

# KAL-DIN

## Features

- UL, CSA Listed, CE Certified
- 8 Digits Standard
- Meets NEMA 4X and IP65 Ratings
- Long Life Lithium Battery
- 10 kHz Count Speed
- Plug-on Adapter with Terminal Block and AC Pulsing
- Slow Speed Input for Contact Closures
- High Speed Input for Sinking Inputs from a Max. of 18VDC Without Module

## Description:

These are small, lithium battery powered, totalizing counters that are panel mounted. The counters are designed as replacements for standard electro-mechanical counters. They use the latest custom CMOS technology and incorporate an 8 digit, 0.276" high, LCD display.

The KAL-DIN operates from a long life lithium battery (life 10 years) and can be operated from contact closure or high speed electronic devices. No separate alkaline batteries are required. The front reset button can be disabled if desired.

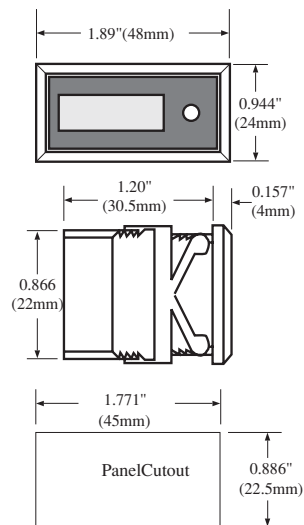
Connections are via .025" (6.35mm) square posts. Push on connector with 9" (229mm) leads are supplied with unit.

When installed, with the gasket provided, the unit meets NEMA 4X/IP65 ratings from the front.

Use the KAL-DAC/DC adaptor to pulse from 5 to 240 volts AC or DC.

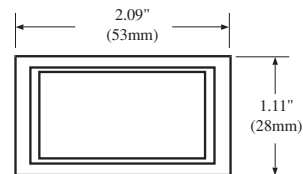
Use the KAL-DTB adaptor for screw terminals.

## Mounting:

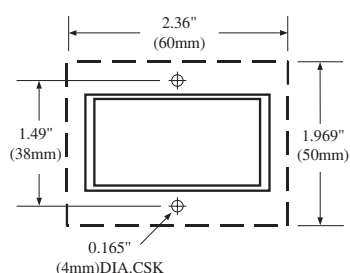


## Adaptors (included)

### KAL-DP1X2



### KAL-DP1



## Miniature, Low Cost, LCD, Electronic Counter



## Specifications:

**Power:** Internal lithium battery

**Display:** 8 digit black LCD, Digit size 0.276" (7mm) high

**Reset:** Panel or remote

**Temperature Range:** 14 to 140°F (-10 to 60°C)

**Signal Input:**

**Common (Pin 1)**

**Manual Reset Enable (Pin 2)**

Link to Common to enable front panel reset key

**External Reset (Pin 3)**

Contact closure/open collector neg. edge triggered, 0.7V threshold, minimum pulse length 15mS.

**Slow Speed Count Input (Pin 4)**

Contact closure/open collector, minimum pulse length 15mS, 30Hz max. negative edge triggered,

Low: < 0.7V,

High: 3 to 18 V or open.

**High Speed Count Input (Pin 5)**

Open collector input, 10KHz max., min. pulse length 50µS. negative edge triggered,

Low: < 0.7V,

High: 3 to 18 V or open.

TTL/CMOS compatible.

**Approvals:** UL File: E135458, CSA File: LR9602, CE Approved

**Material:** ABS Plastic.

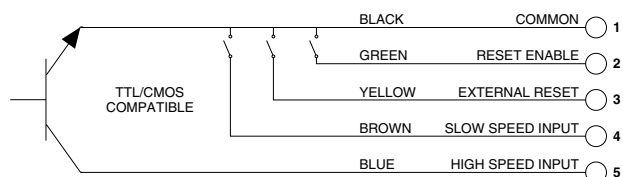
**Battery Life:** 10 years (calculated)

**Connection:** 5 pin, plug in connector with 9" (229mm) leads supplied with counter.

**Sealing:** Front Panel (without adaptors) sealed to NEMA 4X/IP65 when used with clip mount and gasket provided.

**Mounting Adaptors:** KAL-DP1x2 for 1" x 2" cutout and KAL-DP1 for screw mount are supplied.

## WIRING DIAGRAM



**TERMINAL BLOCK MODULE**

**Description -- KAL-D TB**

(For screw terminal connection with standard pulse characteristics)

Pin numbers shown on terminal block correspond to wire lead numbers.

