

Product Features



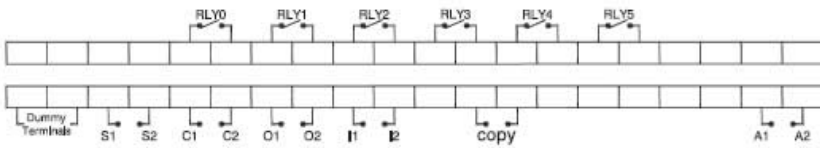
- Suitable for screw mounting(except ST4-M1).
- 7 segment display indication for channel and timing operation (except ST-4M1).
- User friendly programming for ON/OFF time selection independently (except ST-4M1).
- Hold /Restart feature is available during power failure, Over voltage protection(except ST-4M1).
- ST-6M1 / ST-10M2 / ST-10M1 : pulse start signal.
- ST-15M2 / ST-4M1 : continuous start signal.
- S1D-C8M3 : Comprises of 8 Relays and each relay can be programmed for maximum of 8 switchings in a cycle.
- Application: Bag filters, Dust collectors, Water treatment plants etc.

Specifications

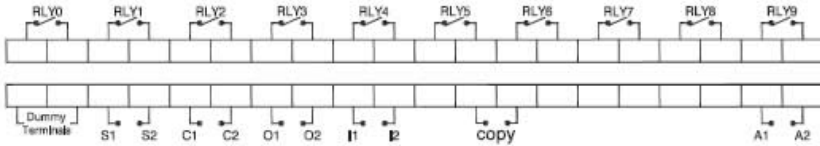
Model	ST6-M1	ST10-M1	ST10-M2
Function	Sequential timer with 6 channels		Sequential timer with 10 channels
Rated supply voltage	85V to 270V AC, 85V DC to 270V DC		
Operating voltage range	85V to 270V AC, 85V DC to 270V DC		
Differential pressure signal (DP1, DP2)	N.A		
Rated frequency	50 / 60Hz \pm 5%		
Power consumption	AC approx.15VA / 3W		
No. of output	6 - Rly0 to Rly5	10 - Rly0 to Rly9	10 - OP0 to OP9
Control relay output	NO relay contacts rated for 10A@250V AC / 28V DC resistive load		Triac outputs rated for 500mA@250V AC resistive load
Start signal (S1, S2)	Potential free closure signal for minimum 150msec	Potential free closure signal for minimum 120msec	Potential free closure signal for minimum 150msec
Conduction time (O1, O2)	>150msec	>120msec	N.A
Time range	On time: 0.10secs to 99hrs 59min. Off time: 0.10secs to 99hrs 59min.		On time: 0.01secs to 99hrs 59min. Off time: 0.01secs to 99hrs 59min
Range selection	Range Minimum Maximum S/S 00s : 10ms 59s : 99ms M/S 00m : 01s 59m : 59s H/M 00h : 01m 99h : 59m		Range Minimum Maximum S/S 00s : 01ms 59s : 99ms M/S 00m : 01s 59m : 59s H/M 00h : 01m 99h : 59m
Setting accuracy	\pm 0.1% max w.r.t setting \pm 50msec		\pm 0.2% max w.r.t setting \pm 20msec
Repeat accuracy	\pm 0.05% max. \pm 50msec		\pm 0.3% max. \pm 20msec
Recovery time	2sec minimum		2sec minimum
Variation due to voltage change	\pm 1% max \pm 50msec		\pm 1% max \pm 50msec
Variation due to temp. change	\pm 2% max \pm 50msec		\pm 2% max \pm 50msec
Variation due to frequency change	\pm 1% max \pm 50msec		\pm 1% max \pm 50msec
Ambient temperature	Operation: -10°C to +55°C, Storage: -25°C to 80°C		
Humidity	Max. 85% RH @ 40°C		
Service life (under no load)	10 ⁶ operations minimum		N.A
Electrical life (under full load)	10 ⁵ operations minimum		
Rated frequency of operation	1800 \pm 5% operations per hour maximum		
Insulation resistance	>100Mohms @ 500V DC		
Di-electrical strength	2.5KV AC, 50Hz for 1minute. (Between current carrying and non-current carrying parts). 1.5KV AC, 50Hz for 1minute. (Between contacts and control circuit). 750VAC, 50Hz for 1minute. (Between non-continuous contacts of the relay).		N.A
Electrical connection	Screw type terminals with self lifting clamps		
Dimension (over-all)	200 x 130 x 45mm (W x H x D)		

