

22.5mm DIN RAIL TIMERS

800 Series

- Slim, space saving design
- Din rail / screw mounting
- Finger guards for safety
- Wide range of models

22.5mm DIN RAIL TIMERS

800 Series



NEW 800XU



NEW 800XA



800M



800S



NEW 800XC



NEW 800XMR



NEW 800POD



NEW 800SQ-A



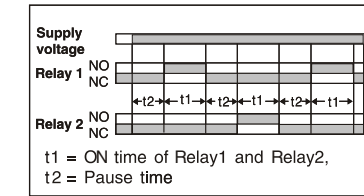
800SD-2

Description	2 functions, 12 ranges universal voltage	2 functions, 8 ranges universal voltage (economical)	2 functions, 12 ranges	Lowest cost, single range, single function	Cyclic with unequal ON time & OFF time	Forward-pause-reverse	True power OFF delay timer	Low cost, 8 ranges, dual voltage	Star delta timer
Modes ¹	ON delay / Interval	ON delay / Interval	ON delay / Interval	ON: ON delay	Cyclic ON first or OFF first	Forward-pause-reverse	True power OFF delay	ON delay / Interval (factory set)	Star-Delta
Time Ranges	1 / 3 / 10 / 30 sec / min / hr	3 / 10 / 30 / 60 sec / min	1 / 3 / 10 / 30 sec / min / hr	30S: 30 sec, 60S: 60 sec (factory set)	1 / 10 sec / min / hr for both ON & OFF time	1 / 2 / 4 / 8 min (ON time) 10 / 20 / 40 / 80 sec (pause time)	60: 60 sec, 180: 180 sec (factory set)	3 / 10 / 30 / 60 sec / min (factory set)	Runup time range: 30/60 sec Change Over: 50/100 msec
Accuracy	Setting: ± 5% of F.S. ; Repeat: ±0.5% or 50 ms	Setting: ± 5% of F.S. ; Repeat: ±0.5% or 50 ms	Setting: ± 5% of F.S. ; Repeat: ±0.5% or 50 ms	Setting: ± 5% of F.S. ; Repeat: ±0.5%	Setting: ± 5% of F.S., Repeat: ±0.5% or 50 ms	Setting: ± 5% of F.S. ; Repeat: ±0.5% or 50 ms	Setting: ± 10% of F.S. ; Repeat: ±2% or 100 ms	Setting: ± 5% of F.S. ; Repeat: ±0.5%	Setting: ± 5% of F.S. ; Repeat: ±0.5% or 50 ms
Reset	On interruption of power ; Reset time < 100 ms	On interruption of power ; Reset time < 100 ms	On interruption of power ; Reset time < 100 ms	On interruption of power ; Reset time < 100 ms	On interruption of power ; Reset time < 100 ms	On interruption of power ; Reset time < 100 ms	On interruption of power ; Reset time < 100 ms	On interruption of power ; Reset time < 100 ms	On interruption of power ; Reset time < 100 ms
LED Indications	Power ON, Relay ON	Power ON, Relay ON	Power ON, Relay ON	Power ON, Relay ON	Power ON, Relay ON	Relay1 ON, Relay2 ON	Power ON	Power ON, Relay ON	Star Relay ON Delta Relay ON
Output contacts	2 C/O (DPDT)	2 C/O (DPDT)	2 C/O (DPDT)	1: 1 C/O SPDT	2 C/O (DPDT)	1 C/O each for forward & reverse	2 C/O (DPDT)	1 C/O (SPDT)	1 C/O relay each for star & delta
Relay rating	5 A@230 VAC / 24 VDC resistive	5 A@230 VAC / 24 VDC resistive	5 A@230 VAC / 24 VDC resistive	5 A@230 VAC / 24 VDC resistive	5 A@230 VAC / 24 VDC resistive	5 A@230 VAC / 24 VDC resistive	2.5 A@250 VAC / 28 VDC resistive	5 A@230 VAC / 24 VDC resistive	5 A@230 VAC, resistive
Supply voltage	20 to 240 VAC AC: 50 or 60 Hz	20 to 240 VAC 12 to 240 VDC	230: 230 VAC 12: 12 VDC (factory set)	12: 12 VDC 110: 110 VAC 230: 230 VAC 415: 415 VAC (factory set)	20 to 240 VAC 12 to 240 VDC	20 to 240 VAC 12 to 240 VDC	110 to 240 VAC/DC	230: 230 VAC & 24 VAC/DC 110: 110 VAC & 24 VAC/DC	230: 230 VAC, 415: 415 VAC, 110: 110 VAC (factory set)
Temperature	Operating: 0 to 50°C Storage: -20 to 75°C	Operating: 0 to 50°C Storage: -5 to 50°C	Operating: 0 to 50°C Storage: -5 to 50°C	Operating: 0 to 50°C Storage: -5 to 50°C	Operating: 0 to 50°C Storage: -5 to 50°C	Operating: 0 to 50°C Storage: -5 to 50°C	Operating: 0 to 50°C Storage: -5 to 50°C	Operating: 0 to 50°C Storage: -5 to 50°C	Operating: 0 to 50°C Storage: -20 to 75°C
Humidity (non-condensing)	95% RH	95% RH	95% RH	95% RH	95% RH	95% RH	95% RH	95% RH	95% RH
Weight	100 gms	100 gms	100 gms	70 gms	110 gms	100 gms	110 gms	115 gms	90 gms
Certifications	CE, RoHS	CE, RoHS			CE, RoHS		CE, RoHS	CE, RoHS	CE, RoHS
Dimensions	Refer to diagram F on page 11					Refer to diagram F on page 11			
Terminal Connections	<p>NOTE: Relay2 applicable for 2 C/O models only.</p>								
Ordering Code	800XU	800XA	800M-230 Supply Voltage 230 VAC 800M-12 Supply Voltage 12 VDC	800S-1-ON-30S-230 1 C/O, On delay, 30 sec, 230 VAC 800S-1-ON-60S-230 1 C/O, On delay, 60 sec, 230 VAC	800XC	800XMR	800POD-60 Time Range: 60 seconds 800POD-180 Time Range: 180 seconds	800SQ-A-230 Supply Voltage 230 VAC & 24 VAC/DC 800SQ-A-110 Supply Voltage 110 VAC & 24 VAC/DC	800SD-2-230 Supply Voltage 230 VAC 800SD-2-415 Supply Voltage 415 VAC 800SD-2-110 Supply Voltage 110 VAC

