

# G62 Series (Electronic Preset Counter)

## INSTRUCTION MANUAL

- **ELECTRONIC PRESET COUNTER,**  
**4 DIGITS**
- **2 LINE LED DISPLAY**
- **EASY OPERATION**  
**(INDIVIDUAL DIGIT KEYS)**
- **POWER SUPPLY (85 - 264 VAC)**
- **DUST / SPLASH PROOF**



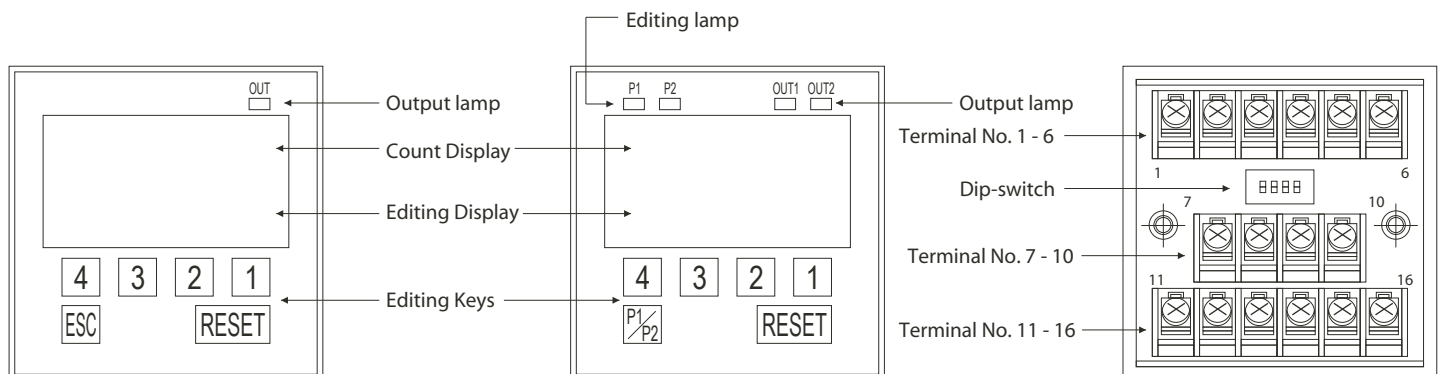
G62-101  
(1 Level Preset)

G62-111  
(1 Level Preset)

### ■ MODELS

Models	Figures	Preset Level	Input	
G62-101	4	1	1 Input	Add / Subtract Input
102			2 Input	Quadrature / Individual add, subtract Input
111		2	1 Input	Add / Subtract Input
112			2 Input	Quadrature / Individual add, subtract Input

### ■ FRONT PANEL AND REAR TERMINALS



**1 Level Preset**  
G62-101, 102

**2 Level Preset**  
G62-111, 112

**Rear Terminals**  
Common to all models

1 ~ 4

Individual digit setting keys for preset editing.  
Preset editing is proceeded by pressing keys corresponding to each digit.

ESC

Used to exit from preset editing mode. (G62-101, 102)

P<sub>1</sub>/P<sub>2</sub>

Used to select either P1 editing or P2 editing (G62-111, 112) and also used to exit from preset editing mode.

RESET

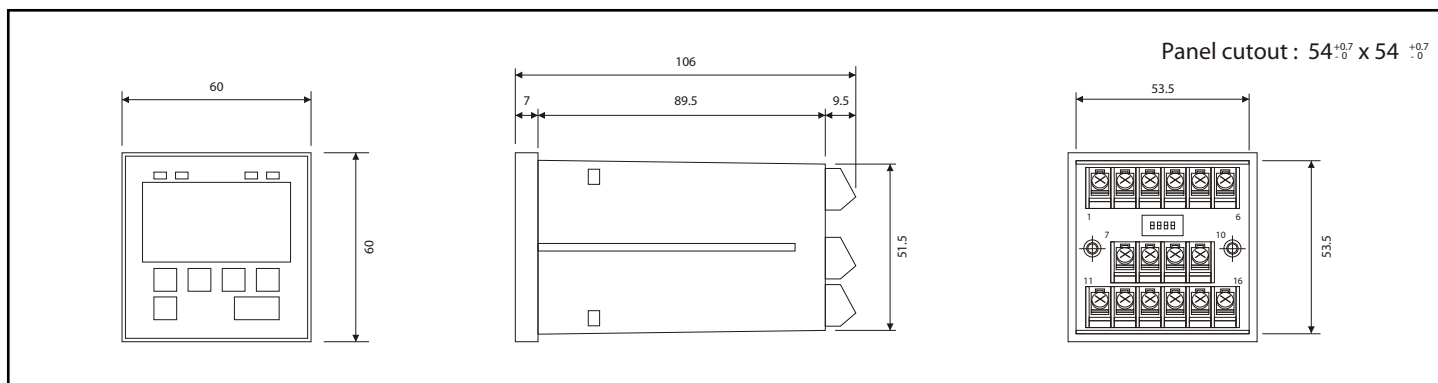
Resets present count value to 0. In case sub. input feature, it causes present count value to the preset value.

