

CA-61K,CA-62K

digital counter

Easy-to-use multifunction Counters
with dual Bright LED Display

- ◆ 72mm square dimension
includes single preset or double
preset(CA-62K)
- ◆ Contact outputs available
- ◆ Prescale function displays in
units of actual physical
parameters, and adjustment
decimal point
- ◆ Up,Up/Down count mode switchable
- ◆ On-line change of set value possible



Ordering Information

Model No.	CA-61K-N	CA-61K-P	CA-62K-N	CA-62K-P
number of presets	one		two	
input type	non voltage(NPN)	voltage(PNP)	non voltage(NPN)	voltage(PNP)
Power supply	AC 100V to 240V 50/60Hz			

Specification

General feature

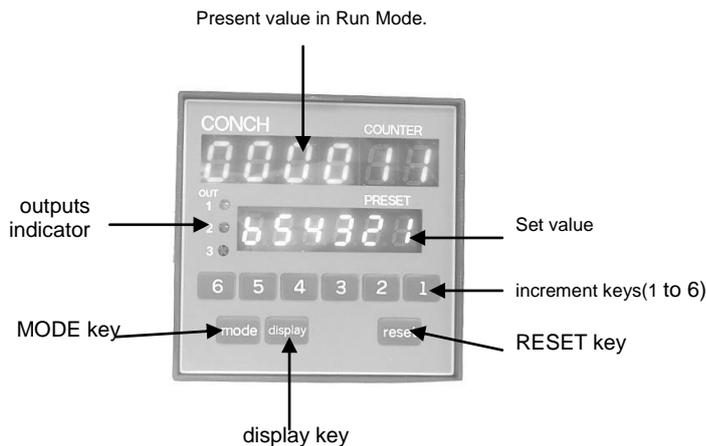
Model	CA-61K-N	CA-61K-P	CA-62K-N	CA-62K-P
Mounting	flush mounting			
Degree of Pollution	CAT II			
Degree of Installation	CAT II			
Digits	-99999 to 999999			
Display	0.4inch (10mm)H red LED Present Value ◦ 0.3inch(7.6mm)H green LED Set Value			
Scaling	From 0.0001 to 99.9999			
Preset range	0 to 999999		Independent preset value	
Count mode	Up with Gate input ◦ Up/Down with different phase inputs			
input signals	A_IN,B_IN,RESET		Non-voltage:Via opening and closing contact	
			Volatge:Via signals HI and LO voltage	
Outputs	1 set of RELAY		2 sets of RELAY	
DC output for sensor	+12V			
Data backup	By EEPROM memory chip when power interruption,Keeps 10 years at least ◦			

Rating

Power supply	AC 100V to 240V 60/50Hz ±10%		
Power consumption	8VA MAX..		
Max.counting speed	25 Hz , 300Hz , 3kHz(selectable)		
Inputs	Non-voltage inputs	ON impedance ON residual voltage OFF impedance	2kΩ max. (approx. 2mA when 0Ω) 3V max. 900kΩ min.
	Voltage inputs	High level Low level Input resistant	6 to 25 VDC 2 to -12VDC Approx. 8.2kΩ
Controls output	Contact: 5A,240VAC ,resistive load (p.f=1).		
DC output for sensor	+12v , 100mA MAX.		
Ambient operating temperature	-10 to 55°C with no icing		
Storage temperature	-25 to 65°C with no icing		
Ambient operating humidity	35% to 85% RH		

