USER'S OPERATING MANUAL FOR PROCESS INDICATOR JUMBO DISPLAY PRESET COUNTER

(Models:- KTC - JD - 2 / KTC - JD - 4)

KTC-JD-2
(2 Inch)

KTC-JD-4
(4 Inch)

SPECIFICATIONS: -

1. DISPLAY TYPE : 4-Digit 7 segment LED (RED)

Model no.	KTC-JD-2	KTC-JD-4	Display Colour
Display height (PV)	2.7"	4"	Red

2. Control Inputs : a] Count Input
   b] Reset Input

3. Reset time : < 100 ms

4. Outputs : 5 Amp @ 230VAC Relay

5. Reset : a] Front switch (Programmable)
   b] Remote Reset (via rear terminals)
   C] At On power (Programmable)

6. ENVIRONMENTAL
   - Operating Range : 0 ~50°C, 5~90% Rh
   - Storage Humidity : 95% Rh (Non-condensing)

7. POWER SUPPLY
   - Supply Voltage : 90~270VAC, 50/60Hz.
   - Consumption : 4W Maximum.

8. PHYSICAL
   - Housing : ABS Plastic.

Model no.	KTC-JD-2	KTC-JD-4
Weight	1.5 Kg	4.25 Kg

OVER ALL DIMENSIONS & PANEL CUT OUT (IN MM)

MODEL:-KTC- JD-2 / KTC-JD-4

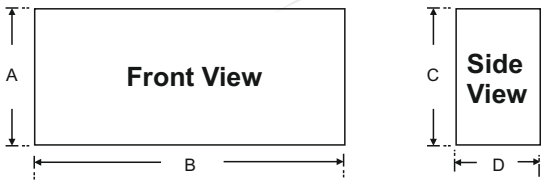


TABLE : 1

Dim / Model	A	B	C	D
KTC-JD-2	120	230	120	80
KTC-JD-4	165	390	165	50

SAFETY INSTRUCTION :-

GENERAL

- The controller must be configured correctly for intended operation. Incorrect configuration could result in damage to the equipment or the process under control.
- The controller is generally part of control panel and in such a case the terminals should not remain accessible to the user after installation.

MECHANICAL

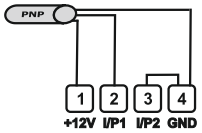
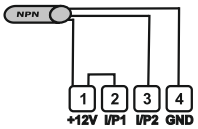
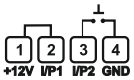
- The Controller in its installed state must not come in close proximity to any corrosive/combustible gases, caustic vapors, oils, steam or any other process by-products.
- The Controller in its installed state should not be exposed to carbon dust, salt air, direct sunlight or radiant heat
- Ambient temperature and relative humidity surrounding the controller must not exceed the maximum specified limit for proper operation of the controller.

ELECTRICAL

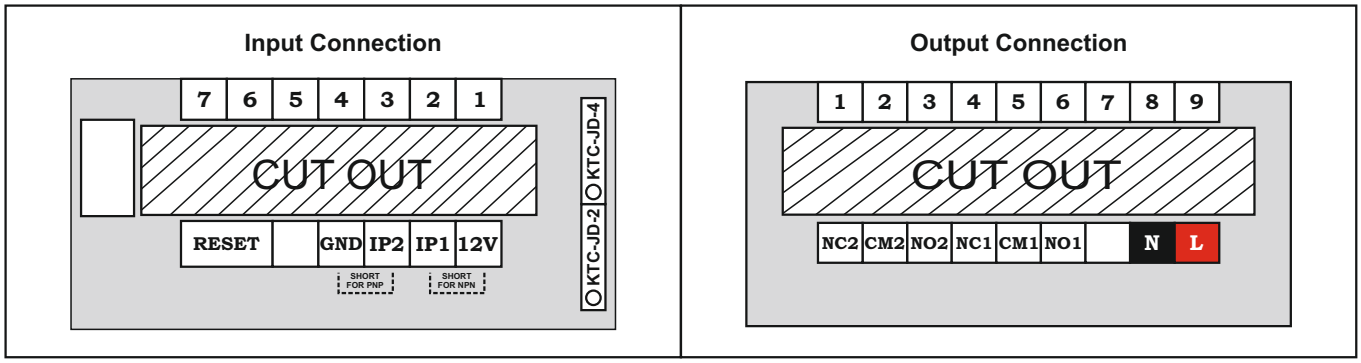
- The controller must be wired as per wiring diagram & it must comply with local electrical regulation.
- Circuit breaker or mains s/w with fuse (275V/1A) must be installed between power supply and supply terminals to protect the controller from any possible damage due to high voltage surges of extended duration.
- Circuit breaker and appropriate fuses must be used for driving high voltage loads to protect the controller from any possible damage due to short circuit on loads.
- To minimize pickup of electrical noise, the wiring for low voltage DC and sensor input must be routed away from high current power cables. Where it is impractical to do so, use shielded ground at both ends.