## ■ SPECIFICATIONS

Models	G62-101, 102	G62-111, 112
Preset Level	1 preset level	2 preset level
Display	Red LED, Count figures : 10.0 x 5.5mm, Preset figures : 8.0 x 4.0mm	
Editing Range	1 - 9999	
Input	1 input type : Add / Sub input (selected by dip-switch) 2 input type : Quad. / Individual add, sub. input (selected by dip-switch)	
Input Method	Non-contact input : Open collector / Contact input : Relay, Microswitch	
Count Speed	Non-contact input : 10 kHz * / Contact input : 25 Hz maximum	
Pulse Width	Non-contact input : 50 μsec minimum. / Contact input : 20 msec minimum	
Make (Duty)	1:1	
Output	Relay output : N.O. contact only (250 VAC, 0.5A / 30VDC, 2A maximum Load) Non-contact input : NPN open collector (30 VDC, 100mA maximum)	
Output Time	0.1 sec or latch. (In auto-reset mode, output time at the final preset level would be 0.1 sec, even if edited to latch).	
Output Delay	10kHz : 5msec maximum    6 kHz : 30msec maximum (Prescale feature)	
Reset	Front key reset, External reset, Auto-reset	
Inhibition Function	When the Inhibit in terminals are turned on, prescale editing, preset editing, front key resetting and counting are disabled.	
Preset Lamp	None	Turns on while each preset value are shown on the display.
Operation Mode	Overrun / Auto-reset	
Output Lamp	Turns ON during output time	
Memory	E <sup>2</sup> PROM	
Power Source for Sensor	12 VDC 100mA maximum	
Power Source	85 - 264VAC	
Power Consumption	Approximately 5VA	
Operating Temperature	-10 - 50°C (Non-freezing)	
Operating Humidity	45 - 85%RH (Non-condensing)	
Weight	Approximately 240g	Approximately 240g

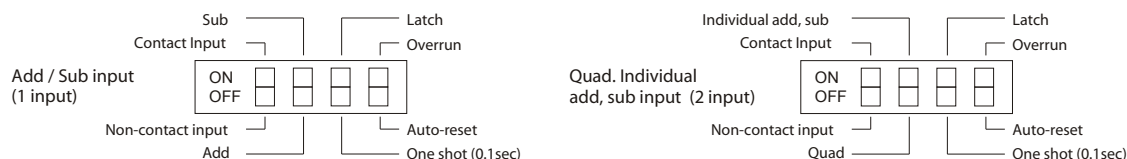
\* If rotary encoder quadrature is 90° ± 20° is used, maximum count speed should be 10 KHz, and if 90° ± 40°, that should be 6 KHz.

## ■ DIMENSIONS - MILLIMETERS



## ■ DIP - SWITCH

\* Selection of input method, reset method, or output time.  
Turning dip-switch ON / OFF should be done during power off.



# OPERATIONS (Check key protection terminal No. 10 to be off before operating.)

## 1 Level Preset G62-101, 102

**1 ~ 4**

Set a desired preset value by individual digit setting keys. By pressing one of **1 ~ 4** keys, the digit corresponding to pressed key blinks and preset value can be edited. Then, edit desired numerical values on each digits. Blinking of digits stops automatically 3 secs after editing for final numerical value has been completed, and preset value is fixed then.

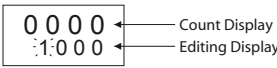
**ESC**

Press **ESC** key when editing must be stopped during entering preset value. The digits to be edited blink while preset value is edited, and the edited values are fixed automatically in 3 secs after you hand have released from the key pressed lastly. Therefore, **ESC** key is valid while the digits blink.

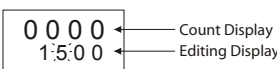
### < Example editing >

#### When preset value is set to 1500


Press **4** key one time. Then, the 4th digit of editing display blinks and displays 1.



Press **3** key five times. Then, the 3rd digit of editing display blinks and displays 5.