Special function timers

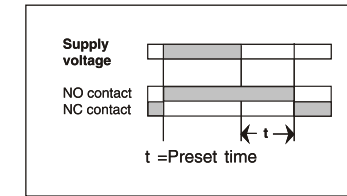
800XMR

Forward - Pause - Reverse timer
Special timer for repetitive forward and reverse motion of motor with intermediate pause timing.



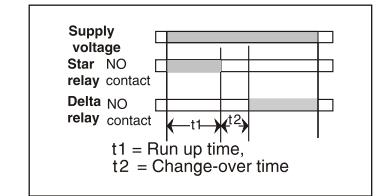
800POD

True power off delay timer



800SD-2 STAR DELTA TIMER

Special timer for star delta changeover. For star-delta starting of 3 Ø induction motors

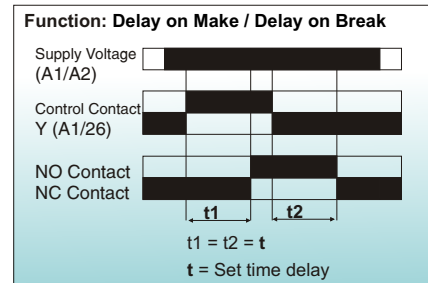


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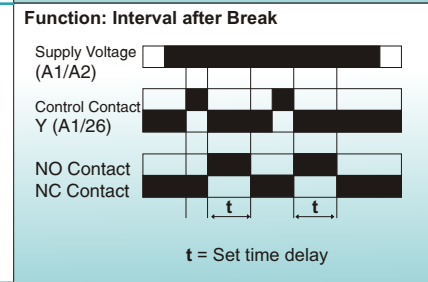
TIMING DIAGRAM