TYPICAL APPLICATION :

KTC - JD - 2 / KTC - JD - 4

PROXIMITY (PNP) AS A START INPUT	PROXIMITY (NPN) AS A START INPUT	CONTACT / SWITCH AS A START INPUT
		

TERMINAL DIAGRAM:



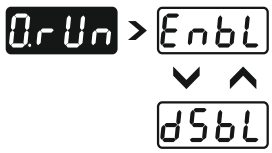
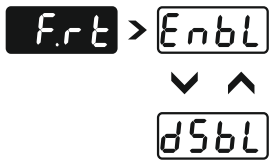
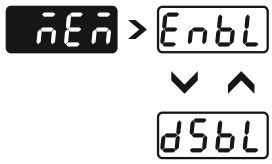
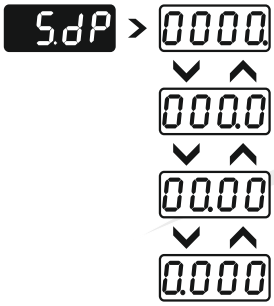
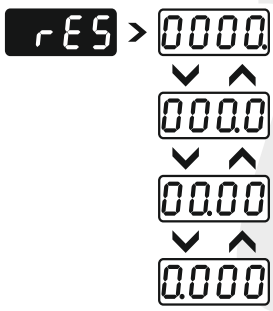
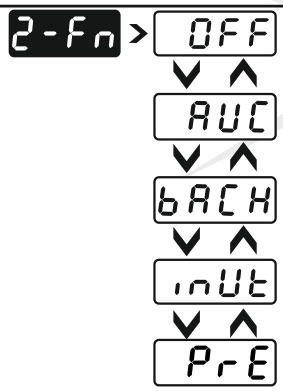
PROGRAMMING:-

CONFIGURATION LIST:-

(1) To enter in this mode, Press and hold SET & UP key simultaneously for 3 sec.
(2) Press UP or DOWN key to scroll between parameter options.
(3) Press SET key to store the current parameter & move on to the next parameter.

(All following selected parameter's code shown in shaded will be displayed for 1 sec. followed by their values / options)

PARA METER	DISPLAY	DESCRIPTION	DEFAULT
CONFIG LOCK CODE	LOCK > 0	Set this parameter to 15 (Default LOCK CODE) to access Configuration List. User has a choice to set different Lock Code in the range 1 ~ 9999 via USER LOCK CODE in Configuration List.	0
Input Frequency	FrEQ > ULoW	**Input Frequency :- User can select the frequency of count pulse at the input terminal. This feature is useful in avoiding noise signal.**	Medium
	LoW	**Very Low :- If selected count input frequency is 3Hz.**	
	nEd	**Low :- If selected count input frequency is 30Hz.**	
	HIGH	**Medium :- If selected count input frequency is 100Hz.**	
	UHIG	**High :- If selected count input frequency is 1000Hz.**	
		Very High :- If selected count input frequency is 2500Hz.	
Output 1 Function	1-Fn > On	**On Delay :- During Counter is in run mode; Output 1 still remain OFF. At the completion of count; Output 1 change its state(ON) & remain in that state until user press RESET or next cycle begins(in auto reset mode & TPR mode).**	On Delay
	OFF	**Off Delay (Interval) :- During Counter is in run mode; Output 1 get energised(ON). At the completion of count; Output 1 change its state(OFF) & remain in that state until user press RESET or next cycle begins(in auto reset mode & TPR mode).**	
Count Direction	dIr > UP	**Count Direction :- This parameter allows user to set count direction in run mode as follows**	Down
		Up Count :- If selected counting starts from 0000 up to set count in ascending order.	
	dn	**Down Count :- If selected; counting starts from set count to 0000 in descending order.**	
Counter Mode	Cn > Lo	**Latch Output Mode :- If selected; When actual counts reaches its set value ,Relay O/Ps changes its state & remains in this state until reset key or rear reset pressed.**	Latch Output Mode (LO)
	ArSt	**Auto Reset Output Mode :- If selected; When relay contacts change its state after the set value of count has been reached; it will remain in same position & wait for end of auto reset time. On completion of this time, counter will reset i.e. relay contact positions initialize depending on 'ON' or 'OFF' Delay mode selected &counter will start counting again.**	
	tPr	**TPR Output Mode :- If selected; when relay contacts change its state after the set value of count has been reached; Relays will remain in this state for 'TPR' time. On completion of this time, relay contact positions initialize depending on 'ON' or 'OFF' Delay mode selected. Unlike Auto reset mode, counting continues during the TPR time.**	