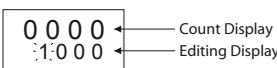
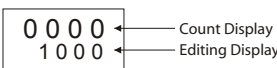
Blinking of the digit stops automatically in 3 secs. after key setting has been completed.



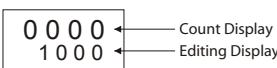
The edited value is fixed 3 secs. later.

### < Example editing > When preset value is set to 1000 on subtract input mode.

Press **4** key one time. Then, the 4th digit of editing display blinks and displays 1. Blinking of the digit stops automatically in 3 secs. after key setting has been completed.

Press **RESET** key to show the preset value on count display



Editing is completed

(Subtracts one from 1000 and outputs when reaches to 0)

Everytime pressing individual digit setting keys **1 ~ 4**, it adds one to the values of the digits corresponding to pressed keys. Also, in case that the keys are kept to press, the values of the digits corresponding to pressed keys are added one automatically by Auto-increment function.

## 2 Level Preset

G62-111, 112

**P1/P2**

Press **P1/P2** key to select either P1 editing or P2 editing. Every time key is pressed, P1 and P2 are alternated.

**1 ~ 4**

Set a desired preset value by individual digit setting keys. By pressing one of **1 ~ 4** keys, the digit corresponding to pressed key blinks and preset values can be edited. Then, edit desired numerical values on each digits. Blinking of digits stops automatically 3 secs after editing for final numerical value has been completed, and preset value is fixed then.

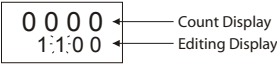
\* When editing must be stopped during entering preset value, press **P1/P2** key. **P1/P2** key is valid as a cancellation key while the digits blink

### < Example editing >

#### When P1 is set to 100, and P2 is set to 200.

Press **P1/P2** key to turn the P1 editing lamp on.

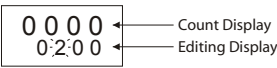
Press **3** key one time. Then, the 3rd digit of editing display blinks and displays 1.



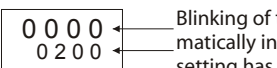
Blinking of the digit stops automatically in 3 secs. after key setting has been completed.

Press **P1/P2** key to turn the P2 editing lamp on.

Press **3** key two times. Then, the 3rd digit of editing display blinks and displays 2.



The edited value is fixed 3 secs. later.



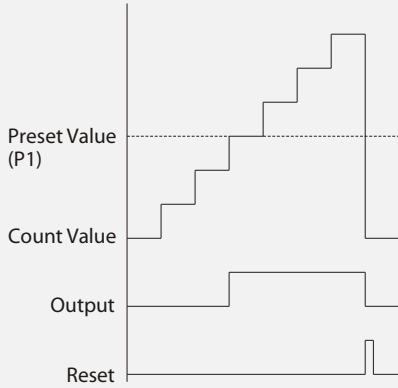
For the selection to display either P1 or P2 value on editing display, press **P1/P2** key.

Everytime pressing individual digit setting keys **1 ~ 4**, it adds one to the values of the digits corresponding to pressed keys. Also, in case that the keys are kept to press, the values of the digits corresponding to pressed keys are added one automatically by Auto-increment function.

# SAMPLE OPERATION

## 1 level preset, overrun mode

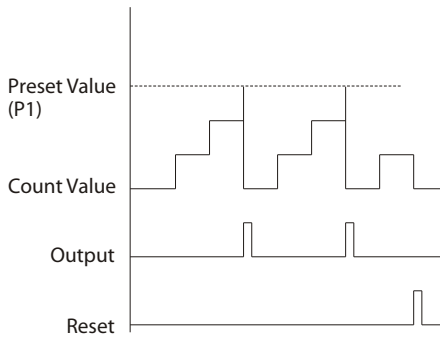
(Add / Quad / Individual add, sub input)  
< Output time : Latch>



## 1 level preset, auto-reset mode

(Add / Quad / Individual add, sub input)

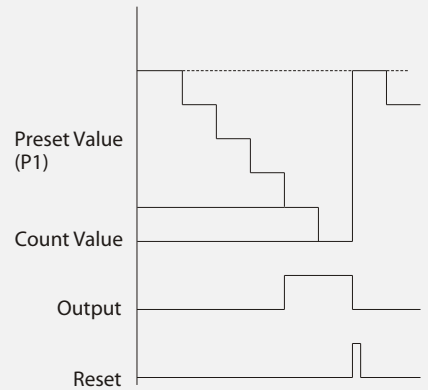
\* Output time on auto reset mode would be 0.1 sec. even if set to latch



