

TS-PC500 Programmable Controller

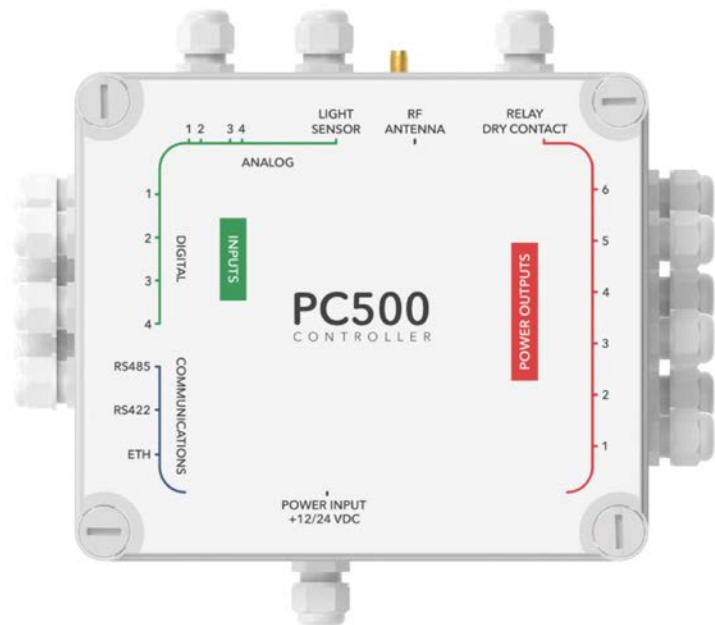
General Description

The TS-PC500 Programmable Controller allows you to set all the operating parameters of road studs or road signs. The controller's menus are dynamic and will be presented depending on the user-selected configuration. The configuration can be made directly on the controller's display menu or via configuration software that allows you to set all the operating parameters via a USB interface.

The TS-PC500 Plus version allows expansion boards to be installed, making it possible to extend the features of the TS-PC500.

Features

- Microcontroller based technology
- Firmware update available through USB connection
- Hardware upgrade by connectable expansion boards
- Adaptive controller to numerous applications
- Configuration via LCD display and navigation buttons or via configuration software
- Ability to schedule different configurations due to its high precision real time clock
- High diversity of communications available TTL, RS232, RS422, RS485, USB, SPI, ETHERNET, RF 433/868/915 MHZ, LORA
- 12V or 24V input power with over voltage and short circuit protection
- Digital outputs with short circuit and over temperature protection, available in 24V, 12V
- Digital inputs with voltage isolation, driven by voltage or dry contact
- Digital outputs: up to 6
- Relay output: dry contact
- Digital inputs: up to 4
- Analog inputs: up to 4
- Optional light sensor
- Protection index: IP65 (depending on the configuration)
- Certifications: CE & RoHS



