

# COUNTDOWN <br> CD400 

## GENERAL FEATURES

Countdown display is designed to provide information to the drivers of vehicles about the remaining time of the red, amber and green aspect of the traffic lights.
The device is a two digit Countdown display having the capability to show the value of the Green, Amber and Red aspects.
Electronic display can be used as part of the traffic lights managed by controllers of any type, since to get
information of the duration of the signal light aspects the method used are:

- STAND ALONE MODE- Measuring the time of the availability of the supply voltage on the green, amber and red traffic light aspects
- DYNAMIC MODE- taking data to be displayed from the controller via a RS485 communication line
The device is supplied via the signal Red/Amber/Green at 230 Vac emitted from the Traffic controller outputs to command the related vehicular signal head.

The Countdown device is made of two units:

- Countdown Logic and Display unit
- Power Supply unit

The display and logic unit part is composed by:

- One p.c.b complete of all logic elements on one side
- A two seven segment digit realized with full colour RGB leds on the other side
The power supply unit is made of one power supply dedicated to power the logic and the Led.


## LUMINOUS INTENSITY

The ambient light is measured by a built-in photodiode and the luminous intensity of the display is automatically reduced at $50 \%$ during the dark period (ambient light under 1000 Lux).

## UNIT CONFIGURABILITY

The unit is configurable via its RS422 com port by which via a customized software can be selected:

- The Operating Mode
- The functionality of the display


## OPERATING MODE

To work properly the unit must operate on junction working in fixed cycle or anyway related to a traffic light aspect having fixed timing.
The device can be set to operate in two different modes:

- $\quad$ Self Learning mode
- Dynamic mode

The main difference between the two operating modes is that in case of a junction operating on different plan timing, into the first one, when the plan changes, you will have a wrong display for one cycle, while into the second one this will not happen.
The value displayed can be different in function of the selected operating and configuration mode.
The display of the value will start with a configurable delay (tenth of seconds) in respect to the related signal head aspect ON status, to respect the following clauses:

- The signal head aspect must be relevant as signalisation to the drivers
- The unit must stay OFF in case of intervention of the safety circuitry of the traffic controller.
In case of displaying values higher than 99 ", the unit can be configurable to display one of the following aspects for all exceeding time:
- Nothing
- 99 blinking
- two central segment blinking

In case of flashing condition on related traffic light, the display will stay OFF.

During display of vehicular green flashing aspect, the value can be shown as normal or blinking at a 2 Hz frequency.

## DISPLAY UNIT

Character dimension: 150x280 mm
Led quantity: 66+66 RGB
Red colour: 620nm
Green colour: 505 nm
Amber colour: 575 nm


EXTERNAL HOUSING


Dimension: 520x470x102 mm
Protection degree : IP55
Material: ALUMINIUM
Door: Rapid clutch
Colour: Dark brown

## ENVIRONMENTAL AND ELECTRICAL CHARACTERISTICS

Supply: 100 Vac to 260 Vac
Consumption: >3W < 20W
Operating temperature: $-40^{\circ} \mathrm{C}$ to $+80^{\circ} \mathrm{C}$