Two Pins #1 are internally connected.

**DO NOT CONNECT KAL-D TB TO AC VOLTAGE**

**5-240 VOLT INPUT MODULES**

**Description -- KAL-D AC/DC (Counter)**

KAL-DTIME AC/DC (Timer)

The KALD AC/DC Module enables the KALD to accept 5-240 VAC/DC input signals. (The KAL-DTime AC/DC is used for the KAL-DTIME series). The module snaps into the back of the counter. The circuitry allows various voltage pulses to be used for counting and provides opto-isolation of 2500V.

**KAL-D AC/DC (Counter)**

**SPECIFICATIONS:**

**Signal Inputs:**

18 Hz max. (15 msec. pulse width min.)

5 to 48 VAC/DC

Low: < 1.5 VAC/DC or open

High: 5 to 55 VAC/DC

48 to 240 VAC/DC

Low: <15 VAC/DC or open

High: 48 to 264 VAC/DC

**Input Impedance:**

5 to 48 VAC/DC - 10K ohms

48 to 240 VAC/DC - 58.5K ohms

**Reset:**

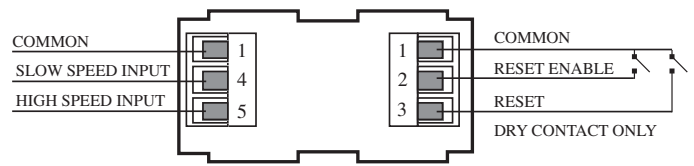
Dry contact closure only.

15msec. min. pulse.

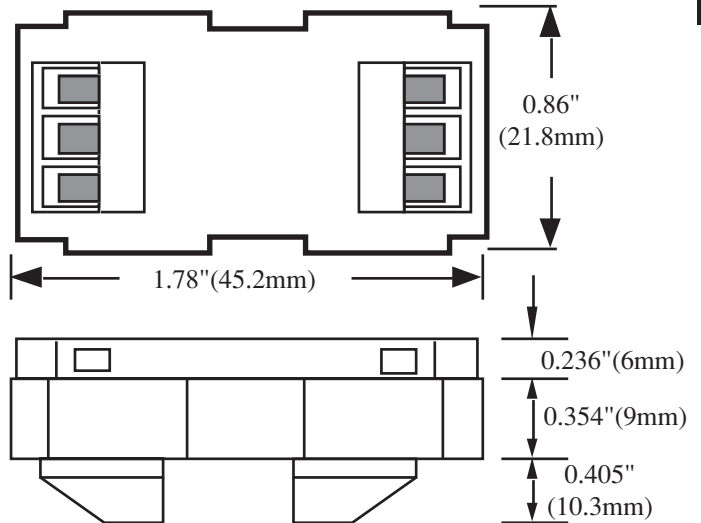
**Temperature Range:**

Same as KAL-D series

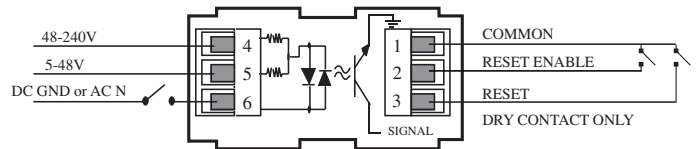
**Terminal Block (TB) Adaptor Connections**



**Dimensions for AC/DC Adaptor and Terminal Block**



**AC/DC Adaptor Connections**



**NOTE:**

Jumper terminal 5 to terminal 6 to raise the low threshold to 25V for triac inputs or when low voltage does not reach 0V. Connect input to terminals 4 & 6.

It may be necessary to place a 10 kΩ 7W resistor across terminals 4 & 6 to bring voltage below 25V.

**How To Order:**

- KAL-D ..... 8 digit counter with 10 yr battery
- KAL-DAC/DC ..... 5-240V AC/DC input module
- KAL -DTB ..... Terminal block adaptor

**Accessories**

- N7 - Explosion proof housing (see accessories section)
- E200 - Outdoor Enclosure (see accessories section)