Cat. No. KTC-B14

KTC

PRESET TIMER/ COUNTER

INSTRUCTION SHEET

Thank you for selecting INNO for your requirement.

This sheet describes the procedure and precautions required for installing and operating the product.

Kindly read this sheet before operating or installing the product. Store the sheet for future reference.

CAUTION FOR SAFETY

ⓘ Please keep this sheet for review before use of unit.

ⓘ Please observe the following:

⚠ WARNING
Serious injury may occur if instructions are not followed

⚠ CAUTION
Product failure or injury can occur if instructions are not followed

⚠ WARNING

1. This is not a safety product and is not to be used with machinery that requires use of safety control.
2. Do not disassemble or modify this unit. It may lead to electric shock/ fire.

Do not connect touch the terminals when power is on.
RISK OF ELECTRIC SHOCK!

⚠ CAUTION

1. This unit shall not be used outdoors or in places with high sunlight, humidity or other harsh conditions.
2. Do not use the unit in places where there is flammable or explosive gas.
3. Do not use this unit beyond rated power.
4. Please check the unit for wrong wiring before power on.
5. Do not use this unit in places where there is vibration or impact.
6. Do not use water or oil based detergent for cleaning the unit.
7. Do not use unit in places with high EM noise as it may lead to product malfunction.
8. Do not use excessive force to tighten the unit and do not hammer the unit.
9. Please process it as industrial waste and dispose responsibily.

SPECIFICATIONS

*For details on Customized/ Special Models contact Seller

Output Type		Relay Output		Relay + RS-485 Output	
*Models	48 x 48 mm	KTC-SR-24DC	KTC-SR-230AD	KTC-SM-24DC	KTC-SM-230AD
	96 x 48 mm	KTC-WR-24DC	KTC-WR-230AD	KTC-WM-24DC	KTC-WM-230AD
	72 x 72 mm	KTC-MR-24DC	KTC-MR-230AD	KTC-MM-24DC	KTC-MM-230AD
Power Supply		24 VDC	100-240 VAC/ DC	24 VDC	100-240 VAC/ DC
Ripple		±10% (FS)			
Power Consumption		35mA at 220 VAC			
Display		Dual Line 6 digit LED (PV- Red; SV- Green)			
Input	Voltage Input	Input impedance 5.4KΩ; H- 5~30VDC, L- 0~2VDC			
	No- voltage Input	Short- circuit impedance 1KΩ			
	Residual Voltage	max. 2VDC			
Min. Signal Width		INA, INHIBIT, RESET, BATCH**, RESET selectable 1 or 20ms			
Max. Counting Speed		1, 30 Hz, 1, 5, 10 KHz (selectable)			
Timer		max. ±0.01% ; ±0.05 secomd			
Data Retention		10 Years			
Auxilary Voltage Output		12 VDC, 100mA			
One- shot Output		10/ 50/ 100/ 200/ 500/ 1000/ 2000/ 5000 ms			
Output Type		2 Relay		2 Relay + RS-485	
Control Output Specification		250 VAC, 3 A (Resistive Load)			
Contact Life		max. 100,000 times (NO: 250 VAC, 3A; NC: 25- VAC, 2A)			
Dielectric Strength		min. 100MΩ at 500 VDC			
Dielectric		At power terminals 2000 VAC, 50Hz, 1 min			
Interferance (AC Power)		±2kV Square- wave generator interference (width of pulse:1 µs			
Vibration Resistance		max. 0.75mm amplitude at 10-55 Hz in X, Y, Z directions for 10 minutes till destruction			
Shock Resistance		10 G (X, Y, Z in each direction for three times)			
Ambient Temperature		Operation: -10° ~ 50°C; Storage: -25° ~ 65°C (non- freezing; non- condensing)			
Ambient Humidity		Operation: 45 ~ 80% RH; Storage: 35 ~ 85% RH (non- condensing)			
Protection Class		IP20, Front panel IP65			
Weight		48 x 48: 149 g; 48 x 96: 159 g; 72 x 72: 253 g			
Material		Front Panel: PU Housing: ABS or Equiv.			