FOR 800 / 642 SERIES

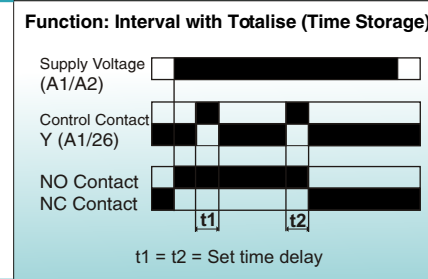
- **Delay on Make / Delay on Break:** Delay on Make time delay t_1 and delay on break time delay t_2 are same i.e. t . Upon application of input voltage and the closure of 'Y', t_1 begins and the output remains de-energized. At the end of t_1 , the output energizes. Upon the opening of 'Y' t_2 begins. At the end of t_2 , the output de-energizes.
- **Reset:** If 'Y' is opened during t_1 , then t_1 is reset and the output remains de-energized. And if 'Y' is closed during t_2 then t_2 is reset and the output remains energized. Removing input voltage resets the time delay and output



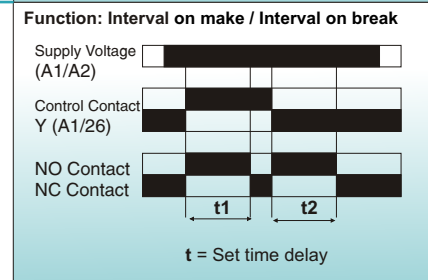
- **Interval after Break:** Input voltage must be applied before and during timing. Upon application of input voltage, the output remains de-energized. On opening (after a closure), the control contact 'Y' the output energizes and time delay begins. The output remains energized during timing. At the end of the time delay the output de-energizes.
- **Reset:** Opening (by closing and then opening) the 'Y' contact during timing resets the time delay. Removing input voltage resets the Time delay and output.



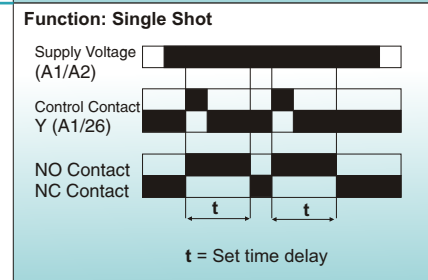
- **Interval with Totalize (Time Storage):** Input voltage must be applied before and during timing. The output is energized before and during the time delay. Each time the 'Y' contact is closed, the time delay progresses; when it opens, timing stops. When the amount of time 'Y' is closed equals the full time delay, the output de-energizes and remains de-energized until reset.
- **Reset:** Removing input voltage resets the time delay and output.



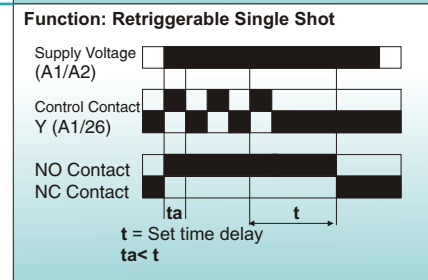
- **Interval on Make / Interval on Break:** Interval on Make time delay t_1 and Interval on break time delay t_2 are same i.e. t . Upon application of input voltage and the closure of 'Y', t_1 begins and the output energizes. At the end of t_1 , the output de-energizes. Upon the opening of 'Y' t_2 begins and the output energizes again. At the end of t_2 , the output de-energizes.
- **Reset:** If 'Y' is opened during t_1 , then t_1 is reset and the output remains energized. And if 'Y' is closed during t_2 then t_2 is reset and the output remains energized. Removing input voltage resets the time delay and output



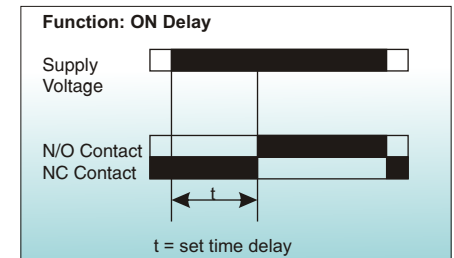
- **Single Shot:** Input voltage must be applied before and during timing. Upon momentary or maintained closure of the control contact 'Y' the output energizes and the time delay begins. At the end of the delay the output de-energizes. Opening or re-closing the 'Y' contact during timing has no effect on the time delay.
- **Reset:** Reset occurs when the time delay is complete and the 'Y' contact is open. Removing input voltage resets the time delay and output.



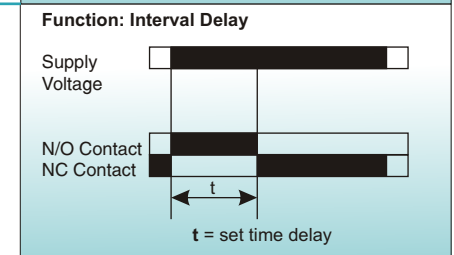
- **Retriggerable Single Shot:** Input voltage must be applied before and during timing. Upon momentary or maintained closure of the control contact 'Y' the output energizes and the time delay begins. At the end of the delay the output de-energizes.
- **Reset:** Re-closing 'Y' contact resets the time delay and restarts timing. Removing input voltage resets the time delay and output.



