

# OPERATING INSTRUCTIONS XT543-N / 243 / 343



## SPECIFICATIONS

### DISPLAY

3 digit, height 0.5".

### SET POINTS

Single set point.

### DELAY MODES

On delay, Interval, Cyclic on first & Cyclic off first (Configurable by keys).

### SUPPLY VOLTAGE

90 to 270 VAC/DC @ 50 or 60Hz.

### TIME RANGES

9.99, 99.9, 999 sec, 9:59 min:sec,  
99.9, 999 min, 9:59 hr:min, 99.9, 999 hr.  
(Configurable by keys).

### TIME SETTING

By key pad.

### ACCURACY

±0.5% or 50msec.whichever is greater.

### START INPUT

Gate / Pulse (Programmable)

### RESET INPUT

- 1) Front panel reset  
(for On delay / Interval only).
- 2) Remote reset.
- 3) On power interruption.

### RESET TIME

Less than 100 msec.

### COUNTING DIRECTION

Down.

### LED INDICATION

Relay status.

### OUTPUT

2 C/O.

### RELAY RATING

5A@230VAC / 24VDC.

### MOUNTING

Panel mounting.

### CONFIGURATION LOCK

via rear terminals.

### HOUSING

ABS.

### TEMPERATURE

Operating: 0 to 50°C. Storage: -5 to 55°C

## HUMIDITY

95%RH.

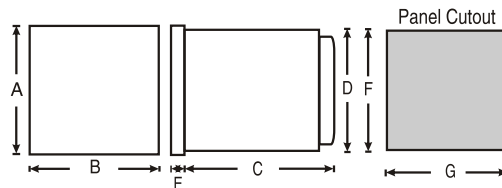
## WEIGHT

XT543-N: 160gm, XT243: 285gm, XT343: 300gm

## PRODUCT CODE

| MODELS   | BEZEL SIZE(mm) |
|----------|----------------|
| XT 543-N | 48 x 48        |
| XT 243   | 72 x 72        |
| XT 343   | 96 x 96        |

## OVERALL DIMENSIONS (All dimensions in mm)



| DIM     | A  | B  | C   | D  | E  | F  | G  |
|---------|----|----|-----|----|----|----|----|
| XT543-N | 48 | 48 | 100 | 45 | 7  | 46 | 46 |
| XT243   | 72 | 72 | 115 | 68 | 10 | 69 | 69 |
| XT343   | 96 | 96 | 70  | 90 | 10 | 92 | 92 |

## OPERATING MODES

|                                                  |                                             |
|--------------------------------------------------|---------------------------------------------|
| <b>On delay - Pulse start</b><br>                | <b>On delay - Gate start</b><br>            |
| <b>Interval - Pulse start</b><br>                | <b>Interval - Gate start</b><br>            |
| <b>Cyclic (On time first)</b><br>                | <b>Cyclic (Off time first)</b><br>          |
| <b>Continuous start and reset - On Delay</b><br> | <b>Pulse start and reset - On delay</b><br> |

## TERMINAL CONNECTIONS

| <b>XT543-N</b><br>           |               |       |       |
|------------------------------|---------------|-------|-------|
| <b>XT243</b><br>             |               |       |       |
| <b>XT343</b><br>             |               |       |       |
| TERMINAL DESCRIPTION         | TERMINALS FOR |       |       |
|                              | XT543-N       | XT243 | XT343 |
| L (Live)                     | 6             | 15    | 18    |
| N (Neutral)                  | 7             | 16    | 17    |
| Short to enter configuration | 8 - 10        | 5 - 6 | 7 - 8 |
| COM of relay 1               | 4             | 8     | 11    |
| NO of relay 1                | 3             | 7     | 10    |
| NC of relay 1                | 5             | 9     | 12    |
| COM of relay 2               | 1             | 11    | 14    |
| NO of relay 2                | 11            | 10    | 13    |
| NC of relay 2                | 2             | 12    | 15    |
| START input                  | 12 - 10       | 1     | 1     |
| RESET input                  | 9 - 10        | 3     | 3     |
| COM (Gnd)                    | 10            | 2     | 2     |

## PROGRAMMING SCHEME

### CONFIGURATION SCHEME :

- 1) At power OFF, short terminals for configuration\*.
- 2) Turn power ON.
- 3) Program configuration setting as per instructions below.