**BATCH counting not available in 48x48mm Models.

PRECAUTION FOR SAFE USE

1. Provide sufficient space around the unit to allow for heat dissipation.
2. If several units are mounted side by side or vertically, the heat disipation will cause the internal temperature of the products to rise. Compensate for the same by provide a cooling fan.
3. Install the product horizontally.
4. Mount to a panel with 1~8mm thickness only.
5. In order to prevent inductive noise, wire the lines connected to the product seperately from the power lines.
6. Allow the product to operate without load for atleast 15 minutes.
7. Do not connect anything to the unused terminals.
8. Install an external circuit breaker or switch that confirms to IEC60947-1 and IEC60947-3 requirements and label them clearly so that the operator can quickly turn OFF power.
9. Use only specified size of tinned crimp terminals of size M3, width: 5.8mm max.
10. Avoid use of bare wire for connection. If used length of exposed wire is to be betweed 6 ~8mm.

CAUTION FOR SAFETY

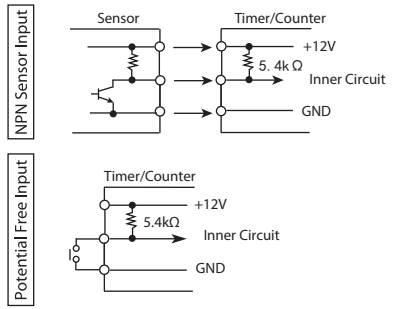
⚠ CAUTION

1. Do not allow pieces of metal, wire clippings or metal shavings from installation to enter the product. Doing so may result in product failure.
2. Do not disassemble the unit when connected to power supply.
3. Do not use the equipment for measurements within measurement categories II, III, IV (according to IEC61010-1). Doing so may result in unexpected operation and may cause damage to equipment.
4. Tighten the screws on the teminal block securely using the correct amount of torque. Loose screws may cause improper operation.
   Terminal Block Screws Tightening Torque = 0.43 ~ 0.58 Nm

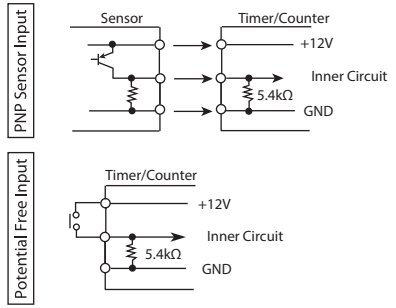
NOTE:
Operating instructions are available seperately in the Operation Manual.
Download the OPERATION MANUAL at *"www.inno.sg/ktc_manual"*

CONNECTION DIAGRAM

♦ Input Connection (NPN)

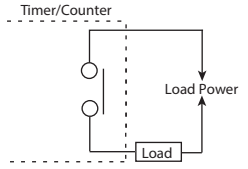


♦ Input Connection (PNP)

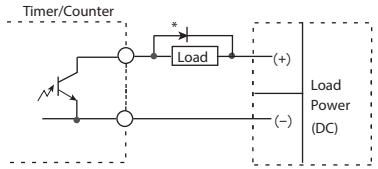


♦ Output Connection

Relay Output



SSR Output



Note - *
Use proper load and power for load not to exceed ON/OFF capacity (30VDC max.; 100mA max.) of solid state output. Be sure not to apply reverse polarity to power.
When using inductive load, a surge absorber (diode, varistor etc.,) must be connected between both sides of the load.

Represented by:
Intech Systems Chennai Pvt. Ltd.
S-2, Guindy Industrial Estate
Chennai - 32. Ph: 044 4353 8888
Email: info@intechchennai.com
www.inno.sg

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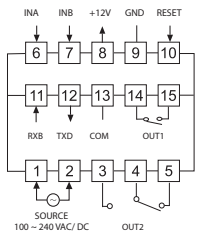
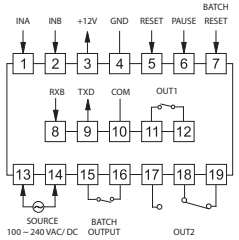
CONNECTION DIAGRAM (Contd.)

