

# K Series

## Miniature Electronic Counter

### Features

- Add and Subtract Counter
- Accepts Simultaneous Inputs
- Built-In Battery Backup
- 8 Digit LED Display
- Optically Isolated Inputs
- Accepts AC or DC pulses & Switch Closure Inputs
- 1" x 2" (25 x 50 mm) Standard Case Size



### Applications:

Ideal when small size and fast count speeds are needed. Uses include piece part totals, flow totalization and other OEM machinery needing a simple LED totalizer.

### Description:

The K series is a 4 or 8 digit totalizer electronic counter. Its unique count input accurately registers simultaneous overlapping pulses, is optically isolated, and accepts counts at speeds up to 100 kHz. Further, the K series has a "built-in" battery to protect against power failures, can be powered with DC voltage and pulsed with AC or DC voltages, and is built with CMOS L.S.I. circuitry. In addition, all K series 4 digit counters have open collector logic level zero output as an optional feature. The K series 5-30 VDC power, small size and standard built-in battery makes it the perfect counter for those demanding applications where good looks, long life, and a secure count are important.

### Specifications:

**Count Speed:** 0-100 kHz

**Reset:** Follows count input selected above, overrides count and triggers on leading edge.

**Number of Digits:** 8; at 99999999 all digits "roll" to zero for continued counting.

Digit Size .170" high standard.

**Power Supply:** 5-30 VDC regulated or unregulated.

**Current Consumption:** 80 milliamps with all 8 digits lit to number 8.

**Power Interruptions:** Built-in battery. Power may be interrupted for up to 1 week without loss of count. Counter may be stored for six months before 24 hours operation will be needed for battery recharge. While on standby, display blanks to conserve energy.

**Count Input:** Five inputs may be selected.

**SP:** Simultaneous Pulses - Positive going signals from 5 V to 30 VDC. Simultaneous overlapping add and subtract pulses are accurately registered to 15,000 counts per minute, 2 millisecond minimum pulse widths. 10 kOhm impedance.

**H:** High Impedance - 0-100 kHz non-simultaneous input operation standard. Separate add and subtract inputs or common data input together with up/down control line. Input impedance is 10 K ohm. Use with 715-1 shaft encoder.

**V:** AC Pulses - AC pulses 120 VAC. 50 counts per second. 75 K ohms impedance.

**O:** Optically Isolated - 1500 Hz maximum input

**S:** Up/Down Control - Use this with KEP encoder model 715-2. 5 VDC positive going pulses are fed into a single terminal. When held high, the up/down control line adds the incoming pulses to the total. When allowed to go low, the incoming pulses are subtracted from the total. 10 K ohm impedance.

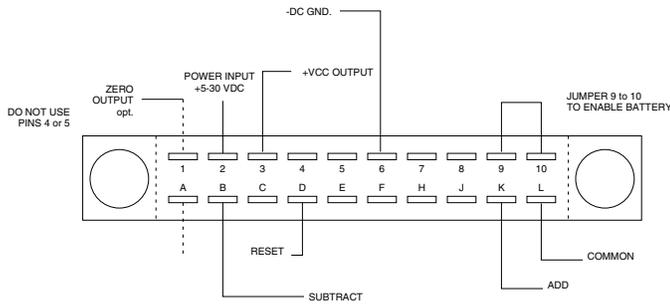
**Mounting:** Panel mounted or "spring clip".

**Termination:** Printed circuit board edge connector supplied-standard

**Zero Output:** Logic level zero output provides 300 milliamps of switching power whenever the counter passes through or idles at zero This option is available in 4 digit models only.

**Temperature:** +32°F (0°C) to +130°F (+54°C)

**HOOKUP**



**INPUT WIRING**

**SWITCH CLOSURE (Input H)**

- ADD K TO 2
- SUB B TO 2
- RES D TO 2

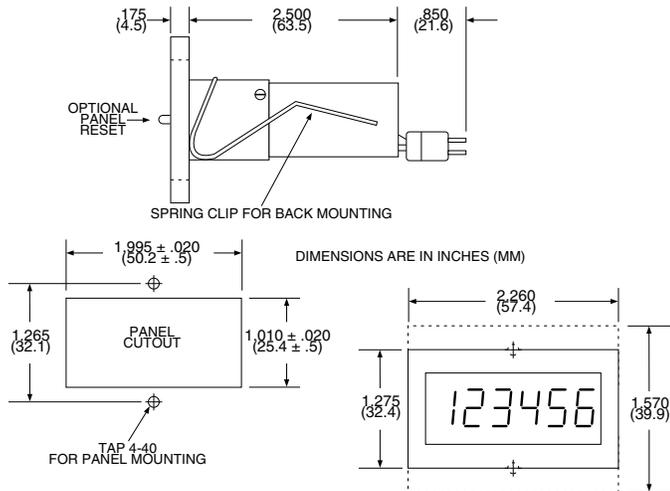
**DC PULSES (Input H)**

- ADD K PLUS 6 GROUND
- SUB B PLUS 6 GROUND
- RES D PLUS 6 GROUND

**OPTICALLY ISOLATED AND AC PULSES (Inputs SP & V)**

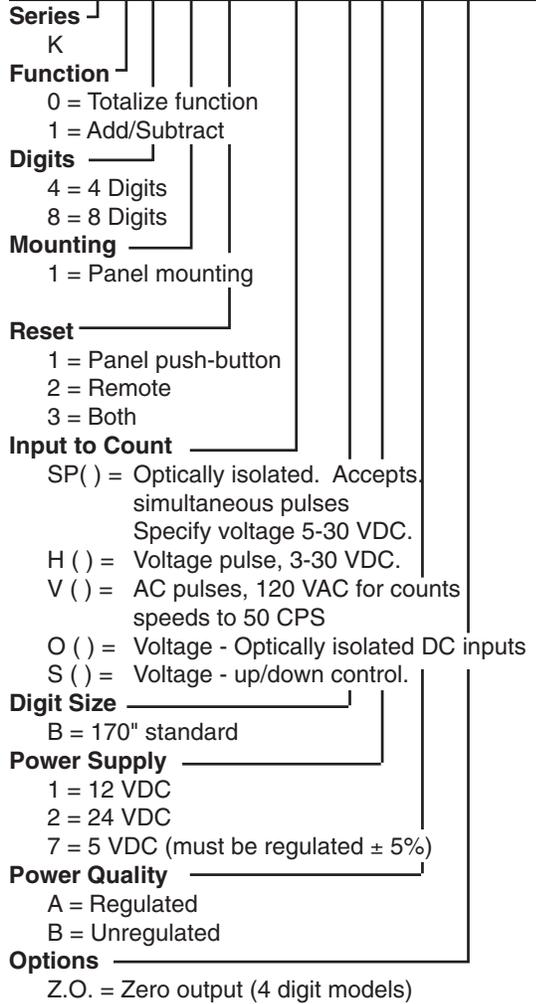
- ADD K
- SUB B
- RES D
- COM L

**MOUNTING**



**How To Order;**

**EX: K 0 8 2 3 SP(12) B 2 A Z.O. 50Hz**



**Count Speed (specify actual speed)**

- 0-10KHz
- Over 10KHz
- Over 100KHz

**Accessories**

115-5 Power Supply