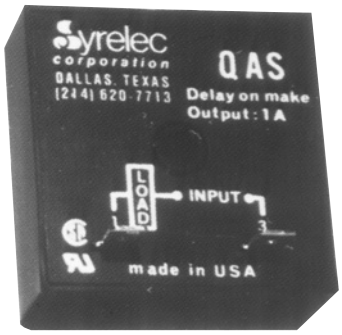
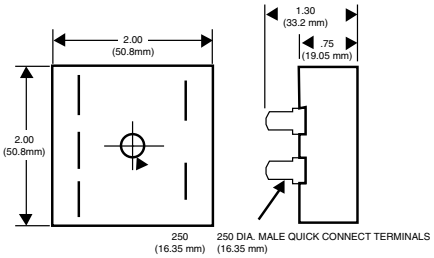
GENERAL DETAILS OF TYPE Q TIMERS

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.



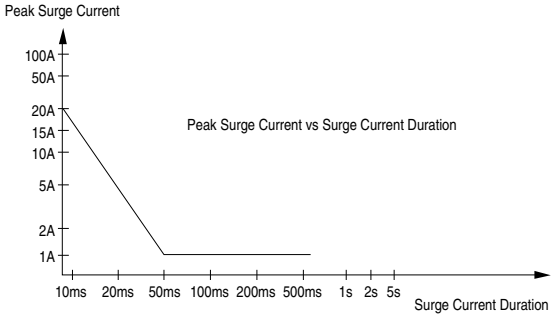


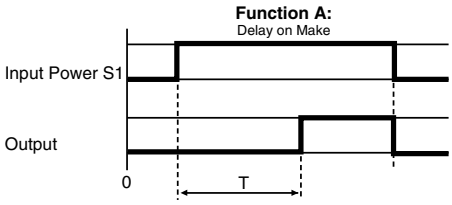
QAS SERIES
DELAY ON MAKE ELECTRONIC TIMER

UL listed CSA recognized

SPECIFICATIONS:

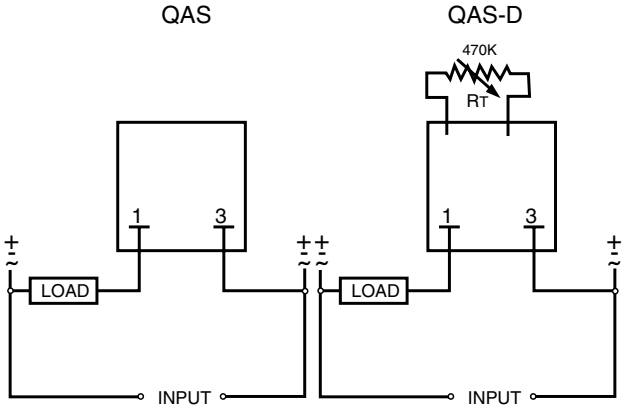
Input Power	24 VAC/DC, 110 VAC/DC 220 VAC/DC ±15%, 50/60 Hz
Output Rating	max.: 1.0 A at 20°C min.: 10 mA
Voltage drop after timing	3.5 VAC/DC
Repetition accuracy	±0.5% at a constant ambient
Temp rise derating	5 mA / °C
Reset time SAS & SAS-D	25 ms after timing 50 ms during timing
Leakage current during timing	5 mA max
Peak surge current	20 A < 10 ms
Peak surge voltage	1400 V, 10 µs
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)

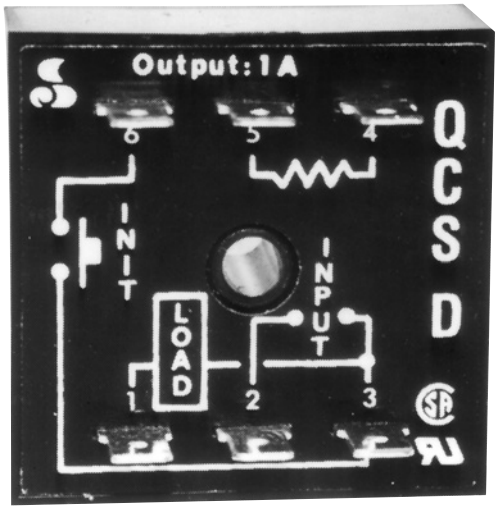
P.S.: Specify maximum time for "D" and "P" version.

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

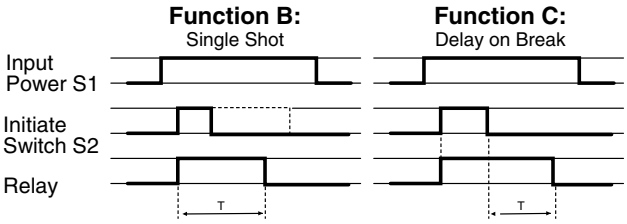
QBS SERIES
SINGLE SHOT TIMER

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.

