

LARGE DIGITAL LED TIMERS & TOTALISERS

INPUT SIGNALS – CONTACT CLOSURE, NPN, PNP, 24V PLC

LED NUMERICAL DISPLAY OF

HRS : MINS : SECS, HRS : MINS, MINS : SECS, MINS, SECS, 1/10 SEC



INDOOR OR OUTDOOR USE

LARGE DIGITAL LED NUMERICAL TIMERS & TOTALISERS

GENERAL OVERVIEW

These Large Digital LED Timers and Totalisers are ideal for all Industrial and Commercial applications (such as Sports Halls and Sporting events outdoors) with the following functions available

Time UP
Time Down
Repeat Cycle
TAKT Timing
Stop Watch

INPUT

- Contact Closure
- NPN
- PNP
- 24V PLC

OUTPUT (OPTIONS)

- Relay Output at Zero or at UP Time out
- Output at various points (settable) during Time UP or DOWN

TIME BASE RANGES

- Secs (1/10 sec option)
- Mins
- Mins : Secs
- Hrs : Mins
- Hrs : Mins : Secs
- DAYS : Hrs : Mins ; Secs

ALL THE ABOVE LEGENDS / SYMBOLS ARE SUPPLIED ON REQUEST – AT NO CHARGE

FUNCTIONS

- To a SET POINT from Zero or FREE RUNNING to MAXIMUM SCALE
- From a SET POINT to Zero
- Stop Watch (Start / Stop / Reset)

LED DISPLAY DIGITS

- 2, 3, 4, 5 or 6

LARGE DISPLAY CONTROL INPUT OPTIONS

- Remote wiring for START / STOP / RESET
- Remote Plug-in Box for setting Time value, Start / Stop / Reset
- IR Remote (see later in this overview)

LARGE LED TIMERS – APPLICATIONS

The use of these Timers is very wide, some applications are listed below –

- Measuring assembly line down time
- Controlling a process or event by Time alone
- Calculating process efficiency
- Measuring Time taken for line changeovers
- Measuring TAKT Time
- Measuring a total event or process Time
- Improving employee motivation
- Sports Time events.....etc

ANYTHING THAT CAN BE MEASURED IN RELATION TO TIME

LARGE DISPLAY LINES

The Large LED Timers can be supplied in SINGLE LINE or MULTILINE format and the Multiline displays can be a mix of Time Bases as shown in **TIME BASE RANGES above**

EXAMPLES OF SINGLE AND MULTILINE TIMERS WITH DIFFERENT TIME RANGES



Example of Outdoor LED Stop Watch



LARGE DIGIT TIMER – DESCRIPTIONS

UP OR DOWN TIMERS (AND TAKT TIME)

UP TIMERS can also be called TIME TOTALISERS, whereby an INPUT START SIGNAL initiates the Timing UP from Zero to a PRESET VALUE or continues to TIME UP until the maximum scale range is reached, In both cases an OUTPUT SIGNAL can be provided.



DOWN TIMERS/ TAKT TIME can also be called BATCH TIMERS, whereby a PRESET VALUE is set for a period of Time that an event has to take place. When that Time is reached, **normally at Zero** an OUTPUT SIGNAL can be provided.

This is typical of TAKT TIMING, where an operation must be completed within a set time.

Our Timers can, at ZERO, in such circumstances show NEGATIVE TIME and even the LEDs can change colour to show the SET TIME has been exceeded.