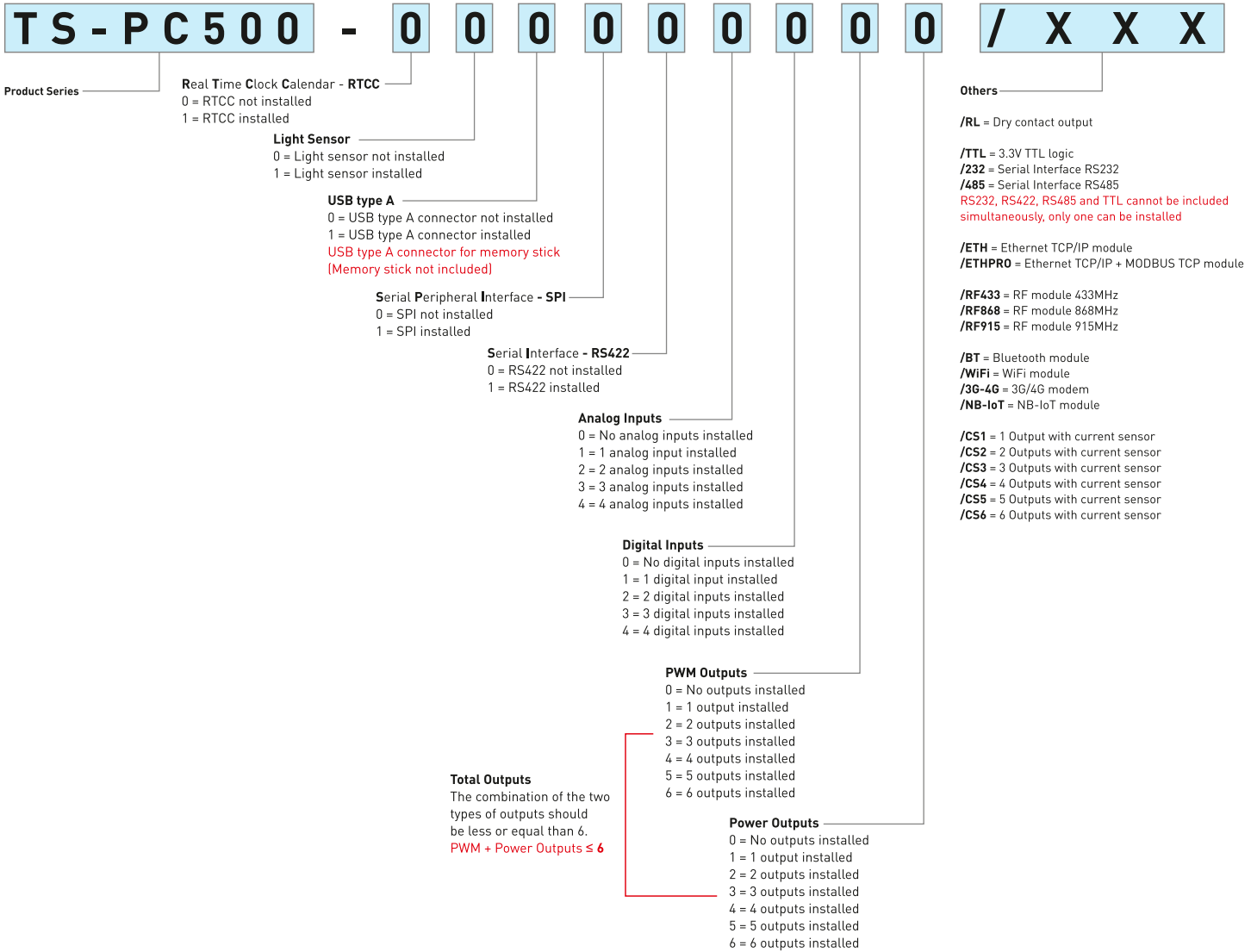
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Ordering Information



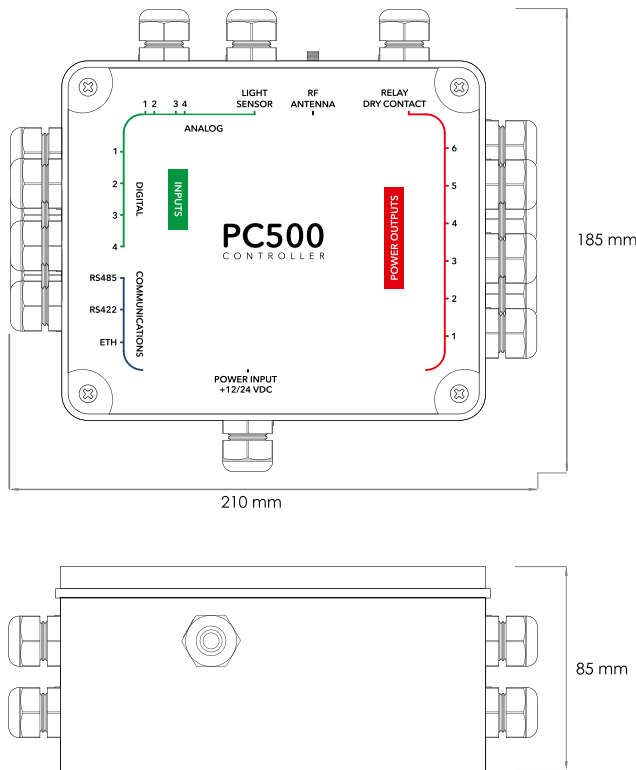
Example: PC500 with light sensor, 2 digital inputs, 4 power outputs and Ethernet TCP/IP module