Operation

Panel explanation

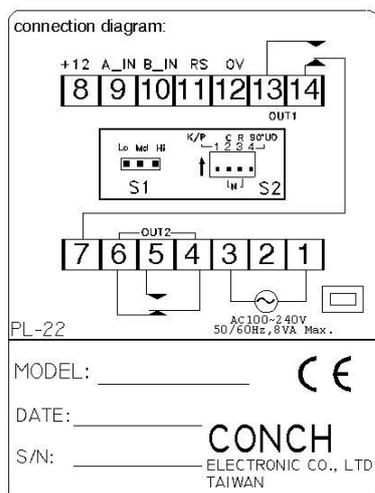


Key Operation

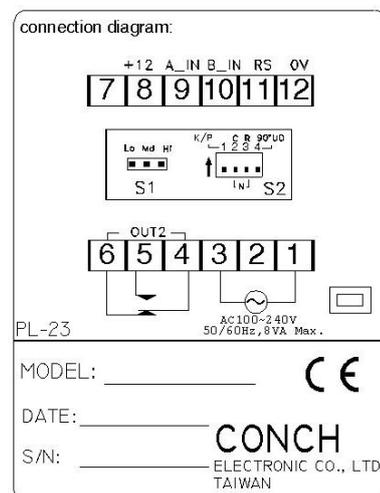
Key name	Operation
Mode key	Switches from run mode to set mode; changes items in set mode
Display key	Switches form set mode to run mode.
Increment key(1- 6)	Used to change the corresponding digit of the set value;also used to change data in set mode.
Reset key	Resets present value and outputs

Connection diagram

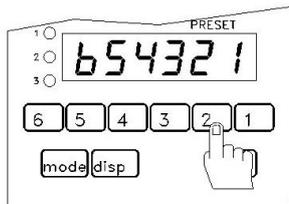
CA-62K-N
CA-62K-P



CA-61K-N
CA-61K-P



■ Setting SET2 in run mode

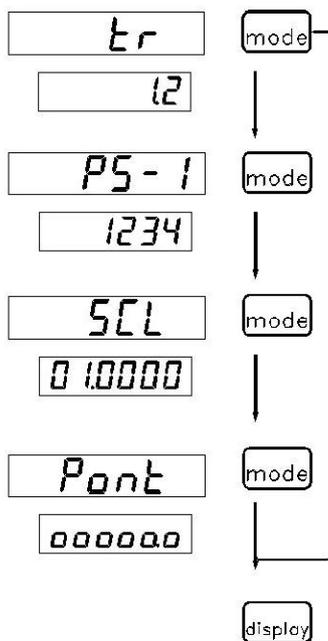


SET2:

Compared to the present value,when present value reaches to SET2,OUT2 turns ON. Determines the timing of the control output according to the output mode.

Press increment key 1 to 6 directly that corresponds to the digit of set value.

■ Setting the other items in set mode (presses "MODE" key to start set mode)



OUTPUT TIMER :

Determines the output time of control output(OUT2) for CA-61K and CA-62K as well. Press keys 1 and 2 to change the value.Applicable to output mode R and C only.

SET1: (available only for CA-62K)

Compared to the present value,when present value reached to SET1,OUT1 turns ON. Change the value of the digits with the corresponding keys,1 to 6.

SCALING FACTOR:

With this factor the counter can calculate and display a physical parameter(volumn, length, etc).For example, if one count input represented a movement of 0.1mm, the scaling factor would be 0.1.

Value is wide from 0.0001 to 99.9999. Change the value of the digits with the corresponding keys,1 to 6.

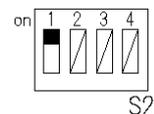
DECIMAL POINT:

Determines the decimal point position of the present values. Move the decimal point position with keys 1 to 6.

Return to run mode.

■ Key protection(K/P)

When S2-1 is posited at ON(see right illustration),"SCL", "Pont", "PS-1" are disabled,only "Tr", "SET2" are possible.



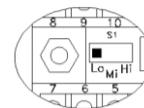
■ Count speed

Select the S1 filtering the count input to protect against erroneous counts due to interference.

Hi: approx.3kHz

Mi: approx.300Hz

Lo: approx. 20Hz

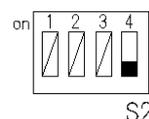


■ Count mode

Using the S2-4 switch,determines the count mode from Up with Gate input ,or Up/Down with difference phase inputs(quadrature).

Up count mode(S2-4=OFF),

A_IN receives the count input, and B_IN as a Gate function which interrupts the count function without resetting the counter:counting resumes once the signal is removed ◦



Up/Down count mode(S2-4=ON),

A_IN,B_IN inputs accepted the quadrature signals ◦



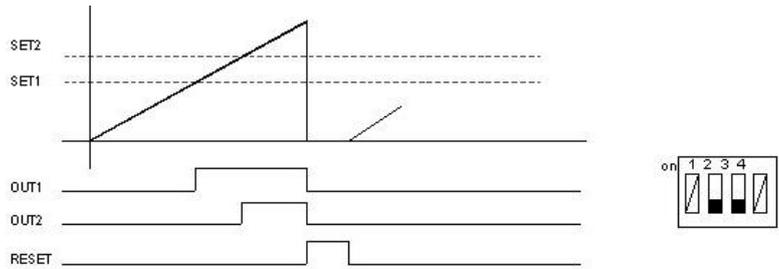
Reboot the counter after the count mode has changed.