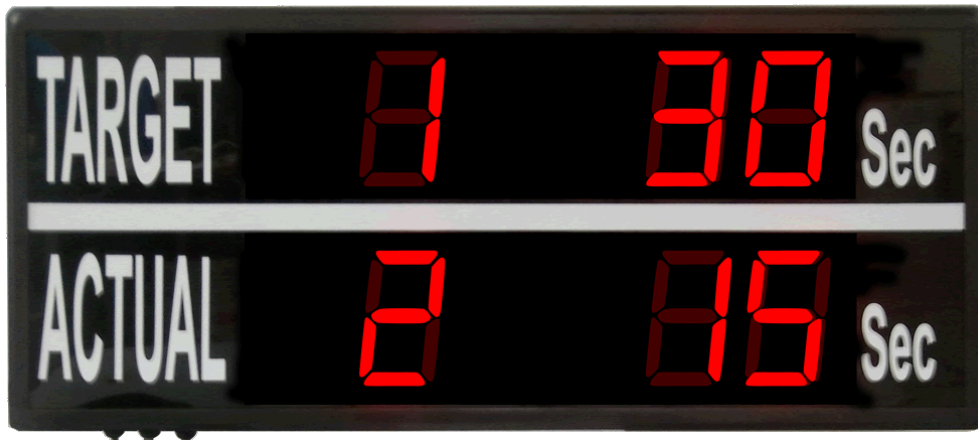
STOP WATCH

This functions as its name suggests as a STOP WATCH, for INDUSTRIAL or SPORTS events in particular, where the Time needs to be STARTED and STOPPED and RECORDED and either RESET or continues to TIME.

These are usually UP TIMERS.

These functions can be manually controlled or through SERIAL communication





TOTALISERS are dedicated to the task of displaying TIME ELAPSED and are usually UP TIMERS.

They (like all the previously described Timers) are available in all the Time Bases listed earlier and are usually used to display Time only with no OUTPUT function.

Many of these type of Timers are used to display POWER USEAGE like ‘ kWh ‘ or similar.

They accumulate rather than simply display usage.

DAYS TIMERS are LONG RANGE Timers, usually UP TIMING from Zero and invariable used with **HRS : MINS and sometimes SECS.**

They can also be used a **DOWN TIMERS** where a set number of DAYS is entered remotely and when the Timer receives a START SIGNAL INPUT, will start Timing Down and every 24 hours the DAYS will decrease by one.

In both cases these Timers are used to show the Time elapsed before an EVENT takes place or time the Time left before an EVENT takes place.



LARGE DIGIT TIMERS HEIGHT OPTIONS

All these Timers are available in the following LED DIGIT sizes – 2.3" (58mm), 4" (102mm), 6" (150mm), 8" (200mm), 12" (305mm), 16" (410mm), 18" (457mm) (**larger digits are available depending on quantity**)

VIEWING DISTANCES FOR LARGE DIGIT TIMERS AND TOTALISERS

The maximum viewing distances for the DIGIT SIZES given below are based on the LED manufacturers specifications and give **CLEAR UNAMBIGUOUS READING**. They are NOT to be taken MAXIMUM distances and normally viewing distance will be less than the maximum figure given.

- | | |
|-----------------|---|
| • 2.3" (58mm) | Clear viewing up to 15 meters / 50 feet |
| • 4.0" (102mm) | Clear viewing up to 35 meters / 115 feet |
| • 6.0" (160mm) | Clear viewing up to 55 meters / 180 feet |
| • 8.0" (200mm) | Clear viewing up to 75 meters / 246 feet |
| • 12.0" (305mm) | Clear viewing up to 115 meters / 377 feet |
| • 14.0" (355mm) | Clear viewing up to 135 meters / 442 feet |
| • 16.0" (405mm) | Clear viewing up to 155 meters / 508 feet |
| • 18.0" (457mm) | Clear viewing up to 170 meters / 557 feet |

LARGE DISPLAY – HIGH BRIGHTNESS DAYLIGHT VIEWING LEDS

High brightness LEDs are used for OUTDOOR applications but can also be used for INDOOR environments where it might be murky to ensure visibility at all times.

LARGE LED TIMERS – REMOTE BOX OPTIONS / IR REMOTE

The Large Digit Timers can be set for TIME, START / STOP / RESET and OUTPUT functions.

The Remote Boxes are plug-in via a 5 meter cable and 'D' type connector or they can be controlled with an IR Remote. The plug-in Remote Boxes can be hand held or fixed to a Wall / Surface, whereas the IR Remote is purely hand held with a 10 meter send and receive operating distance.