TS-PC500 - 0100000204 / ETH

Example: PC500 with light sensor, 3 digital inputs, 5 pwm outputs, 1 power output, relay and RS485 communication

TS-PC500 - 0100000351 / RL / 485

Technical Features



Outputs Modes of Operation

Always On, Flashing or Sequential
(Other modes available upon request)

Electrical Features

Power Supply	12 V DC to 24V DC
Current Consumption	15 mA ¹
Output Voltage	12 V DC to 24V DC
Outputs Number	6 (Expandable up to 12)
Maximum Current by Output	2A
Total Maximum Output Current	10A
Working Temperature	-25 °C to +85°C

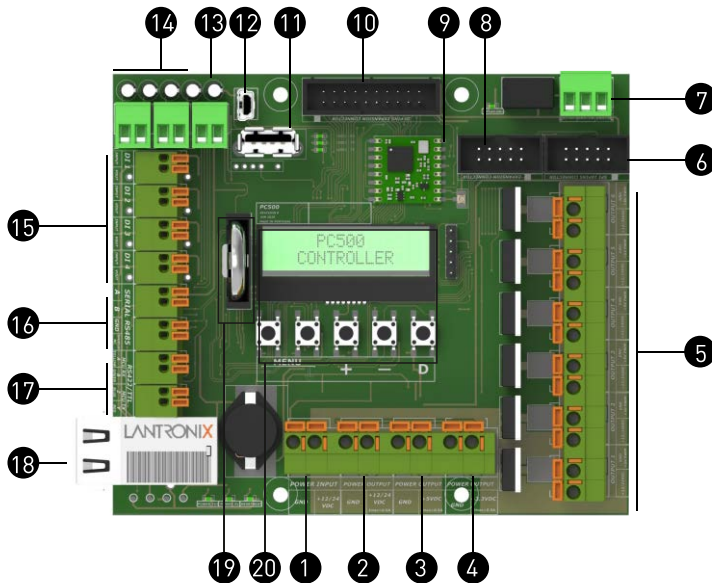
¹⁾ Minimum Stand By consumption. The Stand By current consumption may increase depending of the PC500 configuration.

Mechanical Features

Enclosure Material: Thermoplastic
Dimensions: 8.3" x 7.3" x 3.3" (210 x 185 x 85mm)
Protection Index: IP65
Weight: 1.2 lb. (0.55 Kg)

Controller Details

- 1 - 12V DC or 24V DC Power Input
- 2 - 12V DC or 24V DC Power Output (max. 0.5A)
- 3 - 5V DC Power Output (max. 0.5A)
- 4 - 3.3V DC Power Output (max. 0.5A)
- 5 - Up to 6 Digital Outputs (Power or PWM)
- 6 - SPI Connector
- 7 - Dry Contact Relay Connector
- 8 - 10 Pin Expansion Connector
- 9 - Low Power RF 433/868/915 MHz Module
- 10 - 20 Pin Expansion Connector
- 11 - USB Type A connector
- 12 - Mini USB connector
- 13 - Light Sensor Input Connector
- 14 - Up to 4 Analog Inputs
- 15 - Up to 4 Digital Inputs
- 16 - RS485 Communication
- 17 - RS422 or TTL Communication
- 18 - Ethernet Communication Module
- 19 - High Precision Clock
- 20 - Configuration Menus (LCD + Buttons)



