

**FEATURES:**

- Multifunction: 13 functions
- Multi range: 8 ranges from 0.3 sec to 10 hr
- Universal voltage type:
(Model 642UX: 22 V AC / DC to 270 V AC/DC)
- Control contact
- Repeat accuracy better than 0.5 %
- Finger guards for safety
- DIN Rail mounting
- Slim, space saving construction
- Compliance : CE (Model 642UX only)

ORDERING INFORMATION :

MODEL	SUPPLY	DELAY MODE	TIME RANGES	OUTPUT CONTACT
642UX	22 V AC/DC to 270 V AC/DC	13 functions (refer waveforms)	3 / 10 / 30 sec, 3 / 10 / 30 min, 3 hr, 10 hr	1 NO/NC
642MX	230 (230 V AC) 110 (110 V AC)			

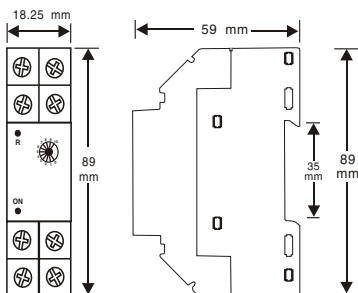
NOTE :

1. Use information in shaded area for ordering.
2. Other features are user selectable.

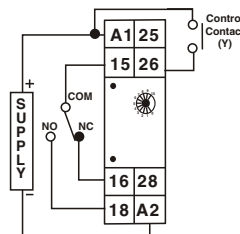
ORDERING EXAMPLE :

642UX : Timer model 642UX, universal voltage, Multifunction, multi range timer

642MX - 230: Timer model 642MX, Multifunction, multi range timer, supply 230 VAC

DIMENSIONS**SPECIFICATIONS**

SUPPLY VOLTAGE	642UX: 22 V to 230 VAC /DC (AC : 50 or 60 Hz) 642MX: 230 VAC or 110 VAC factory set (tolerance: -15 to +10 %, AC: 50 or 60 Hz)
DELAY MODES	13 functions (refer waveforms) (selectable by DIP switches)
TIME RANGES	3 sec, 10 sec, 30 sec, 3 min, 10 min, 30 min, 3 hr, 10 hr (selectable by DIP switches)
INPUT	Control contact
OUTPUT CONTACT	1 NO/NC
ACCURACY	Setting : $\pm 5\%$ of full scale Repeat : $\pm 0.5\%$ or 50 msec whichever is greater
LED INDICATION	1) Power ON 2) Relay ON
RESET	On interruption of power Reset time: Less than 100 msec
RELAY RATING	5 A @ 230 VAC / 24 VDC, resistive
MOUNTING	DIN rail mounting
SIZE (in mm)	18.25 (W) x 89 (H) x 59 (D)
HOUSING	Flame retardant engineering plastic
TEMPERATURE	Operating: 0 to 50°C Storage: - 20 to 75°C
HUMIDITY	Up to 95% RH
WEIGHT	65 grams

TERMINAL CONNECTIONS

FUNCTION / TIMING WAVEFORMS : 642UX & 642MX

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-energized. 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=500ms). 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:

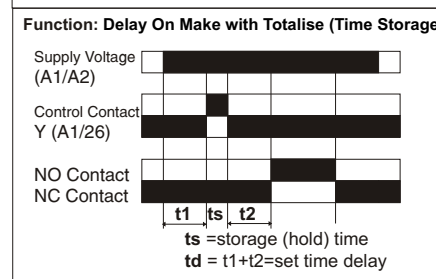
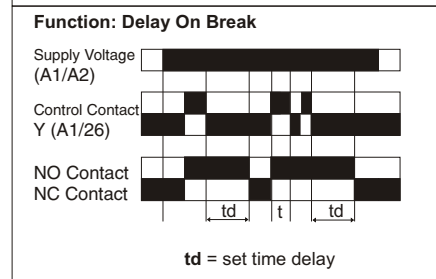
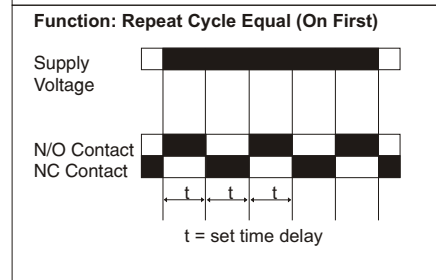
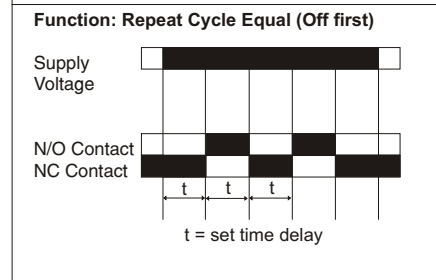
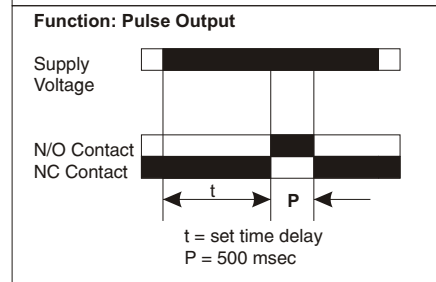
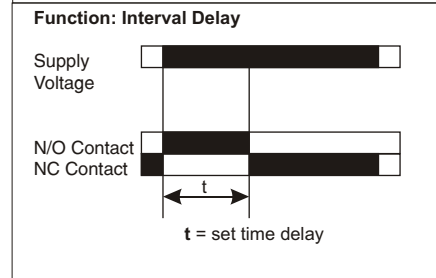
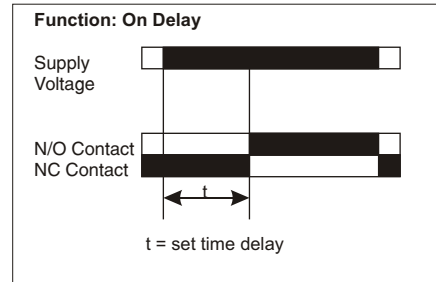
Input voltage must be applied before and during timing. Upon application of input voltage, the output remains de-energized. On closing the control contact 'Y' the output energizes. The time delay begins when 'Y' is opened. The output remains energized during timing. At the end of the time delay the output 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.

