## CH \& TH Series



## FEATURES:

- Low cost
- 7 Digit LCD display
- Battery powered Totalizing Counter or Timer
- Screw terminal adaptor
- Accepts a wide range of inputs
- Small panel foot print


## DESCRIPTION:

The CH \& TH Series are panel mount counters and timers that are powered by a small, lithium battery.

The CH Series of totalizing counters accepts three types of inputs. 1) Non-voltage contact closure or NPN open collector 2) PNP 6-24VDC 3) 90-240V AC/DC. The front reset button can be disabled if desired.

The TH Series are elapsed timers and can time in minutes or hours. They accept a Non-voltage contact closure / NPN open collector, PNP 6-24VDC or $90-240 \mathrm{~V}$ AC/DC. a nonvoltage contact closure / NPN open collector or a $90-240 \mathrm{~V}$ AC/DC input. The unit times as long as it is receiving an input and stops when the input is stopped or removed. The front reset button can be disabled if desired.

## SPECIFICATIONS:

| Model | CH-7N | CH-7P | CH-7A | TH-7NM | TH-7NH | TH-7PM* | TH-7PH | TH-7AM | TH-7AH |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Function | Counter (1 count per pulse) |  |  | Timer Min. | Timer Hour | Timer Min. | Timer Hour | Timer Min. | Timer Hour |
| Display | 7 digit, LCD, 8 mm ( 0.315 ") high characters Range: 9999999 |  |  | 7 digit, LCD, 8mm (0. 315") high characters Range 999999.9 |  |  |  |  |  |
| Power Supply | Internal lithium battery |  |  |  |  |  |  |  |  |
| Input | Non-voltage contact closure / NPN open collector | PNP, Hi (6-24Vdc) Low (4-0 Vdc) | $\begin{gathered} \hline \text { Voltage, AC/DC } \\ 90-240 \mathrm{~V} \end{gathered}$ | Non-voltage contact closure / NPN open collector |  | $\begin{gathered} \text { PNP, Hi (6-24Vdc) } \\ \text { Low (4-0 Vdc) } \end{gathered}$ |  | AC/DC 90-240V |  |
| Input speed | 10 Hz Max |  |  |  |  |  |  |  |  |
| Reset | 1) Non-voltage contact closure/ NPN open collector 2) Front push button | 1) PNP, Hi (6-24Vdc) <br> Low (4-0 Vdc) <br> 2) Front push button | 1) Non-voltage contact closure / NPN open collector <br> 2) Front push button |  |  | 1) PNP, Hi <br> Low (4-0 V <br> 2) Front pu | $(6-24 \mathrm{Vdc})$ <br> c) <br> h button | 1) Non-voltage contact closure / NPN open collector <br> 2) Front push button |  |
| Housing | Plastic |  |  |  |  |  |  |  |  |
| Mounting | Panel mount |  |  |  |  |  |  |  |  |
| Connection | Screw terminals |  |  |  |  |  |  |  |  |
| Temperature | Operating: -32 to $122^{\circ} \mathrm{F}\left(-0\right.$ to $\left.50^{\circ} \mathrm{C}\right)$ Storage: -4 to $140^{\circ} \mathrm{F}\left(-20\right.$ to $\left.60^{\circ} \mathrm{C}\right)$ |  |  |  |  |  |  |  |  |
| Humidity | 35\% to 85\% RH |  |  |  |  |  |  |  |  |
| Approval | CE |  |  |  |  |  |  |  |  |

* Upon request

DIMENSIONS: mm (1mm = .03937")


The included mounting adapter allows the counter to be fitted into existing 1" x 2" cutouts.

## WIRING:

Non-voltage contact closure /
PNP, Hi (6-24Vdc)
NPN open collector


Input: Voltage, AC/DC 90-240V input
Reset: Non-voltage contact closure /
NPN open collector


To disable the reset button, open the K/P jumper at the rear of the counter.

## Counter

## Sensor wiring examples for the $\mathbf{C H}$ series counters

$\mathrm{CH}-7 \mathrm{~N}$ with a magnetic sensor - no power required. Model $\mathrm{CH}-7 \mathrm{~N}$ increments one count every time the magnet comes into the operating distance of the sensors.


CH-7N with Model T2514 Inductive Sensor. The CH-7N increments one count every time a target actuates the sensors. Please note: the $\mathrm{CH}-7 \mathrm{~N}$ will only work with NPN sensors that are open collector, sensors with an internal pull-up resistor can damage the counter. If you are not sure use a PNP sensor with model CH-7P.


CH-7P with a PNP output proximity sensor. The $\mathrm{CH}-7 \mathrm{P}$ increments one count every time a target actuates the sensors.


Maximum count speed is 10 counts per second for both counters.

