selec

XC10

Operating Instructions

OP3096-V01



48 x 96

PARAMETERS	SPECIFICATIONS
Display	6 digits, 0.56" height, 7 Seg LED (White). **Counter**: 6 digits, **Rate**: 4 digits.
Keys	1 key for Reset
Inputs	3 to 30VDC from Proximity switches, Encoders, Potential free contacts, Limit switches etc.
Input Speed	**Slow Speed:** 3Hz **High Speed:** 5Khz
Sensor Supply	12VDC @ 30mA (±10%)
Reset	1.On front panel. 2.Remote reset (via rear terminals).
Memory retention	10 years
Range	Counter: 999999 Rate: Auto ranging (4.00 to 9999 RPM)
Mounting	Panel Mount
POWER SUPPLY SPECIFICATIONS	
Supply Voltage	90 to 270V AC / DC (AC : 50 / 60 Hz)
Power Consumption	5 VA max@270V AC/DC
Temperature	Operating : 0 to 50°C Storage : -20 to 75°C
Humidity	95% RH (non-condensing)
Weight	100 gms
Protection Level	IP65 for faceplate

TERMINAL CONNECTIONS



XC10

TERMINAL DESCRIPTION

TERMINALS	DESCRIPTION
+12V	+12V
CNT GND	Count
GND RST	Terminal Reset
N	Neutral (-)
L	Live (+)

DIP SWITCH SETTING

PARAMETERS	DIP SWITCH	ON	OFF
Mode	1	Rate	Counter
Speed Selection	2	Slow Speed	High Speed
Front Key Reset	3	Enable	Disable
Sensor Selection	4	NPN	PNP

DIP SWITCH SETTING EXAMPLE



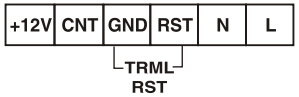
Mode - Rate
Speed Selection - High Speed
Front Key Reset - Disable
Sensor Selection - NPN

NOTE : DIP switch for range and mode settings is on the Top of the Instrument.

RESET METHOD

By front key : Turn on Dip switch 3 to enable front key reset. Press RST key momentarily.

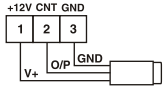
By terminals : Short terminals GND & RST to reset the unit via terminals.



TYPICAL APPLICATION

CASE1: Operated by external contact.
1) A PNP/NPN proximity sensor can be used instead of switch.(NPN / PNP can selected through DIP SW)
2) Connect proximity switch between terminals 1,2 & 3.
3) The Count/Rate will be displayed on XC10.

NPN / PNP Sensor :



(**Sensor color codes :-**
Red = +12V, Green = CNT, Black = GND
Brown = +12V, Black = CNT, Blue = GND)

CASE2: Operated only by Potential free contact

Potential free contact

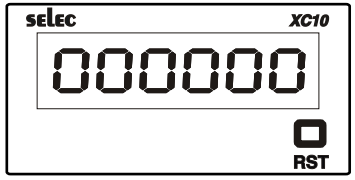


Note 1 :- Sensor selection (PNP/NPN) is detected only at Power ON .
Note 2 :- Potential free count will work only during NPN selection.

FRONT PANEL DESCRIPTION

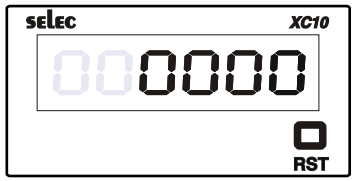
1.Counter: Turn Off the dip switch no. 1 to enter into Counter mode.

Range: 999999



1.Rate: Turn On the dip switch no. 1 to enter into Rate mode.

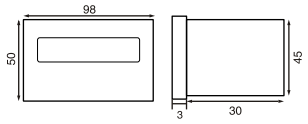
Range: 4.00 to 9999 RPM



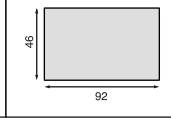
MECHANICAL INSTALLATION

For installing the controller

Outline Dimensions (in mm)



Panel Cutout (in mm)



1. Prepare the panel cutout with proper dimensions as shown above.
2. Fit the unit into the panel (Self locking mechanism).
3. The equipment in its installed state must not come in close proximity to any heating sources, caustic vapors, oils, steam or other unwanted process by-products.
4. Do not connect anything to unused terminals.
5. Use minus type screw driver to remove unit from the panel. Put screw driver in the cavity of clamp and gently push outside.

PANEL THICKNESS

0.5mm(minimum) and 2.5mm(maximum)

EMC GUIDELINES

1. Use proper input power cables with shortest connections and twisted type.
2. Layout of connecting cables shall be away from any internal EMI source.

ELECTRICAL PRECAUTIONS DURING USE

Electrical noise generated by switching of inductive loads can create momentary discruption, erratic display, latch up, data loss or permanent damage to the instrument.

INSTALLATION GUIDELINES

CAUTION

1. This equipment, being built-in-type, normally becomes a part of main control panel and in such case the terminals do not remain accessible to the end user after installation and Internal wiring.
2. Do not allow pieces of metal, wire clippings, or fine metallic fillings from installation to enter the product or else it may lead to a safety hazard that may in turn endanger life or cause electrical shock to the operator.
3. Circuit breaker or mains switch must be installed between power source and supply terminals to facilitate power 'ON' or 'OFF' function. However this switch or breaker must be installed in a convenient position normally accessible to the operator.
4. Use and store the temperature controller within the specified ambient temperature and humidity ranges as mentioned in this manual.

CAUTION

1. When powering up for the first time, disconnect the output connections.
2. Fuse Protection : The unit is normally supplied without a power switch and fuses. Make wiring so that the fuse is placed between the mains power supply switch and the controller. (2 pole breaker fuse - rating : 275V AC,1A for electrical circuitry is highly recommended)
3. Since this is a built-in-type equipment (finds place in main control panel), its output terminals get connected to host equipment. Such equipment shall also comply with basic EMI/EMC and other safety requirements like BSEN61326-1 and BSEN 61010 respectively.
4. Thermal dissipation of equipment is met through ventilation holes provided on chassis of equipment. Such ventilation holes shall not be obstructed else it can lead to a safety hazard.
5. The output terminals shall be strictly loaded to the manufacturer specified values / range.

SAFETY PRECAUTIONS

All safety related codifications, symbols and instructions that appear in this operating manual or on the equipment must be strictly followed to ensure the safety of the operating personnel as well as the instrument.

If the equipment is not handled in a manner specified by the manufacturer it might impair the protection provided by the equipment.

Read complete instructions prior to installation and operation of the unit.

WARNING : Risk of electric shock.

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

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