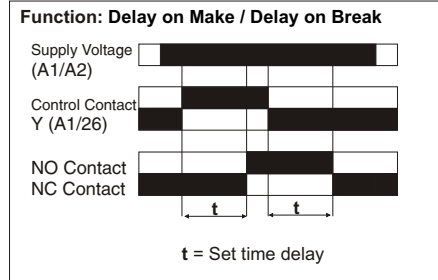


FUNCTION / TIMING WAVEFORMS : 642UX & 642MX (CONTINUED)

Delay on Make / Delay on Break:

Delay on Make time delay TD1 and delay on break time delay TD2 are same i.e. t . Upon application of input voltage and the closure of 'Y', TD1 begins and the output remains de-energized. At the end of TD1, the output energizes. Upon the opening of 'Y' TD2 begins. At the end of TD2, the output de-energizes.

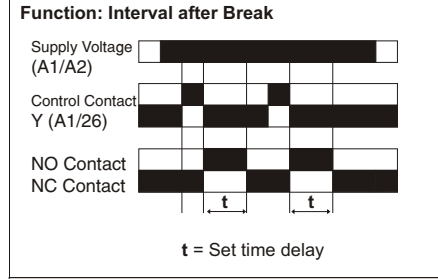
Reset: If 'Y' is opened during: a) TD1, then TD1 is reset and the output remains de-energized. And if 'Y' is closed during b) TD2 then TD2 is reset and the output remains energized. Removing input voltage resets the time delay and output



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.

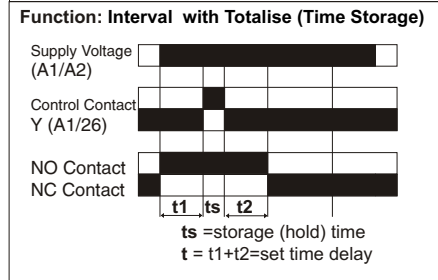
Reset: Opening (by closing and then opening) the 'Y' contact during timing resets the time delay. Removing input voltage resets the Time delay and output.



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.

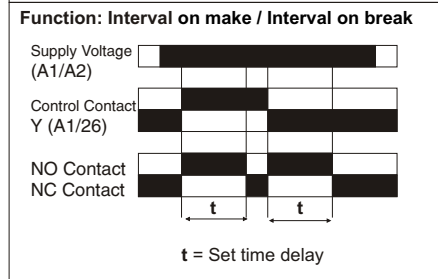
Reset: Removing input voltage resets the time delay and output.



Interval on Make / Interval on Break:

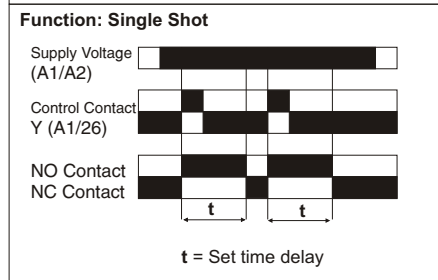
Interval on Make time delay TD1 and Interval on break time delay TD2 are same i.e. t . Upon application of input voltage and the closure of 'Y', TD1 begins and the output energizes. At the end of TD1, the output de-energizes. Upon the opening of 'Y' TD2 begins and the output energizes again. At the end of TD2, the output de-energizes.

Reset: If 'Y' is opened during: a) TD1, then TD1 is reset and the output remains energized. And if 'Y' is closed during b) TD2 then TD2 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.