**NOTE :** LSD dp blinks during programming.

\*For XT543-N short terminals 8 & 10

for XT243 short terminals 5 & 6

for XT343 short terminals 7 & 8

to enter into the configuration mode.

### 1. TO SELECT RANGE Default Setting : 9.99sec

| KEY PRESS                 | DISPLAY | DESCRIPTION                                                     |
|---------------------------|---------|-----------------------------------------------------------------|
| RANGE                     | 1 0     | 9.99sec                                                         |
| PRESS <b>□</b> + <b>▲</b> | 1 1     | 99.9sec                                                         |
| PRESS <b>□</b> + <b>▲</b> | 1 2     | 999sec                                                          |
| PRESS <b>□</b> + <b>▲</b> | 1 3     | 9:59 min:sec<br>(MSD dp blinks when the timing is in progress.) |
| PRESS <b>□</b> + <b>▲</b> | 1 4     | 99.9min                                                         |
| PRESS <b>□</b> + <b>▲</b> | 1 5     | 999min                                                          |
| PRESS <b>□</b> + <b>▲</b> | 1 6     | 9:59 hr:min<br>(MSD dp blinks when the timing is in progress.)  |
| PRESS <b>□</b> + <b>▲</b> | 1 7     | 99.9hr                                                          |
| PRESS <b>□</b> + <b>▲</b> | 1 8     | 999hr                                                           |

### 2. PRESS **▲** KEY TO SELECT DELAY MODE Default Setting : On Delay

| KEY PRESS                 | DISPLAY | DESCRIPTION        |
|---------------------------|---------|--------------------|
| DELAY MODE                | 2 0     | ON DELAY           |
| PRESS <b>□</b> + <b>▲</b> | 2 1     | INTERVAL DELAY     |
| PRESS <b>□</b> + <b>▲</b> | 2 2     | CYCLIC (ON FIRST)  |
| PRESS <b>□</b> + <b>▲</b> | 2 3     | CYCLIC (OFF FIRST) |

### 3. PRESS **▲** KEY TO ENABLE / DISABLE FRONT PANEL RESET OPTION Default Setting : Enabled.

Note: Valid only for On delay / Interval mode.

| KEY PRESS                 | DISPLAY | DESCRIPTION   |
|---------------------------|---------|---------------|
| FRONT PANEL RESET         | 3 0     | ENABLED (YES) |
| PRESS <b>□</b> + <b>▲</b> | 3 1     | DISABLED (NO) |

4. PRESS **A** KEY TO SELECT START INPUT  
Default Setting : Pulse Start.

| KEY PRESS                 | DISPLAY | DESCRIPTION |
|---------------------------|---------|-------------|
| START INPUT               | 4 0     | GATE START  |
| PRESS <b>■</b> + <b>A</b> | 4 1     | PULSE START |

**Pulse start:** In Pulse start mode, the timing starts on momentary closure of the Start switch.

**Gate start:** In Gate start mode, when the Start switch is closed, the timing stops and proceeds only after the start switch is released.

5. PRESS **A** KEY TO RESET ALL PARAMETERS TO DEFAULT VALUE

Note: Reset all function is used only to set all parameter values back to default.

| KEY PRESS                 | DISPLAY | DESCRIPTION |
|---------------------------|---------|-------------|
| RESET ALL                 | 5 0     | NO ACTION   |
| PRESS <b>■</b> + <b>A</b> | 5 1     | NO ACTION   |
| PRESS <b>■</b> + <b>A</b> | 5 2     | NO ACTION   |
| PRESS <b>■</b> + <b>A</b> | 5 3     | NO ACTION   |
| PRESS <b>■</b> + <b>A</b> | 5 4     | NO ACTION   |
| PRESS <b>■</b> + <b>A</b> | 5 5     | NO ACTION   |
| PRESS <b>A</b>            | 1 0     | RESET ALL   |

AFTER CONFIGURATION SETTING :

- 1) Turn power OFF.
- 2) Remove link between the terminals.
- 3) Turn power ON.

