# CG Series Digital Counter User's Manual



**Features:**
- Dual line 6 digit bright LED display
- Several optional panel size:48x48, 48x96, 72x72
- Single input counting , one relay output
- Manual reset, automatic reset, key lock and power down memory function.
- Settable counting coefficient, NPN or PNP input selectable
- Widely applied to timber processing, food machinery , packing machinery , steel processing industries , etc.

For your safety, please read following content carefully before you use the meter!

## ■ Safe Caution

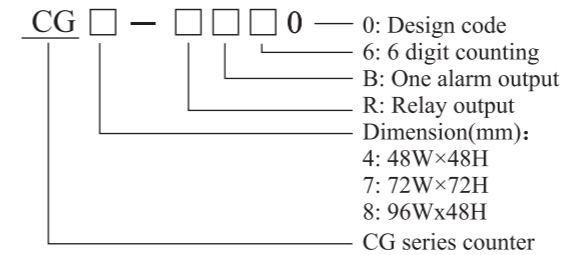| ※ Please read the manual carefully before you use the temperature controller. |
| --- |
| ※ Please comply with the below important points. |
| ⚠ Warning　　An accident may happen if the operation does not comply with the instruction. |
| ⚠ Notice　　An operation that does not comply with the instruction may lead to product damage. |
| ※ The instruction of the symbol in the manual is as below. |
| ⚠ An accident danger may happen in a special condition. |

## ⚠ Warning

1. A safty protection equipment must be installed or please contact with us for the relative information if the product is used under the circumstance such as nuclear control, medical treatment equipment, automobile, train, airplane, aviation and equipment etc. Otherwise, it may cause serious loss, fire or person injury.
2. A panel must be installed, otherwise it may cause creepage (leakage).
3. Do not touch wire connectors when the power is on, otherwise you may get an electric shock.
4. Do not dismantle or modify the product. If you have to do so, please contact with us first. Otherwise it may cause electric shock and fire.
5. Please check the connection number while you connect the power supply wire or input signal, otherwise it may cause fire.

