Digital Counter

CA-41K

Economic Counter with Dual Bright LED Display

- 72x72mm dimension, providing single preset.
- Contact outputs available
- Up, Up/Down count mode switchable
- On-line change of set value possible

Ordering Information



| Model No. | CA-41K-N | CA-41K-P |
|--------------|-------------------------|---------------|
| Input Type | Non-voltage (NPN) | Voltage (PNP) |
| Power Supply | AC 100V ~ 240V; 50/60Hz | |

Specification

General Feature

| Model | CA-41K-N | CA-41K-P | |
|--------------------------------------|---|--|--|
| Mounting | Flush mounting | | |
| Degree of Pollution | CAT II | | |
| Degree of Installation | CAT II | | |
| Digits & Display | -999 ~ 9999; 0.56"H (14mm) red LED Present Value, 0.3"H (7.6mm) green LED Set Value | | |
| Preset Range | 0 ~ 9999 | | |
| Count Mode | Up with Gate input, Up/Down with quadrature inputs | | |
| Input Signals (A_In, B_In, Reset) | Non-voltage: Via opening and closing contact | Voltage: Via signals HI and LO voltage | |
| Data Backup | By EEPROM when power failure, keeping 10 years at least \circ | | |

Rating

| Power Supply | AC 100V ~ 240V; 60/50Hz ±10% | | |
|-------------------------------|---|--|---|
| Power Consumption | 8VA Max. | | |
| Max. Counting Speed | 25Hz, 300Hz, 3kHz (Selectable) | | |
| lassida | Non-voltage Inputs | ON impedance ON residual voltage OFF impedance | 2kΩ max. (approx. 2mA at 0Ω) 3V max. 900kΩ min. |
| Inputs | 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 | e -10 ~ 55 $^\circ\!\mathrm{C}$ with no icing | | |
| Storage Temperature | -25 ~ 65 $^{\circ}$ C with no icing | | |
| Ambient Operating Humidity | 35% ~ 85% RH | | |

Operation





Key Operation

| Key name | Operation |
|-----------------------|---|
| Timer key | Determines the output time of control output. Range: 0.1 ~ 9.9 sec. |
| Number Keys (1- 4) | Change the corresponding digit of the set value. |
| Reset key | Resets present value and outputs |

Connection Diagram



Setting SET VALUE



Set Value is set to compare with Present Value. When Present Value \geq Set Value, OUT2 output ON. Output Time and Output Mode are settable.

Press increment key 1 to 4 directly that corresponds to the place of Set Value.

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

Shift the position of Switch S2-4 to determine the count mode: Up with Gate input, or Up/Down with quadrature 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 \circ

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

A_IN,B_IN inputs accepted the quadrature signals $\ensuremath{\,\circ\,}$











Output mode

The position of Switch S2-2 and S2-3 determine the output mode of N, R, C.

Mode N:

Mode R:

Present value runs continuously. Outputs are maintained until RESET.

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



Mode C:

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



Installation

Dimension (unit: mm)

Panel thickness is from 1mm to 5mm.



Mounting

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

Insert the counter through the panel, and then insert the bracket in the bottom of the counter. Tighten the screws unit the counter is fixed. **Xaround the mounted counter please do keep at least 20mm** space for ventilating.

Caution

- 1. Make sure that the supply voltage is applied to the counter all at once.
- 2. The included fuse (the fuse writes:"F1", 2A/250V) must be changed by technicians.
- 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-tension cable.
- 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.