#### TO PROGRAM SET TIME :

FOR ON DELAY / INTERVAL MODE :

Press **■** + **A** / **■** to program set time.

For Cyclic mode :

ON time - Press **■** + **A** / **■** to program on time

OFF time - To enter programming of off time press **A** + **■** for 3sec. When in Off time programming, the LSD dp blinks. Then press **■** + **A** / **■** to set off time.

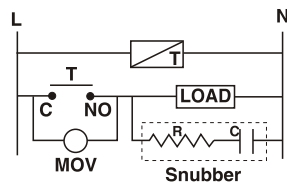
To Exit programming press **A** + **■** for 3sec or auto program out after 60sec if no key is pressed.

#### TO RESET :

For On delay / Interval mode : Press **A** + **■** for 0.6sec to reset.

For Cyclic mode : Front reset not valid.  
Reset only through pulse given From rear terminals.

#### LOAD CONNECTIONS



1) Snubber Part No.: APRC - 01.

2) MOV Part No.: AP-MOV - 03.

Note: For inductive loads, use of snubber and MOV, as shown above, is recommended.

#### USER GUIDE

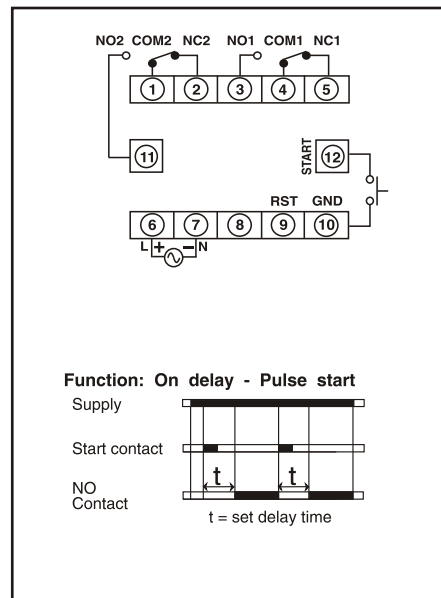
Typical applications of Pulse start & Gate start input:

##### 1. ON Delay with Pulse start input:

- i. Terminal connections shall be as per fig. 1
- ii. Timing starts on momentary closure of Start switch.
- iii. If Start switch is kept closed continuously, the timing will start at every power ON or reset.

XT543-N in ON Delay mode and Pulse start input:

Fig.1 Terminal Connections

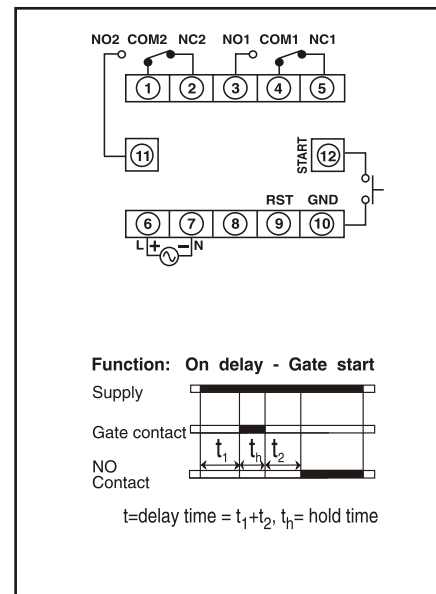


##### 2. ON Delay with Gate start Input:

- i. Terminal connections shall be as per fig. 2.
- ii. Timing starts at power ON.
- iii. When the start switch is closed, the timing is held and it proceeds only after the start switch is released.

XT543-N in ON Delay mode and Gate start input:

Fig.2 Terminal Connections



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

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