## ⚠ Caution

1. This product cannot be used outdoors. Otherwise the working life of the product will become shorter, or an electric shock accident may happen.
2. When you connect wire to the power input connectors or signal input connectors, the moment of the No.20 AWG (0.50 mm2) screw tweaked to the connector is 0.74n.m - 0.9n.m. Otherwise the connectors may be damaged or get fire.
3. Please comply with the rated specification. Otherwise it may cause electric shock or fire, and damage the product.
4. Do not use water or oil base cleaner to clean the product. Otherwise it may cause electric shock or fire and damage the product.
5. This product should be avoid working under the circumstance that is flammable, explosive, moist, under sunshine, heat radiation and vibration. Otherwise it may cause explosion.
6. In this unit it must not have dust or deposit, otherwise it may cause fire or mechanical malfunction.
7. Do not use gasoline, chemical solvent to clean the cover of the product because such solvent can damage it. Please use some soft cloth with water or alcohol to clean the plastic cover.
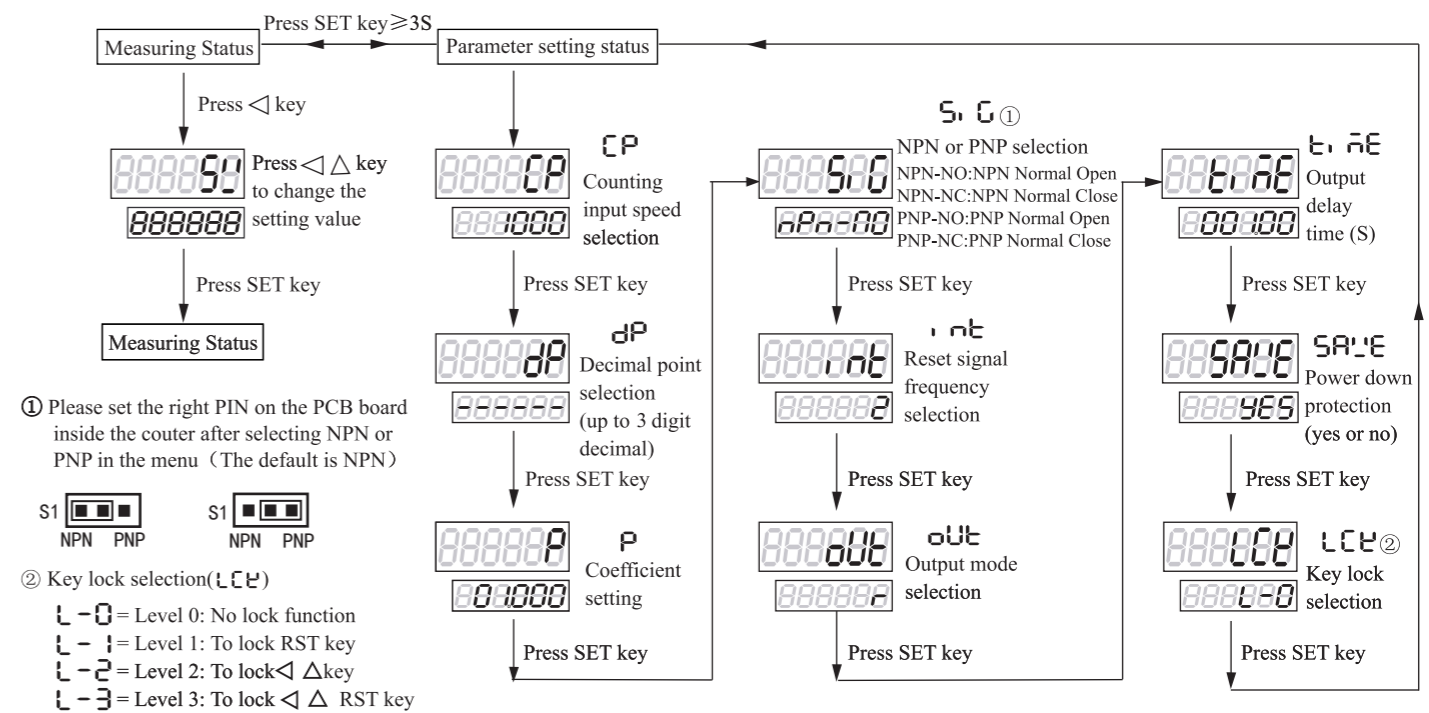
## 1. Model Indication



$\text{CG} \square - \square\square\square 0$

- 0: Design code
- 6: 6 digit counting
- B: One alarm output
- R: Relay output
- Dimension(mm)：
  - 4: 48W×48H
  - 7: 72W×72H
  - 8: 96Wx48H
- CG series counter

| Model | Dimension(mm) | Counting Digit | Alarm Output | Power Supply |
| --- | --- | --- | --- | --- |
| CG4-RB60 | 48W×48H×100L | 6 | One upper limit alarm | AC/DC 100～240V |
| CG7-RB60 | 72W×72H×100L | 6 | One upper limit alarm | 220VAC |
| CG8-RB60 | 96W×48H×100L | 6 | One upper limit alarm | 220VAC |

## 2. Technical Parameter

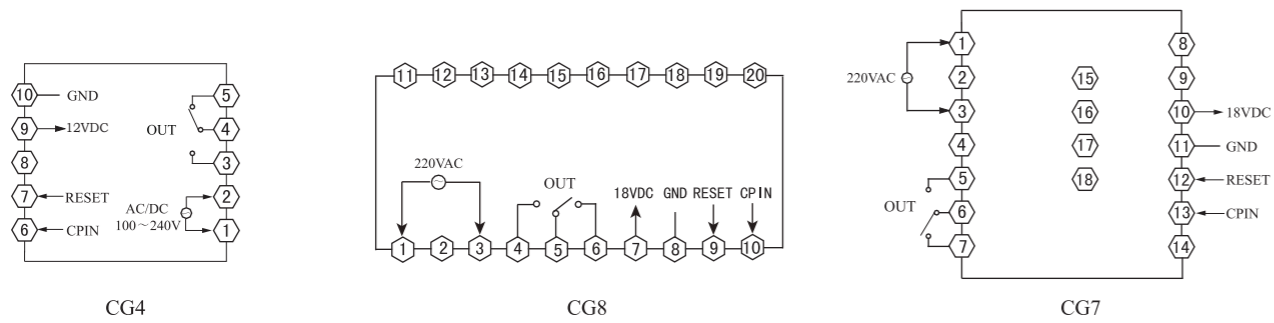| Power Supply | AC 220 V±10%  50Hz/60Hz |
| --- | --- |
| Total Power Consumption | ≤4W |
| Relay Capacity | 250VAC/3A |
| Output Power | DC18V±5V(≤25mA) |
| Insulation Resistance | ≥20MΩ |
| Insulation Strength | 1.5KV/1M |
| Counting Input Speed | ≤1/30/300/1000Hz (can be selected) |
| Counting Range | 0.001～999999 |
| Delay Time | 0.01～600.00s |
| Coefficient Setting Range | 0.001～9999.99 |
| Reset Signal Frequency Selection | 2, 10, 100, 500Hz selectable (This is the upper limit selection for effective reset signal frequency) |