## 1 level preset, auto-reset mode

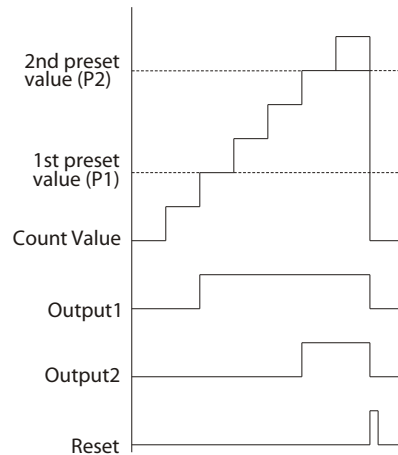
(Sub input)  
<Output time : Latch>

\* Subtracts from 1st preset (P1) value and outputs when reaches to 0.



## 2 level preset, overrun mode

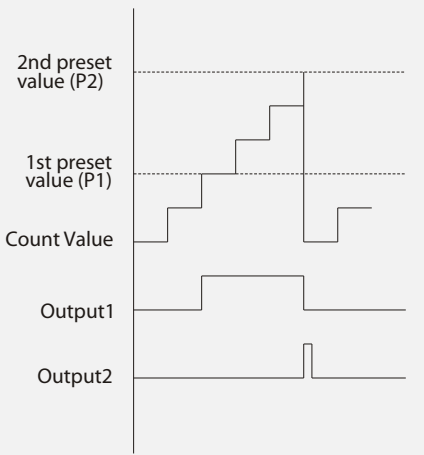
(Add / Quad / Individual add, sub input)  
< Output time : Latch>



## 2 level preset, auto-reset mode

(Add / Quad / Individual add, sub input)  
<Output time : Latch>

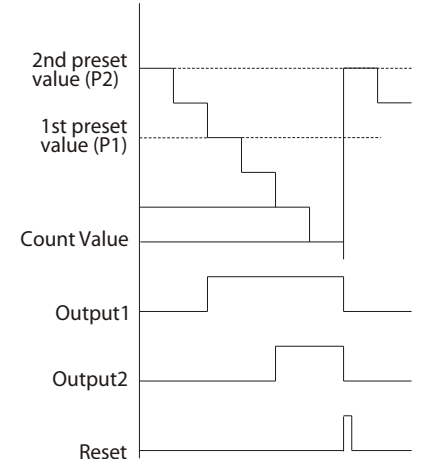
\* Output time of the final preset level on auto reset mode would be 0.1 sec. even if set to latch



## 2 level preset, overrun mode

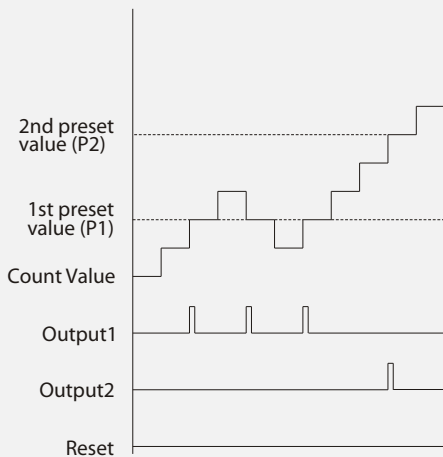
(Sub input)  
<Output time : Latch>

\* Subtracts from 2nd preset (P2) value and outputs when reaches to 0.



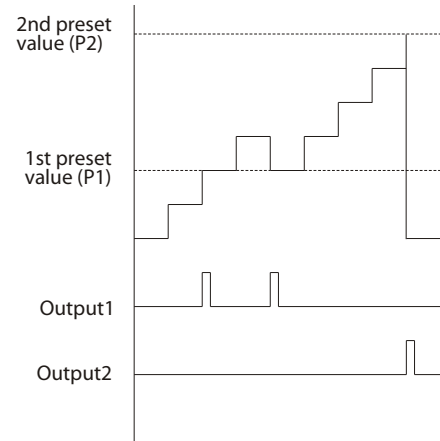
## 2 level preset, overrun mode

(Quad / Individual add, sub input)  
< Output time : One shot (0.1 sec)>



## 2 level preset, auto-reset mode

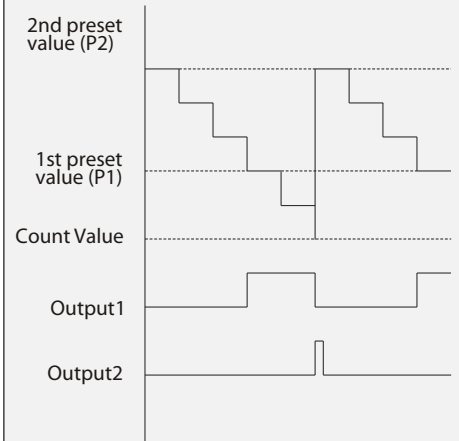
(Quad / Individual add, sub input)  
< Output time : One shot (0.1 sec)>