Terminal Connections

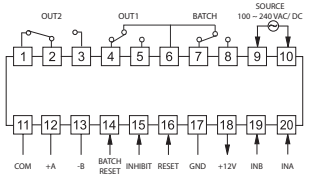
♦ KTC-S



♦ KTC-M

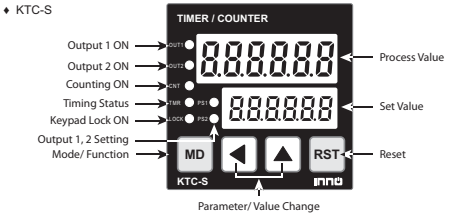


♦ KTC-W

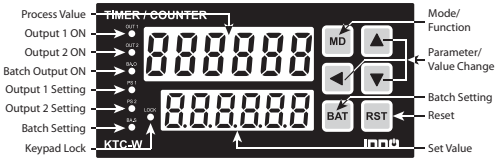


NOMENCLATURE

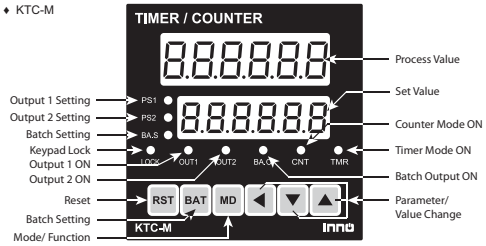
♦ KTC-S



♦ KTC-W

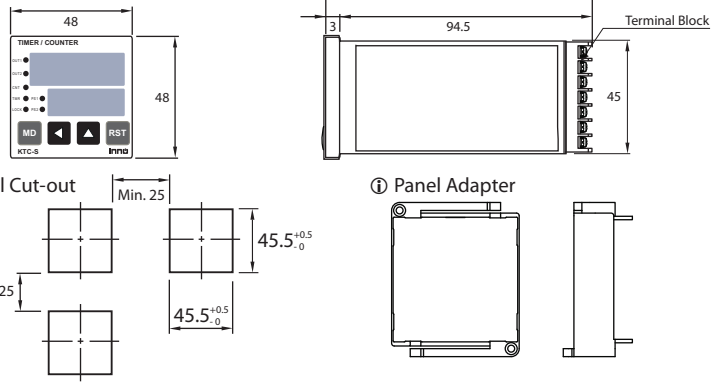


♦ KTC-M



DIMENSIONS

♦ KTC-S _ - _



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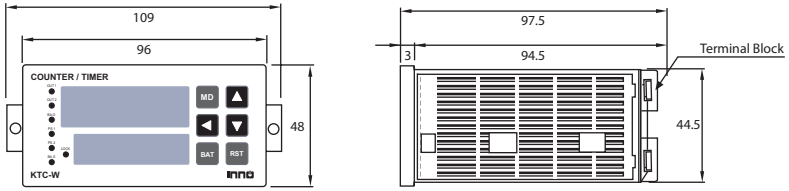
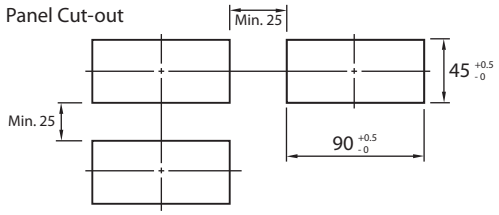


Panel Cut-out



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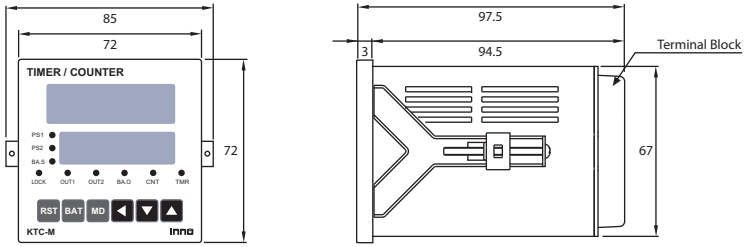
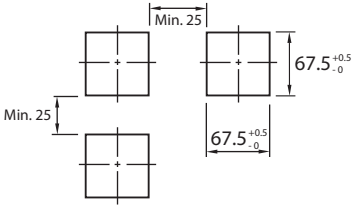


Panel Cut-out



Represented by:

Intech Systems Chennai Pvt. Ltd.
S-2, Guindy Industrial Estate
Chennai - 32. Ph: 044 4353 8888
Email: info@intechchennai.com

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