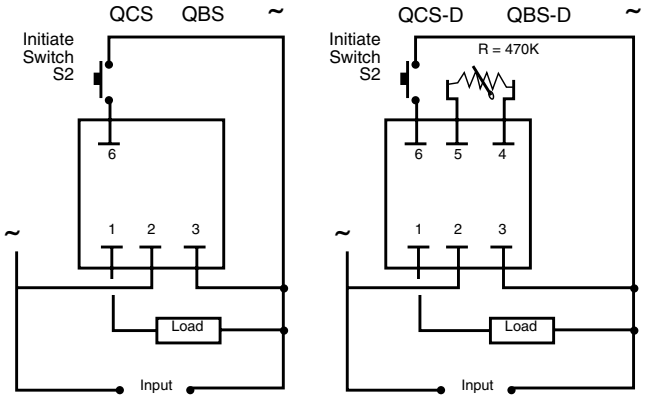
SPECIFICATIONS:

Input	24 VAC, 48 VAC, 110 VAC 220 VAC, ±15%, 50/60 Hz
Maximum power consumption	24 VAC: 0.2 VA 48 VAC: 0.3 VA 110 VAC: 0.6 VA 220 VAC: 1.2 VA
Output	SCR
Output Rating	max.: 1A at 20°C min.: 10 mA
Voltage drop after timing	3.5 V max. AC
Repetition accuracy	±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 µs
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 kΩ, 1/4 W. Use with shielded cable at a maximum length of 50 feet.

WIRING DIAGRAM:



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

DIMENSIONS See page 4-34

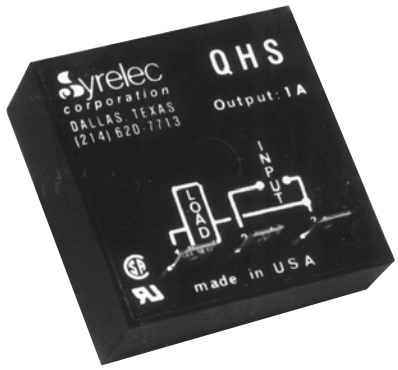
ORDERING INFORMATION: (100 pcs. minimum)

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

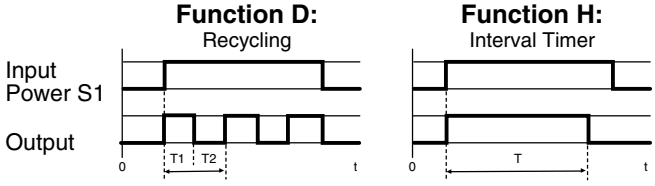
QDS SERIES
REPEAT CYCLE

QHS SERIES
INTERVAL ELECTRONIC TIMER

UL listed CSA recognized



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



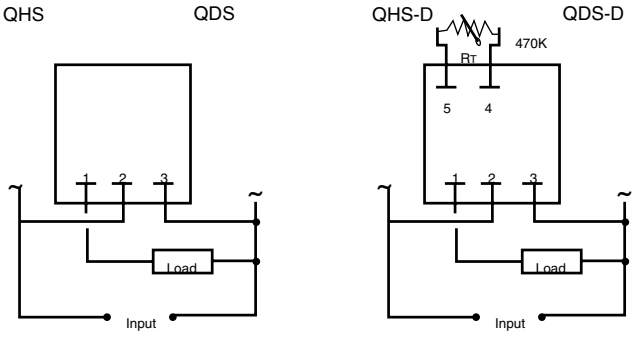
Function H: The solid state output turns on when the input power (S1) is applied. The output turns off at the end of time (T). The timer is reset when the input power is removed.

Function D: When input power (S1) is applied, the sold 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 220 VAC, ±15%, 50/60 Hz
Maximum power consumption	24 VAC: 0.2 VA 48 VAC: 0.3 VA 110 VAC: 0.6 VA 220 VAC: 1.2 VA
Output	SCR
Output Rating	max.: 1 A at 20°C min.: 10 mA
Voltage drop after timing	3.5 VAC
Repetition accuracy	±0.5% at a constant ambient
Temp. rise derating	5 mA / °C
Reset time	100 ms after timing 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 µs
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	DS	10 min	24A	L
MOUNTING	SERIES	TIME RANGE	INPUT POWER	UL

1 AMP

Q = Encapsulated

DS = Fixed time
DS-D = Remote potentiometer
HS = Fixed time
HS-D = Remote potentiometer
DS-P = Internal potentiometer
HS-P = Internal potentiometer

DS/HS = Fixed .1s - 120 min.
DS-D/HS-D = .1 sec - 120 min. maintaining 10:1 ratio
DS-P/HS-P = .1-10 sec or min
1-100 sec. or min. maintain 100:1 ratio

24A = 24 VAC
48A = 48 VAC
110A = 110 VAC
220A = 220 VAC