

KAL-DTIME

Miniature, Low Cost, LCD, 8 Digit Electronic Timer

Features

- 8 Digits Standard
- Meets NEMA 4X and IP65 Ratings
- Long Life (10 Year) Lithium Battery
- Screw Terminal Block
- Electronic or Contact Closure Input
- Electronic Input for Sinking Inputs from a Max. of 18VDC Without Module
- High Voltage (10 to 240 V AC; 2 to 110V DC) Inputs Optional
- UL Listed



Description:

The KAL-DTIME timers are small, lithium battery powered, timers that are panel mounted. The timers are designed as replacements for standard electro-mechanical timers. They use the latest custom CMOS technology and incorporate an 8 digit, 0.354" (9mm) high, LCD display.

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

Specifications:

Battery: Non-replaceable Lithium battery, expected life of 10 years at 20°C

Display: 8 digit black LCD, Digit size 0.354" (9mm) high, leading zero blanking,

Backlight: backlight requires external 5V supply ($\pm 0.5V$ @ 20mA). 12V, 24V and 30V can be used with the use of an external resistor, see backlight wiring diagram for details and resistor values.

Reset: Panel or remote (can be disabled if desired)

Time Range:

SECONDS:	99999999
MINUTES and SECONDS:	99999-59
HOURS and 1/100ths	99999-99
HOURS and MINUTES:	99999-59

Temperature Range:

Operating: 14 to 140°F (-10 to 60°C)
Storage: -4 to 140°F (-20 to 60°C)

Battery Life: 10 years at 20°C (calculated)

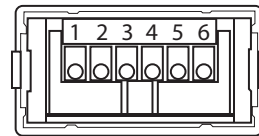
Relative Humidity: 80% max. up to 31°C, decreasing to 50% max. at 40°C

Connection: Finger-proof screw terminal for wires up to 0.06"² (1.5mm²)

Sealing: NEMA 4X/IP65; **Remove film from self adhesive gasket before use!** Overvoltage Category II, Pollution Fegree 2 (IEC 64)

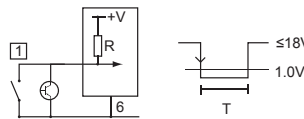
Certifications: UL Listed

KAL-DTIME Wiring:



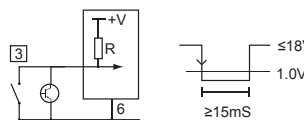
- 1 - Timing Input
- 2 - Not Used
- 3 - External Reset Input
- 4 - Direction Input
- 5 - External Power for Backlight
- 6 - 0V, Common

Timing Input:



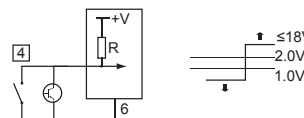
- Sink input NPN
- R = Internal resistor 3.3MΩ
- Max 18V, theshold 1V
- Negative edge trigger
- Seconds, Minutes-Seconds
T=Minimum 1 second
- Hours 1/110, Hours-Minutes
T=Minimum 6 seconds

External Reset Input:



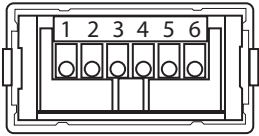
- Sink input NPN or contact closure
- R = Internal resistor 3.3MΩ
- Max 18V, theshold 1V
- Negative edge trigger
- Min. 15mS

Direction Input:



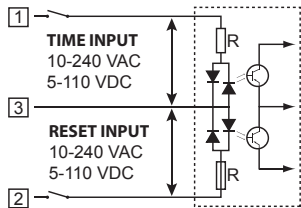
- Sink input NPN or contact closure
- R = Internal resistor 3.3MΩ
- UP: Not connected or >2V (logic 1), max 18V
- DOWN: Connected to common or <1V (logic 0)
- Direction signal must change >5μs before Count signal.

KAL-DTIMEAC/DC Wiring



- 1 - High Voltage Timing Input
- 2 - High Voltage External Reset Input
- 3 - Common for pins 1 & 2
- 4 - Direction Input
- 5 - External Power for Backlight
- 6 - 0V, Common for pins 4 & 5

High Voltage Input:

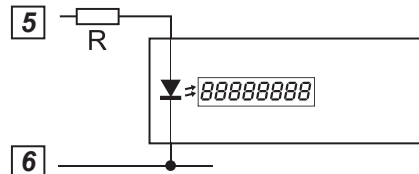


- High Voltage Timing Input**
- Opto-isolated
 - R = Internal resistor 50kΩ
 - 10 - 240V AC ±10%
 - 5 - 110V DC ±10%
 - Seconds, Minutes-Seconds
T=Minimum 1 second
 - Hours 1/110, Hours-Minutes
T=Minimum 6 seconds



- High Voltage Reset Input**
- Opto-isolated
 - R = Internal resistor 50kΩ
 - 10 - 240V AC ±10%
 - 5 - 110V DC ±10%
 - Min 15mS

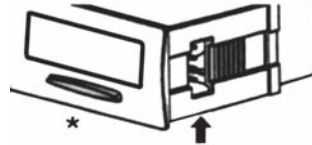
Backlight Wiring



- 5V: R = 0Ω
- 12V: R = 360Ω
- 24V: R = 1KΩ
- 30V: R = 1.2KΩ

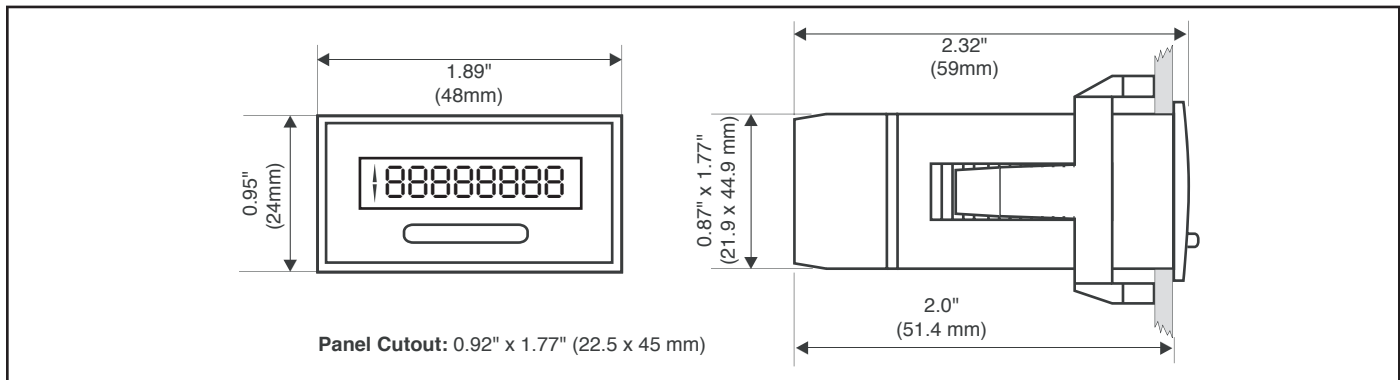
External supply for backlight is 5 VDC @ 20mA
R = external resistor; see table next to diagram above.

Jumpers



- ● Front Panel Reset Enabled
- ● Front Panel Reset Disabled
- ● Seconds
99999999
- ● Minutes - Seconds
99999-59
- ● Hours - 1/100
99999-99
- ● Hours - Minutes
99999-59

Dimensions



How To Order:

- KAL-DTIME..... 8 digit timer with 10 yr battery
- KAL-DTIMEAC/DC 8 digit timer with 10 yr battery with High Voltage Input

Accessories

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