MOUNTING OPTIONS OF LARGE DIGITAL CLOCK DISPLAYS

THREE models are available

- Wall
- Panel
- Suspension

WALL MOUNT

All Wall mounting displays have adjustable Tilt side brackets up to 8" (203mm) SINGLE LINE, thereafter they have welded ' L ' shaped fixed corner brackets (top and bottom)

CASE H (HEIGHT) AND L (LENGTH)

2.3" X 4 DIGIT LED TIMERS

- H100 x L294 x D61mm

2.3" X 6 DIGIT LED TIMERS

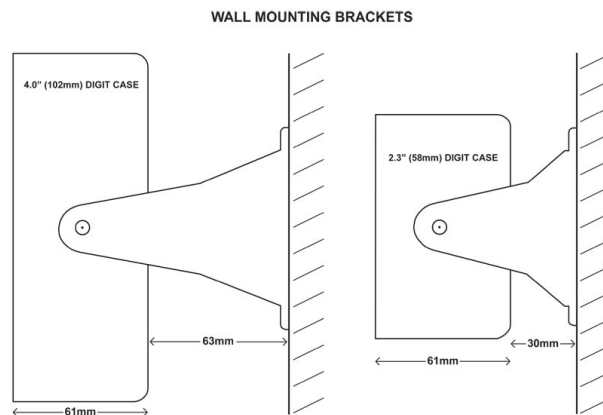
- H100 x L428 x D61mm

4.0" X 4 DIGIT LED TIMERS

- H155 x L434 x D61mm

4.0" X 6 DIGIT LED TIMERS

- H155 x 674 x D61mm



FLUSH PANEL MOUNT 2.3" AND 4.0" ONLY

CASE H (HEIGHT) AND L (LENGTH)

2.3" X 4 DIGIT LED TIMERS PANEL CUT OUT

- H110 x L304mm

2.3" X 6 DIGIT LED TIMERS PANEL CUT OUT

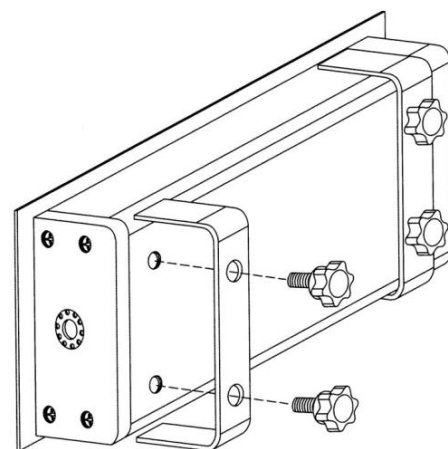
- H110 x L438mm

4.0" X 4 DIGIT LED TIMERS PANEL CUT OUT

- H165 x L444mm

4.0" X 6 DIGIT LED TIMERS PANEL CUT OUT

- H165 x L674mm



2.3" and 4.0" PANEL MOUNTING CASE

SUSPENSION MOUNT

Suspension mounting is usually used for Double Sided Displays, Large Digits and / or Multiline. To be viewed from a distance by a number of work staff in an area where common information is required. **These displays can have a variety of different inputs as well as time.**



LARGE DIGITAL LED TIMERS – GENERAL SPECIFICATIONS

- Control commands START / STOP / RESET
- Volt Free Momentary contact closure
- Number of digits available 2, 3, 4, 5, 6 for UP / DOWN / STOP WATCH Timers
- Number of digits available 6, 7, 8 or 9 for DAYS Timers

BATTERY BACK UP

- Standard on all Timers

IP / NEMA RATINGS

- IP54 / NEMA 3, 13 for Indoor use
- IP65 / NEMA 4 (4X) for Outdoor use

INPUT POWER SUPPLIES

- 95~265Vac
- 24Vdc
- 12Vdc

CONTROL INPUT OPTIONS

- Contact Closure
- NPN
- PNP
- 24V PLC
- RS-232, RS-485
- MODBUS

CONTROL OUTPUTS

- Alarm Setting (Relay)
- RS-485

ACCURACY

- 01% of range

OPERATING ENVIRONMENT

10 ~ +50 °C / 14 ~ 122 °F