



COUNTDOWN

CD400

The CD400 countdown timer is used to inform road users of the remaining time for the red, yellow, and green traffic signal phases.

Equipped with high-intensity RGB LEDs, it is controlled by a microcontroller and can be powered and operated directly from the traffic signal head to which it is attached.

The device features a two-digit countdown display capable of showing numbers in different colors, synchronized with the traffic light signals.

It can operate in two modes:

- Stand-Alone: without communication with the traffic signal controller.
- Dynamic: communication with the traffic signal controller via RS485 serial line.

The countdown is powered by a dedicated phase wire; where this is not feasible, it can be powered in parallel with the associated traffic signal head.

Luminous Intensity

Ambient light is measured by an integrated photodiode to automatically adjust the display brightness, which is reduced by 50% during nighttime (ambient light < 1000 Lux).

Configuration

The device can be configured via internal dip-switches for basic settings and through an RS485 communication port for advanced configurations using the dedicated SCAE software to select parameters such as:

- Operating modes
- Display settings
- Serial addressing

Operating Modes

- **Stand-Alone:** Without communication with the traffic signal controller, the countdown measures the activation times of the associated traffic light colors, displaying the measured times after an initial learning cycle. This mode is suitable for fixed-time systems.
- **Dynamic:** Communication with the traffic signal controller via RS485 serial line, where the controller manages the countdown times to be displayed. Suitable for systems with call phases and frequent plan changes.
- **Advanced Safety:** In dynamic mode, the device must still be connected to the associated traffic light signals to perform consistency checks between received commands and actual signal states. In case of inconsistencies, the display is immediately turned off.

Among the configurable options are:

- Power-On Delay: (default 1 second) ensures that the traffic light signals take precedence over the countdown display for road users.
- Count Overflow: When the displayed value exceeds 99, the following modes can be set:
 - Countdown off.
 - Flashing 99 at 1 Hz.
 - Flashing central segments (--) at 1 Hz in the corresponding color.
 - Display of flashing minutes at 1 Hz.
- Flashing Yellow Mode: If the traffic system is in flashing yellow mode, it can be configured as:
 - Countdown off.
 - Flashing central segments (--) in yellow at 1 Hz.
- Flashing Green Mode:
 - Solid green digit display.
 - Flashing green digit at 2 Hz.

Display

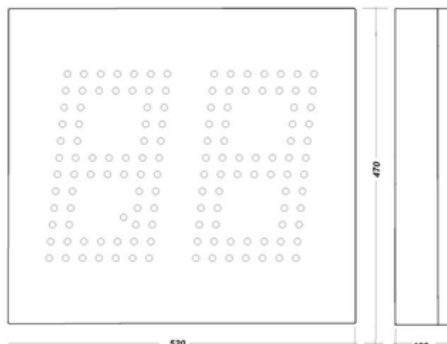
- Digit size: 150 x 280 mm
- Number of LEDs: 66 + 66 RGB
- Red wavelength: 620 nm
- Green wavelength: 505 nm
- Yellow wavelength: 575 nm



Display CD400

External Enclosure

- Dimensions: 520 x 470 x 102 mm
- Protection rating: IP55
- Material: Aluminum
- Door: Quick release
- Color: Black



Contenitore Esterno
CD400

Environmental and Electrical Characteristics

- Power supply: 100 VAC to 260 VAC
- Power consumption: >3W and <20W
- Operating temperature: -40°C to +80°C



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Cap. Soc. € 3.000.000,00 i.v. Reg. Imprese MI 679633 C.F. e P. IVA 00857000152
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