Output mode

Using the S2-2,S2-3 switches,determines the output mode of N,R,C.

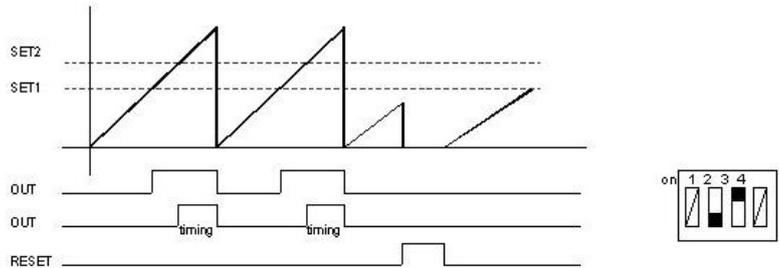
Mode N:

Present value runs continuously, Outputs are maintained until RESET.



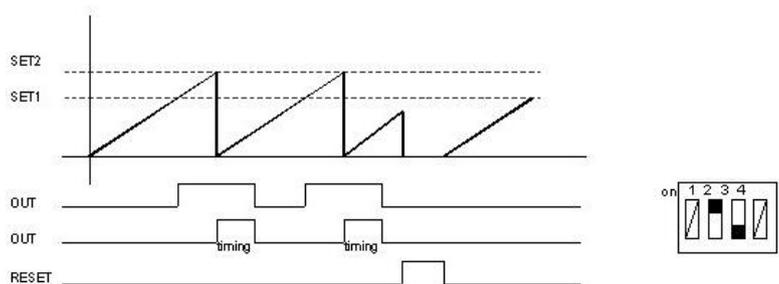
Mode R:

Present value runs continuously, Outputs are maintained until time out.



Mode C:

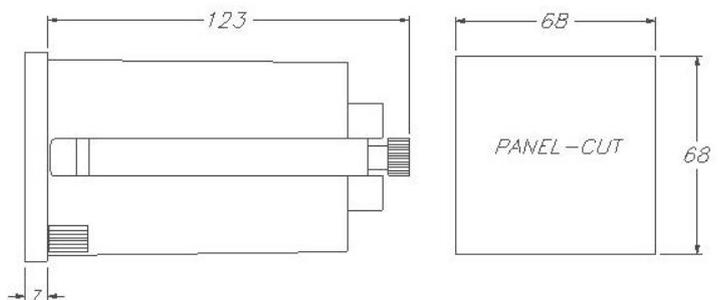
Present value reset to zero,as it reaches to SET2,and Outputs are maintained until time out.



Installation

Dimension (unit in mm)

Panel thickness is from 1mm to 5mm.

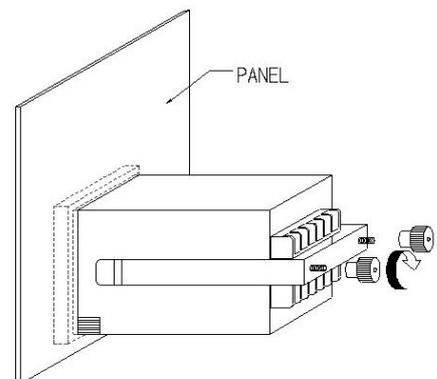


Mounting

The illustration at right show how to mount the counter in a panel with the mounting bracket.

Insert the counter through the panel, then insert the bracket in the bottom of the counter. Tighten the screws until the counter is fixed.

※Around the mounted counter must keep at least 20mm space to ventilate.



Caution

1. Make sure that the supply voltage is applied to the counter all at once.
2. The included fuse(the fuse write:"F1",2A/250V)must be changed by technician.
3. The counter, input signal lines, and the input sensors must be separated as far as possible from any sources of electrical noise, such as high-voltage power lines.
4. The circuit breaker or switch of the final equipment or the like shall disconnect both lines of the counter from its power source.
5. The counter is a built-in component during installation the relevant requirement shall be maintained.
6. For the permanent connection to the power supply, 18AWG wire with U-terminal shall be used.