## 3. Operation Menu



① Please set the right PIN on the PCB board inside the couter after selecting NPN or PNP in the menu（The default is NPN）

② Key lock selection(LCР)

- L-0 = Level 0: No lock function
- L-1 = Level 1: To lock RST key
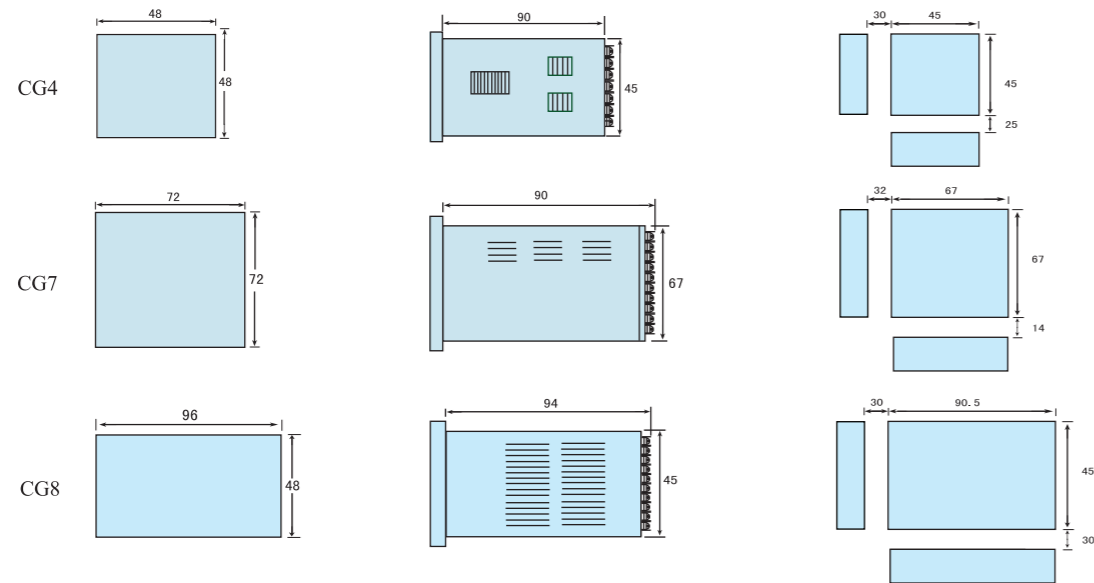- L-2 = Level 2: To lock ◁ △key
- L-3 = Level 3: To lock ◁ △ RST key

## 4. Counter Output Mode Diagram

There are 4 types of output modes for option, N, F, R, C.

| Output mode setting | N<br>Reset<br>Counting value SET<br>Display 0<br>Output | F<br>Reset<br>999999<br>Counting value SET<br>Display 0<br>Output | R<br>Reset<br>Counting value SET<br>Display 0<br>Output | C<br>Reset<br>Counting value SET<br>Display 0<br>Output |
|---|---|---|---|---|
| Action after Counting up | Output and the counting value will remain till reset signal. | Counting value goes on, output will remain till reset signal. | When counting value reaches setting value, the display value and output will remain till the setting delay time, then reset to next counting automatically. | The counter will reset the counting value when it reaches the setting value, but the output will remain till the setting delay time. |

## 5. Dimension & Connection

Note: Please subject to the connection drawing on the counter if any changes.