SELEC Operating Instructions

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

Warning :

OP120-V04

- 1. This unit is panel mounted type with its output terminals getting connected to the host equipment. Such equipment shall also comply with basic EMI/EMC and safety requirements like BS EN 61326-1 and BS EN 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.
- 3. Use lugged terminals to meet M3.5 screws.
- 4. The unit does not have a built-in fuse. External fuse with a rating of 275V AC/1A is recommended.

▲ Caution :

- 1. This unit is not intended for outdoor use.
- The power connection cable must have a cross section of at least 1 mm² and insulation capacity of at least 1.5kV.
 The output connections must not be loaded beyond the
- The output connections must not be loaded beyond the specified values/range.
 A specified influence of specified influence of specified influence.
- 4. Avoid inflow of dust and contact of conductive material with the internal circuitry of the unit.
- 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. Care must be taken to avoid entry of water into the circuitry through the ventilation holes.

SPECIFICATIONS

DISPLAY

Dual 4 digit 7 segment LED. Upper Display(current value) : 0.5" height, Red color

Lower display(selectable) : 0.3" height, Green color SUPPLY VOLTAGE (Factory Set) 90 to 270V AC/DC, 50/60Hz.

24V AC/DC

OPERATING MODES

999.9 / 9999min, 99:59hr : min 999.9 / 9999hr. Counter : -999 to 9999 counts.

RESOLUTION

0.001, 0.01, 0.1, 1.

DIRECTION
Timer - Down.
Counter - Up / Down.
LED INDICATIONS
Output status, sec, min, hr.
SET POINTS
Dual.
START INPUT
Pulse start.
SENSOR INPUTS
3 to 30V DC from Proximity switches, Encoders,
Potential free contacts.
SENSOR SUPPLY
12V DC, 30mA (Short circuit protected).
INPUT SPEED
3 Hz, 30 Hz, 5 kHz.
SCALE FACTOR
0.001 to 9.999 x 10"
Where n = -3, -2, -1, 0, 1, 2.
RESET
On power interruption, Front panel reset,
Terminal reset.
OUTPUT
2 NO RELAY RATING
5A@230V AC
MEMORY RETENTION
10 years.
ACCURACY
Timer : ±0.05% of setting or
50msec whichever is greater.
MOUNTING
Panel Mounting
TEMPERATURE
Operating : 0°C to 50°C
Storage : -20°C to 75°C
Humidity : 95% max.
HOUSING
Flame retardant plastic.
WEIGHT
175 grams (approx).



FRONT PANEL DESCRIPTION



 Scrolls to next config. parameter and stores for previous parameter setting.
Front panel RST.

JUMPER SELECTION FOR INPUT SENSOR :



NOTE : Same jumper selections remain valid for giving start pulse when using XTC5400 in Timer function.

JUMPER SELECTION TO DISABLE LOCK :

If the lock password is forgotten / lock feature is not required, connect jumpers as in fig. below to disable lock function. These Jumpers are located towards the right of the jumpers for sensor selection.

(Top view of jumpers with housing removed and display on right)



INPUT CONNECTIONS



SCALE FACTOR

Programmable scale factor facilitates display in desired engineering unit. The number of count pulses received are multiplied with the scale factor and the result is displayed as shown :

Display = Number of pulses received x scale factor Scale factor consists of two parts - mantissa & exponent. Mantissa can be set from 0.001 to 9.999 and exponent from -3 to +2. The scale factor value is arrived at as : Scale factor = Mantissa x 10^{Exponent}

CONFIGURATION SCHEME :

NOTE : 1. Press **1** to go to the next programming step and store the current programmed value in EEPROM. 2. If no key is pressed for 2min, the unit will auto-exit from configuration.







To select lower display options :

Press **7** / **A** key to select particular option and then press **A** key to quit programming.

To select reset option :

Press **7** / **A** key to select particular option and then press **4** key for 1.5 sec to quit programming.

1. Programming for Set point1 :

Press Key	Lower Display			
D for 1.5 sec	Applicable when Relay1 in On delay /			
to Enter Set1	Interval mode. Set point 1			
programming. (Auto program				
out after 2min)				
Default : 10sec.	Applicable when Relay1 in Cyclic mode.			
TUSEC.	Start Time ON Time OFF Time			
	<u>(1-5E)⇒(1-01)⇒(1-0F</u>			
	ि हिंदे हैं है			
	Exit Set point 1 programming			
2. Programming for Set point2 :				
Press Key	Lower Display			
🛡 for 1.5 sec	Applicable when Relay2 in On delay /			
to Enter Set2	Interval mode. Set point 2			
programming. (Auto program				
out after 2min)	;3666;			
	<u>1234</u>			
Default : 9sec.	Applicable when Set2 in Cyclic mode.			
00001	Start Time ON Time OFF Time			
	<u> 2-SE →[2-0N]→[2-0F</u>]			
	ाटउप ाटउप ाटउप 🖬			
	* Exit Set point 2			
	programming			
	Applicable when Set2 in Batch mode.			
	Set point 2			
	Set point 2			
3. Programm	Set point 2			
3. Programm Press Key	Set point 2 [SEL2] [1234] *			

for 1.5 sec Batch Set point 1 Δ to Enter 565 675 B programming H Ð for Lower Exit programming Exit programming display options (Auto program ۵ out after 2min)

4. Programming for Reset :



NOTE : * sign indicates that the display blinks.

Read Function

- Temporary display : Lower display shows parameter name for 1sec and then its value.
- 1. Reading of set1 parameters



NOTE: When viewing 6 digit batch value, lower display LSD dp blinks and batch value is displayed for 3 sec. If lower display is selected as batch and batch value exceeds 4 digits, the lower display LSD dp is on continuously indicating that the batch value has exceeded 4 digits.



PROGRAMMING - COUNTER

(→ Temporary display : Lower display shows parameter name for 1sec. and then its value. Enter programming as per the given procedure.

To program set points :

Press D to select the digit. The selected digit blinks. Press O / A key to change its value. Press A key to go to the next parameter (if applicable). If the edited parameter is the last parameter, the unit will quit programming.

To select lower display options :

Press / A key to select particular option and then press key to guit programming.

To select reset option :

Press 7 (key to select particular option and then press 2 key for 1.5 sec to guit programming.

1. Programming for Set point 1 :



2. Programming for Set point 2 :

Note : Set2 should always be less than Set1, except when Set 2 is in Batch mode.

	Press Key	Lower Display	2.
	Applicable when Set2 in On delay / Interval mode.	Р	
	for 1.5 sec to Enter / Exit online	Set point 2	
	programming for Set2.	1234	valu
	(Auto program out after 2min)	Applicable when Set2 in Batch mode.	Rea
	Default : 90.	Set point 2	pres 3 se
		1234	

3. Programming for Lower display options.



4. Programming for Reset.



Read Function





2. Reading of set2 parameters



3. Reading Batch



NOTE : When viewing 6 digit batch value, lower display LSD dp blinks and batch value is displayed for 3 sec. If lower display is selected as batch, and batch value exceeds 4 digits, the lower display LSD dp is on continuously indicating that the batch value has exceeded 4 digits.

COUNTER MODE

1. ON Delay (Overrun mode)



2. Interval (Overrun mode)



3. Auto Reset (Non Overrun mode)



4. Time Pulse Reset (Non Overrun mode)





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

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