PARA METER	DISPLAY	DESCRIPTION	DEFAULT
Over Run Mode		Over Run Mode :- This parameter occurs only if Latch Output mode with UP Counting Selected.	Enable
		Enable :- If selected; Counting continues after the set value of count is reached. Only the Output remains latched thereafter until count is reset.	
		Disable :- If selected; Counting stops after the set value of count is reached. The o/p & count remains latched thereafter until count is reset.	
Front Reset		Front Reset :- This parameter allows the user to Enable or Disable front Reset function. This feature prevents un-authorized attempt to Reset the Counter during Run mode.	Enable
		Enable :- If selected; The Counter can be reset through front panel by pressing Down key	
		Disable :- If selected; The Counter can not be reset through front panel by pressing Down key. Only Remote Reset at back terminal is allowed.	
Memory Backup		Memory Backup :- This parameter allows the user to Enable or Disable Memory Backup function.	Enable
		Enable :- If selected; At the time of Power Failure Running Count value is Stored in Memory.	
		Disable :- If selected; At the time of Power Failure Running Count will not be Stored in Memory. Counter will be Reset at next power On.	
Select Decimal Point		Select Decimal Point :- User can set position of decimal point for scale factor. Position of decimal point can be shifted by using the shift key.	0000.
Scale Factor		Scale Factor :- User can set the value of scale factor. The last stored value of scale with decimal position will be display. Use Up / Down / Shift Key to change scale factor value. In run mode, on receiving Count Pulse the counter will Increment or Decrement count value by the scale factor & Count Direction provided by the user.	0001
Resolution		Resolution :- This parameter doesn't appear if the Selected Decimal position for scale is at 4th position (0000.). User can set screen resolution for RUN Mode. Note: Max screen Resolution is equal to resolution for scale factor.	0000.
Output 2 Function		OFF: If selected , OP2 will be completely OFF.	Auxiliary
		AUXILIARY: If selected , OP2 can be used as Auxiliary contact. Both the relay output will ON/OFF together as per the ON/OFF Delay.	
		BATCH: If selected , Output2 used as a Batch mod. When Batch count EQUAL S.Bch output2 will on & the output of second relay will remain ON until user press the reset key for 3second when Batch count displayed.	
		INVERT: If selected , OP2 logic will be inverse of OP1. Both the relay output will ON/OFF visa-versa as per the ON/OFF Delay.	
		PRE SETPOINT: If selected , OP2 used as Independent setpoint , when running counts equal to "s.ct2" OP2 will oparate depending on the function of OP1.	
USER LOCK CODE		Default USER LOCK CODE is 15 to access Control & Configuration List. User has a choice to set its own USER LOCK CODE between 1 to 9999, this is to prevent unauthorized access of Control & Configuration List.	15

User List :-

1) To access the User List Press 'SET' key.
2) Press 'UP / DOWN' Key to change the value.
3) Press 'SET' Key to store the data & move on to next parameter.

(All following selected parameter's code shown in shaded will be displayed for 1 sec. followed by their values / options)

Parameter	Display	Description	Default
Set Count	S.Cnt > 0005	In RUN mode, Press 'Set' key to set count value. 'S.CNT' will be displayed on lower display & last stored/default value of 'set count' will be displayed on upper display. User can change this value by using Up/Down/Shift key. Press ''Set' key to store Set value & move to next parameter.	5
Set Batch	S.bCH > 0005	Set Batch :- This parameter will appears only if Op2 is selected as Batch Mode. After achieving Batch set point output 2 will be turned On (Range from 1 to 9999).	5
Auto Reset Time	rt > 005.0	Auto Reset Time :- It will appears only if Selected counter mode is Auto Reset or TPR. User can set Auto Reset time form 0.1Sec to 99.9Sec. via SET & RST Key.	5.0

View List :-

1) To access the View List press & release 'SHIFT' key Once.

Parameter	Display	Description	Default
Batch View	b.Cnt > 0005	Batch View :- This parameter will appears only if OP2 is selected as Batch Mode. Total Batch Count will be shown here. Press Reset Key for 3 Sec to Reset Batch Count.	5

Mfgd by: Innovative Instruments & Controls LLP
338, New Sonal Link Service Industrial Premises Co-op Society Ltd,
Building No.2, Link Road, Malad (W), Mumbai - 400064.
Tel: 022-66939916/17/18;
E-mail : sales@itherm.co.in
Website : www.itherm.co.in