OP1091-V01

selec

# XTC4102 , XTC4102-2

Operating Instructions

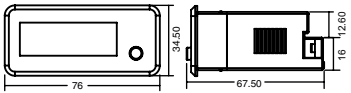
36 X 72mm

## SPECIFICATIONS

| | |
|---|---|
| **Display** | 6 digit, 0.30" White 7 segment LED |
| **Supply voltage** | XTC4102:- 90 to 270V AC/ DC,@50/60 Hz<br>XTC4102-2:- 12 to 24V DC |
| **Time range** | **Counter :**<br>999999 counts<br>**Timer :**<br>a) 99999.9 sec<br>b) 999999 sec<br>c) 99999.9 min<br>d) 999999 min<br>e) 99999.9 hrs<br>f) 999999 hrs |
| **Sensor Supply** | 12VDC@30mA<br>(use external supply if current>30mA ) |
| **Input** | **Counter :**<br>5 to 30V DC from Proximity switches, Encoders, Potential free contacts, Limit switches etc.<br>**Timer :**<br>Potential free contact |
| **Input Speed** | **Counter :**<br>1. 20Hz (DIP 1 ON)<br>2. 5 kHz (DIP 1 OFF) |
| **Memory retention** | 10 years |
| **Accuracy** | ±0.05% for Time Range |
| **Housing** | Flame retardant plastic. |
| **Mounting** | Panel mounting. |
| **Temperature** | Operating : 0 - 50°C<br>Storage : -20 - 75°C |
| **Humidity** | 95% RH |
| **Weight** | 85gms |

## MECHANICAL INSTALLATION

Panel cutout : 29mm x 71mm




## SAFETY PRECAUTIONS

**Please maintain these instructions and review them prior to using the unit :**

### ⚠ WARNING

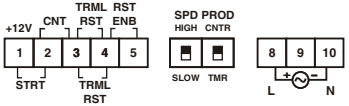
1.This unit is panel mounted type with its output terminals connecting to the host equipment. Such equipment shall also comply with basic EMI/EMC and safety requirements like IEC 61326-1 and IEC 61010 respectively.
2.To avoid electric shock, power supply of the unit should be kept off while wiring. Wiring should be done strictly as per the terminal layout, given in the manual.

### ⚠ CAUTION

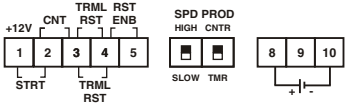
1.This unit is not intended for outdoor use.
2.The power connection cable must have a cross-section of at least 1sq.mm and insulation capacity of at least 1.5kV.
3.The output connections must not be loaded beyond the specified values/range.
4.Avoid inflow of dust and contact of conductive material with the internal circuitry of the unit.
5.The unit must not operate in presence of heating sources,
caustic vapors, oil, steam, vibration or impact etc.
6. Use clean moist cloth soaked in water for cleaning. Avoid entry of water into the circuitry through the ventilation holes.

## TERMINAL CONNECTIONS

**XTC4102**




**XTC4102-2**




| TERMINALS | FOR COUNTER | FOR TIMER |
|---|---|---|
| 1 | +12V | +12V |
| 1 - 2 | - | Start |
| 2 - 3 | Count | - |
| 3 - 4 | Terminal Reset | Terminal Reset |
| 4 - 5 | Front Reset Enable | |

## DIP SWITCH SETTING

| DIP SWITCH | OFF | ON |
|---|---|---|
| DIP 1* | High speed | Slow speed |
| DIP 2 | For Counter | For Timer |

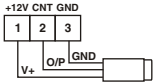
***Note: DIP 1 is available only for Counter.**

## TYPICAL APPLICATION

### FOR COUNTER

**CASE1:** Operated by external contact.
1) A PNP/NPN proximity sensor can be used instead of switch.(NPN/PNP can selected through Config)
2) Connect proximity switch between terminals 1,2 & 3.
3) The count displayed on XTC4102 will be indicative count (Sensed by Sensor).

**NPN / PNP Sensor :**




**CASE2:** Operated only by Potential free contact

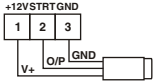
**Potential free contact :**

**Note :- Potential free count will work only during NPN selection**

### FOR TIMER

**CASE1:** Operated by external contact.
1) A PNP proximity sensor can be used instead of a switch.
2) Connect proximity switch between terminals 1,2 & 3.
3) The time displayed on XTC4102 will be indicative of the time for which the machine is ON(Sensed by Sensor).

**PNP Sensor :**

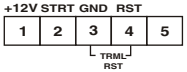



**CASE2:** Operated only by Potential free contact
1) Short Terminal 1 & 2 of XTC4102.
2) Display will be On when power is applied to the machine and XTC4102 at a same instance. XTC4102 will display the time for which the machine is ON.

**Potential free contact :**

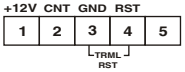
## RESET METHOD

**For Timer :-**
**By Terminals :** Short terminals 3 & 4 .




**For Counter :-**
**By front key :** Short terminals 4 & 5 to enable front panel reset. Press RST key ● momentarily

**Remote reset :**

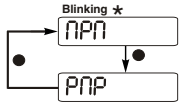



## CONFIGURATION INSTRUCTION

1) Press ●key at complete power ON to enter configuration mode
2) Scroll various function ranges by pressing ●key.

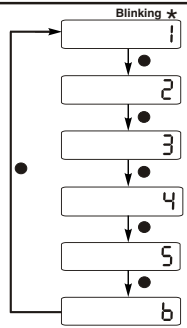
### FOR COUNTER

**Sensor Selection** — **Default : NPN**




### FOR TIMER

**Range Selection** — **Default : 1**




**The unit will auto exit configuration mode after 15sec. of key inactivity or by turn unit OFF & ON**

### TO READ RANGE (For Timer Only)

| KEY PRESS (MOMENTARY) | DISPLAY | DESCRIPTION |
|---|---|---|
| ● | 1 | Range code is displayed for selected range |

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