

OPERATING INSTRUCTIONS XT520N



SPECIFICATIONS DISPLAY

3 digit, 0.5" high , Red LED

TIME RANGES

9.99S, 99.9S, 999S, 9:59Min:S, 99.9Min, 999Min, 9:59Hr:Min, 99.9Hr, 999Hr

COUNTING DIRECTION UP / DOWN

MODES

- a) ON delay b) INT. delay
- c) Cyclic ON first d) Cyclic OFF first

TIME SETTING

By key switches

LED INDICATION

Relay ON

OUTPUTS

DPDT (2 change over) relay, each contact rated at 5A 230 VAC / 24 VDC

INPUTS

- a) Start b) Reset

RESET

- a) Front panel switch or
- b) Rear terminal for remote or
- c) Power interruption

RESET TIME

Less than 100 msec

ACCURACY

± 0.05% or 50 msec whichever is greater.

SUPPLY

85 to 270 VAC/DC, 50/60Hz

MOUNTING

Panel mounting

OPERATING TEMP.

0 - 50°C

HUMIDITY

95% RH

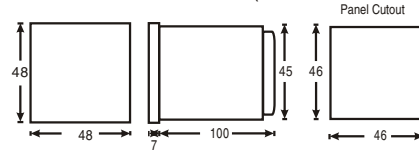
HOUSING

ABS Plastic

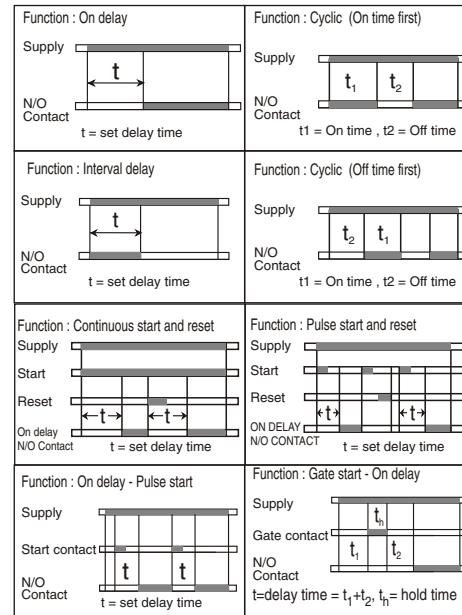
WEIGHT

200gms

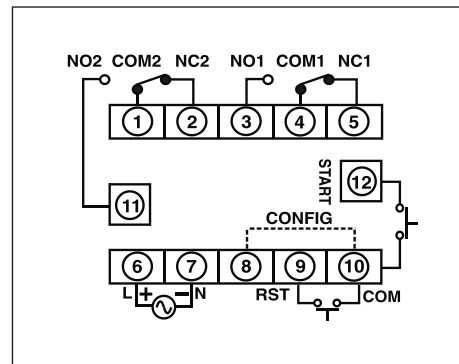
PANEL DIMENSIONS (dimensions in mm)



OPERATING MODES :



TERMINAL CONNECTIONS



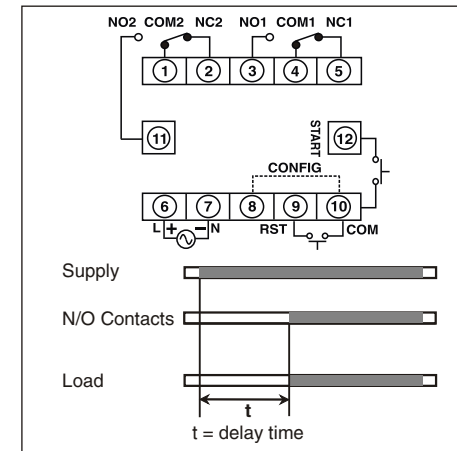
Note: To start timing on application of power set timer in **GATE START MODE** & open I terminals marked **START & COM**

Terminal Description	XT520N
L (Live or +ve of DC)	6
N (Neutral or -ve of DC)	7
COM1 of relay	4
NO1 of relay	3
START	12
RESET	9
COM2 of relay	1
NO2 of relay	11
Config (short with 10 for config. Entry)	8
Common for START/RST/CONFIG	10
NC1 of relay	5
NC2 of relay	2

TYPICAL APPLICATIONS

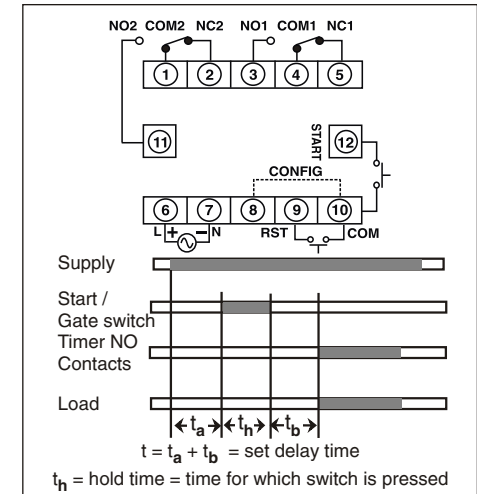
1. **On delay** i.e. to activate the load after the delay of set time (t). Timing should start as power is applied:

Set XT520N in **On delay & Gate start mode** with terminals marked **START & COM** should be open



2. **On delay with gate function** i.e. to activate the load after the delay of set time (t). Timing should hold (stop counting) when switch (START) is pressed:

Set XT520N in **On delay & Gate start mode** with Switch (START) connected between terminals marked **START & COM**

