 ratio<br>DS-P/HS-P = .1-10 sec or min<br>1-100 sec. or min. maintain 100:1 ratio | 24A = 24 VAC<br>48A = 48 VAC<br>110A = 110 VAC<br>220A = 220 VAC | 1 AMP   |

Products and specifications subject to change without notice.

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