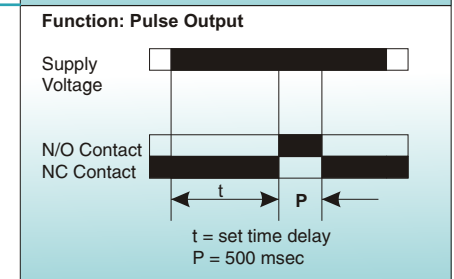
- **ON Delay:** When input power is applied timing (t) begins, during which the output relay remains de-energized. At the end of the preselected time (t), relay energizes. The output relay is de-energized when power is removed, thus resetting the timer for the next cycle.
- **Reset:** Removing input voltage resets the time delay and output relay.



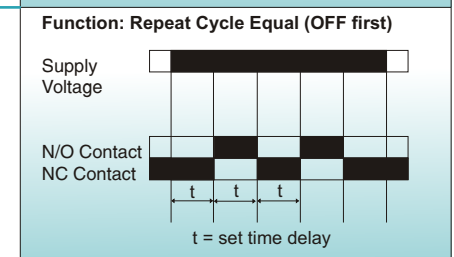
- **Interval Delay:** Applying the power supply starts the time delay & the output relay gets energized. At the end of the preset time, the contact gets de-energised. The timer is reset when the input power is removed.
- **Reset:** Removing input voltage resets the time delay and output relay.



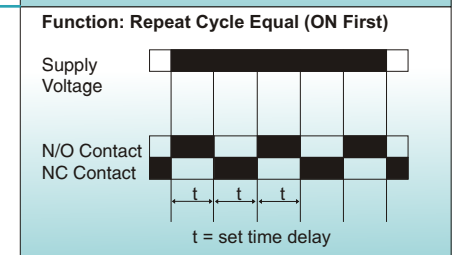
- **Pulse Output:** Applying the power supply starts the time delay, during which the output relay remains de-energized. At the end of the preset period, the relay gets energized for a preset time P ($P=500\text{ms}$). At the end of time P again relay de-energizes.
- **Reset:** Removing input voltage resets the time delay, output relay and the sequence.



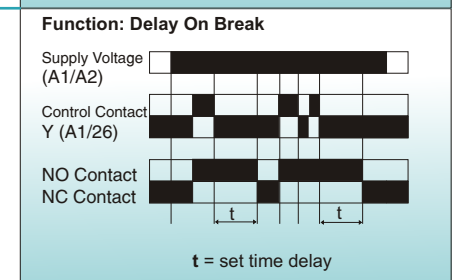
- **Repeat Cycle Equal (OFF First):** Upon application of input voltage, the output relay remains de-energized and time t begins. At the end of the time t , output relay energizes for set time t . At the end of time t again relay de-energizes and this cycle continues until input voltage is removed.
- **Reset:** Removing input voltage resets the time delay, output relay and the sequence.



- **Repeat Cycle Equal (ON First):** Upon application of input voltage, the output relay energizes and Time t begins. At the end of the time t , output relay de-energizes for set time t . At the end of time t again relay energizes and this cycle continues until input voltage is removed.
- **Reset:** Removing input voltage resets the time delay, output relay and the sequence.



- **Delay on Break:** Input voltage must be applied before and during timing. Upon application of input voltage, the output remains de-energized. On closing the control contact 'Y' the output energizes. The time delay begins when 'Y' is opened. The output remains energized during timing. At the end of the time delay the output de-energizes. The output will energize if 'Y' is closed when input voltage is applied.
- **Reset:** Re-closing the 'Y' contact during timing resets the time delay. Removing input voltage resets the Time delay and output.



- **Delay on Make with Totalize (Time Storage):** Input voltage must be applied before and during timing. The output is de-energized before and during the time delay. Each time the 'Y' contact is closed, the time delay progresses; when it opens, timing stops. When the amount of time 'Y' is closed equals the full time delay, the output energizes and remains energized until reset.
- **Reset:** Removing input voltage resets the time delay and output.