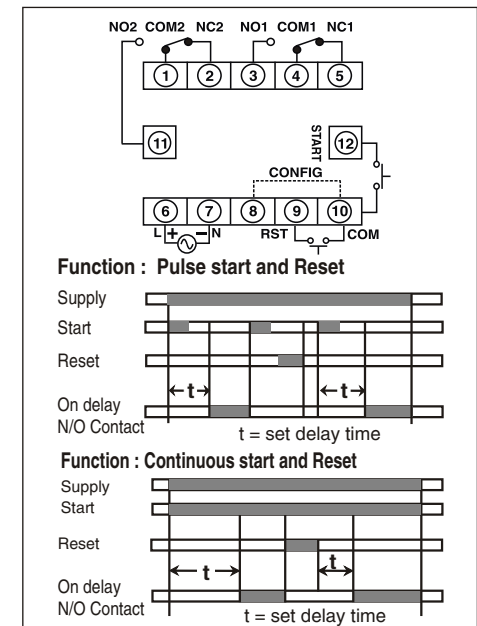


3. **Pulse start On delay** i.e. to activate the load after the delay of set time (t).

a) Timing will start when momentary switch (START) is pressed:

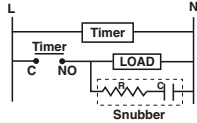
b) If switch (START) is continuous pressed then timing will start at every power on or Reset.

Set XT520N in **On delay & Pulse start mode** with Switch (START) connected between terminals marked **START & COM**

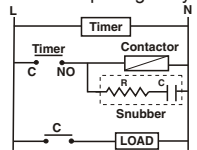


TYPICAL CONNECTIONS FOR LOADS :

1) For load current less than 0.5A



2) For bigger loads interposing relay/ contactor



NOTE: Use snubber as shown above to increase relay life of timer.

CONFIGURATION SCHEME

(Parameter setting)

- 1) For configuration: Short terminals 8 & 10
- 2) Turn power on
- 3) Program configuration setting as per instructions below

Key press	Display	Description
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1. To select Range.

NOTE: Blinking of left digit shows range .

Key press	Display	Description
	* Blinking digit 001	9.99 sec.
Press SET ▲	101	99.9 sec.
Press SET ▲	201	999 sec.
Press SET ▲	301	9.59 Min; sec.
Press SET ▲	401	99.9 Min.
Press SET ▲	501	999 Min.
Press SET ▲	601	9.59 Hrs; Min
Press SET ▲	701	99.9 Hrs.
Press SET ▲	801	999 Hrs.

Key press	Display	Description
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2. Press MODE ► to select Delay mode

NOTE: Blinking of center digit shows operating delay. * Blinking digit

OPERATING DELAY	201	On delay
Press SET ▲	211	Interval delay
Press SET ▲	221	Cyclic (on first)
Press SET ▲	231	Cyclic (off first)

3. Press MODE ► to select Time counting direction

NOTE: Blinking of right digit shows time counting direction. * Blinking digit

TIME COUNTING DIRECTION	200	Up counting
Press SET ▲	201	Down counting

4. Press ENT ◼ to select Front reset key

NOTE: Blinking of center digit shows front reset key. * Blinking digit

FRONT RESET KEY	01	Enabled (Yes)
Press SET ▲	11	Disabled (No)

5. Press MODE ► to select Start input

NOTE: Blinking of right digit shows start mode. * Blinking digit

START MODE	00	Gate start
Press SET ▲	01	Pulse start

Pulse start: In this the timing start on application of external signal (contact open to close in XT520N at start input)

Gate start: In this when start (gate) is high (contact closed) the relay state does not change but the time counting stops (hold), on release of contact time counting starts from the last time count.

STEP 6: After configuration setting

- 1) Turn power off
- 2) Remove link between terminals 8 & 10
- 3) Turn power on

PROGRAMMING METHOD

In programming mode the digit which is blinking can be changed. The blinking digit increments by 1 for every press of the SET (▲) key & rolls over from 9 to 0. The blinking digit shifts to next digit (left) for every press of MODE (►) key Using these keys user can set the required code value. After setting the value press ENT (◼) key to go for next programming step.

TO PROGRAM / SET TIME

Press SET (▲) key continuously for 3 sec.

* Blinking digit

201

In On / Interval mode: Left digit (MSD) start blinking. The preset time can be set by using MODE (►) key & SET (▲) keys. Press ENT (◼) key to store the new value. New value will be activated after the power off/on or after reset.

In Cyclic mode: Left digit (MSD) start blinking. The decimal point of right digit(LSD) glows to indicate ON Time setting in cyclic mode. The preset ON time can be set by using MODE (►) & SET (▲) keys, after setting the ON time press ENT (◼) key. Left digit (MSD) will start blinking again & OFF time can be set by using MODE (►) & SET (▲) keys, after setting the OFF time press ENT (◼) key to store the new value. New value will be activated after the power off/on or after reset.

VIEW MODE:

1. To view preset value: Press SET (▲) key momentary (less than 3 sec), the display will show the preset value (in On/ interval mode) or ON time (in cyclic mode) for 5 seconds. For OFF time in cyclic mode press SET (▲) key momentary twice (with the interval of less than 5 sec) display will show OFF time value for 5 seconds.

2. To view function / mode parameters: Press MODE (►) key the display will show the 3 digits code value for first 3 functions i.e. range, mode & count direction. On pressing MODE (►) key momentary twice (with the interval of less than 3 sec) display will show 2 digit code value for front reset & start input functions.

RESETTING THE TIMER

- FRONT RESET: By pressing RST/ENT key continuously for 3 seconds. (valid if front reset key enabled in mode setting)
- REMOTE RESET: From a remote pushbutton connected between terminals marked RESET & COM
- On power interruption



If terminals 8 & 10 are shorted at power on, timer will go in to the configuration mode. To quit configuration setting mode, turn power off, remove link between 8 & 10 and switch power on.

(Specifications subject to change as development is a continuous process)