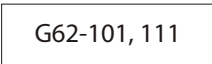
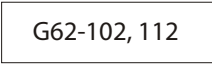
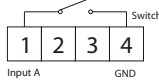
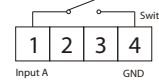
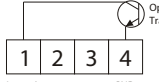
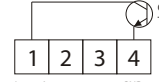
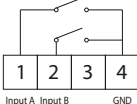
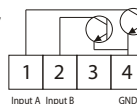
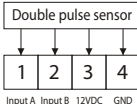
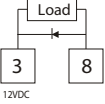
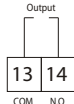
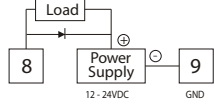
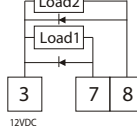
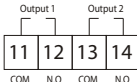
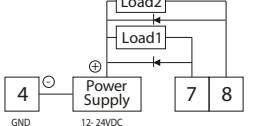
## 2 level preset, auto-reset mode

(Sub input)  
<Output time : Latch>

\* Subtracts from 2nd preset (P2) value and outputs when reaches to 0. Then, returns to P2 automatically.



# WIRING

	1 Level Preset		2 Level Preset	
	1 Input (Add / Sub)	2 Input (Quad/Individual add, sub)	1 Input (Add / Sub)	2 Input (Quad/Individual add, sub)
Terminal Locations	No. 1 Input 2 _____ 3 12 VDC 4 GND 5 Reset 6 Input inhibition 7 _____ 8 Open Collector output 9 GND 10 Key Protection 11 _____ 12 _____ 13 COM. } Relay output 14 N. O. } 15 0 VAC } Power Source 16 85 - 264 VAC } Source	No. 1 Input A 2 Input B 3 12 VDC 4 GND 5 Reset 6 Input inhibition 7 _____ 8 Open Collector output 9 GND 10 Key Protection 11 _____ 12 _____ 13 COM. } Relay output 14 N. O. } 15 0 VAC } Power Source 16 85 - 264 VAC } Source	No. 1 Input 2 _____ 3 12 VDC 4 GND 5 Reset 6 Input inhibition 7 Open Collector output (P1) 8 Open Collector output (P2) 9 GND 10 Key Protection 11 COM. } Relay 12 N. O. } Output (P1) 13 COM. } Relay 14 N. O. } Output (P2) 15 0 VAC } Power Source 16 85 - 264 VAC } Source	No. 1 Input A 2 Input B 3 12 VDC 4 GND 5 Reset 6 Input inhibition 7 Open Collector output (P1) 8 Open Collector output (P2) 9 GND 10 Key Protection 11 COM. } Relay 12 N. O. } Output (P1) 13 COM. } Relay 14 N. O. } Output (P2) 15 0 VAC } Power Source 16 85 - 264 VAC } Source
Power Source	Power Source  Supply power source between 85 and 264 VAC to terminal No. 15, 16.			
Input	Add / Sub input (1 input only)  G62-101, 111		Select either add or sub input by dip-switch No. 2. Subtract input to be dip-switch No. 2 ON, and add input to be dip-switch No. 2 OFF. * Turning dip-switch ON / OFF should be done during power off.	
	Quad. / Individual add, sub. input (2 input)  G62-102, 112		Select either quad. or individual add, or sub input by dip-switch No. 2. Individual add, sub. input to be dip-switch No. 2 ON, and quad. input to be dip-switch No. 2 OFF. * Turning dip-switch ON / OFF should be done during power off.	
	Contact, add input  Contact, sub input  Non - contact, add input  Non - contact, sub input 		Contact, Individual add, sub input  Non-contact, Individual add, sub input  Quad. input 	
Output	Open Collector output (Internal power supply is used.)  Relay output 	Open Collector output (External power supply is used) 	Open Collector output (Internal power supply is used.)  Relay output 	Open Collector output (External power supply is used) 
Inhibition and Protection	Input inhibition ..... Pulses cannot be counted while terminal No. 6 and 9 are shorted. Key protection ..... Prescale, preset values and decimal point position cannot be edited, and front key resetting is inhibited while terminal No. 9 and 10 are shorted.			
Reset	Remote reset ..... Preset count value and output are reset when Terminal No. 4 and 5 are shorted via relay or microswitch. Coming pulses are ignored while terminals are shorted.			



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