Connections

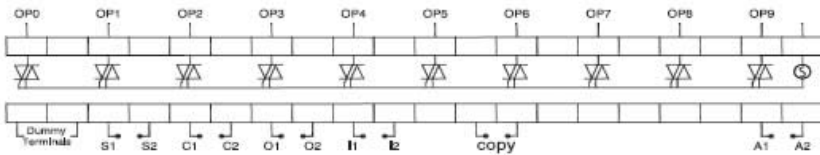
ST6-M1 Sequential Timer



ST-10M1 Sequential Timer

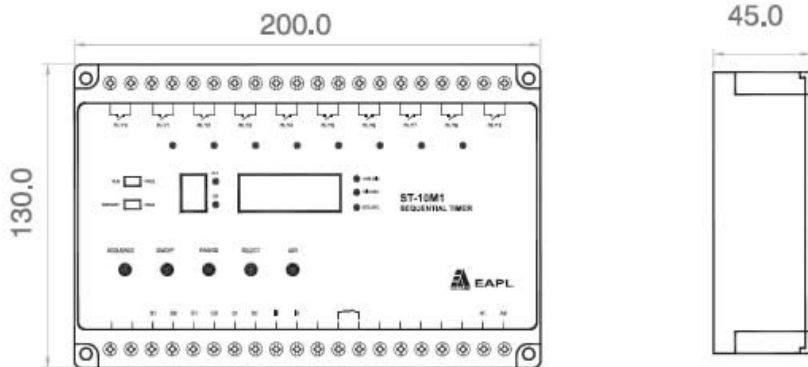


ST-10M2 Sequential Timer



- A1 & A2 : Source
- S1 & S2 : Start signal
- C1 & C2 : Single Cycle (Short)
Repeat Cycle (Open)
- O1 & O2 : Cycle Complete Output
(for cascading)
- I1 & I2 : Inhibit / Pause
- RLY0 to RLY5 : Control Output for ST6-M1
- RLY0 to RLY9 : Control Output for ST10-M1
- Op0 to Op9 : Control Output for ST10-M2
- ⊕ : Common input terminal for all triac (for ST10-M2)
- Copy : Terminals when shorted will copy the first relay / triac On and Off time for all the remaining relays / triacs

Dimensions



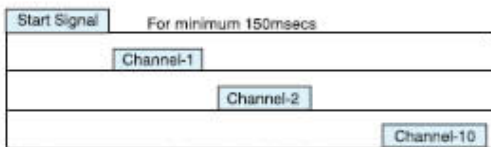
Note: Please refer page no.20 for ST6-M1 (IP),ST10-M1 (IP),ST10-M2 (IP) dimension

Note: All Dimensions are in mm.

Timing Diagram

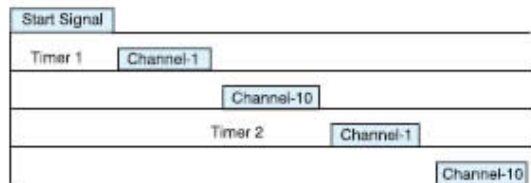
ST6-M1, ST10-M1 & ST10-M2

a) Single Cycle Mode (C1-C2 Shorted)



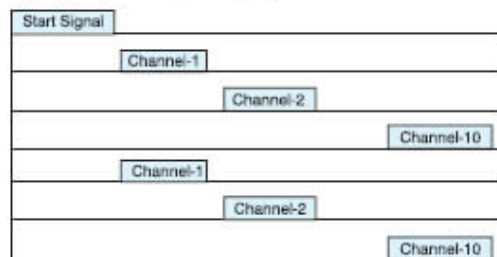
After last programmed channel, waits for fresh start signal

c) Cascade Mode



After last channel of first timer, moves automatically to first channel of the next timer

b) Repeat Cycle Mode (C1-C2 open)



After last channel the cycle repeats

Hints On Correct Use

- **Output from triac is possible only for AC supply.**

Caution

- Do not apply any voltage across S1 & S2, DP1 & DP2.
 - Do not shift HOLD / RESTART slide switch when the timer is in operation.
 - Application of voltage other than the specified one, will permanently damage the timer.
 - Use 2.5mm² U-type lugs with sleeve.
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