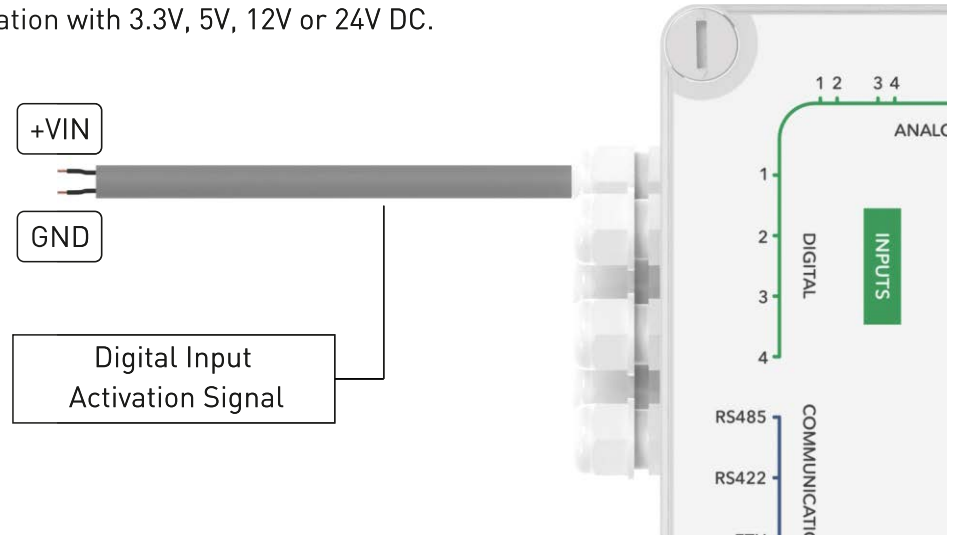
Digital Input Activation Options

The digital inputs of the PC500 controller may be **driven by voltage or dry contact**.

If the digital inputs are to be driven by voltage, when ordering the selected voltage must be mentioned. It's possible to select between 3.3V, 5V, 12V or 24V DC (default is 5V)

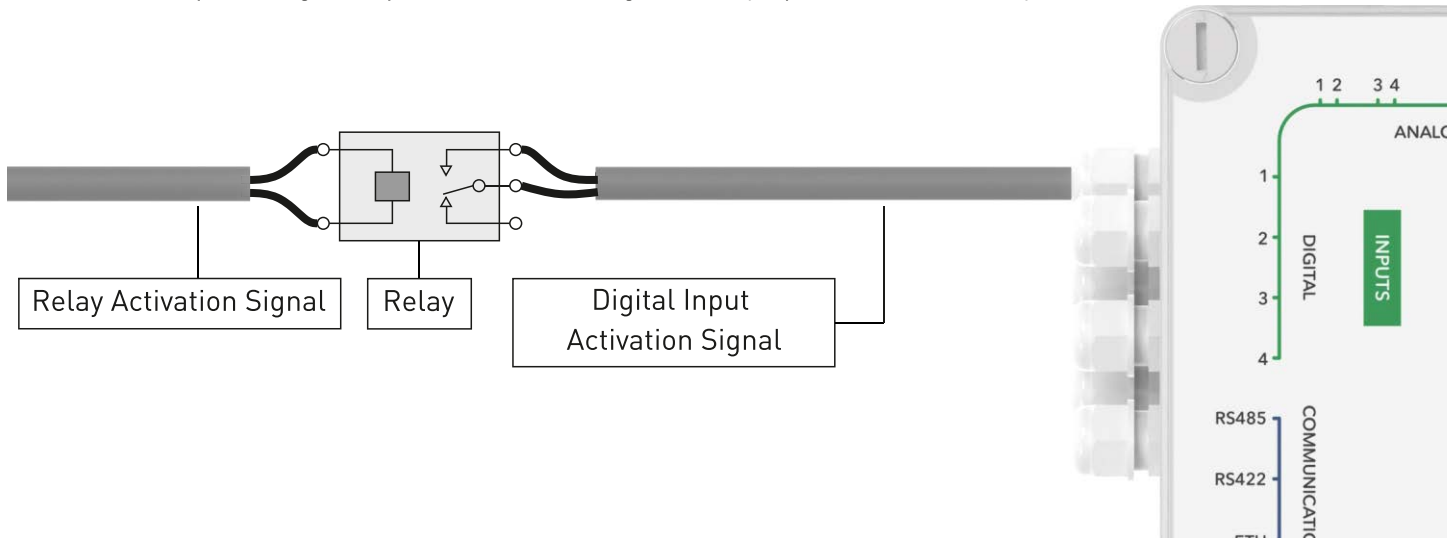
CONTINUOUS VOLTAGE OPTION

Example of digital input activation with 3.3V, 5V, 12V or 24V DC.



DRY CONTACT OPTION

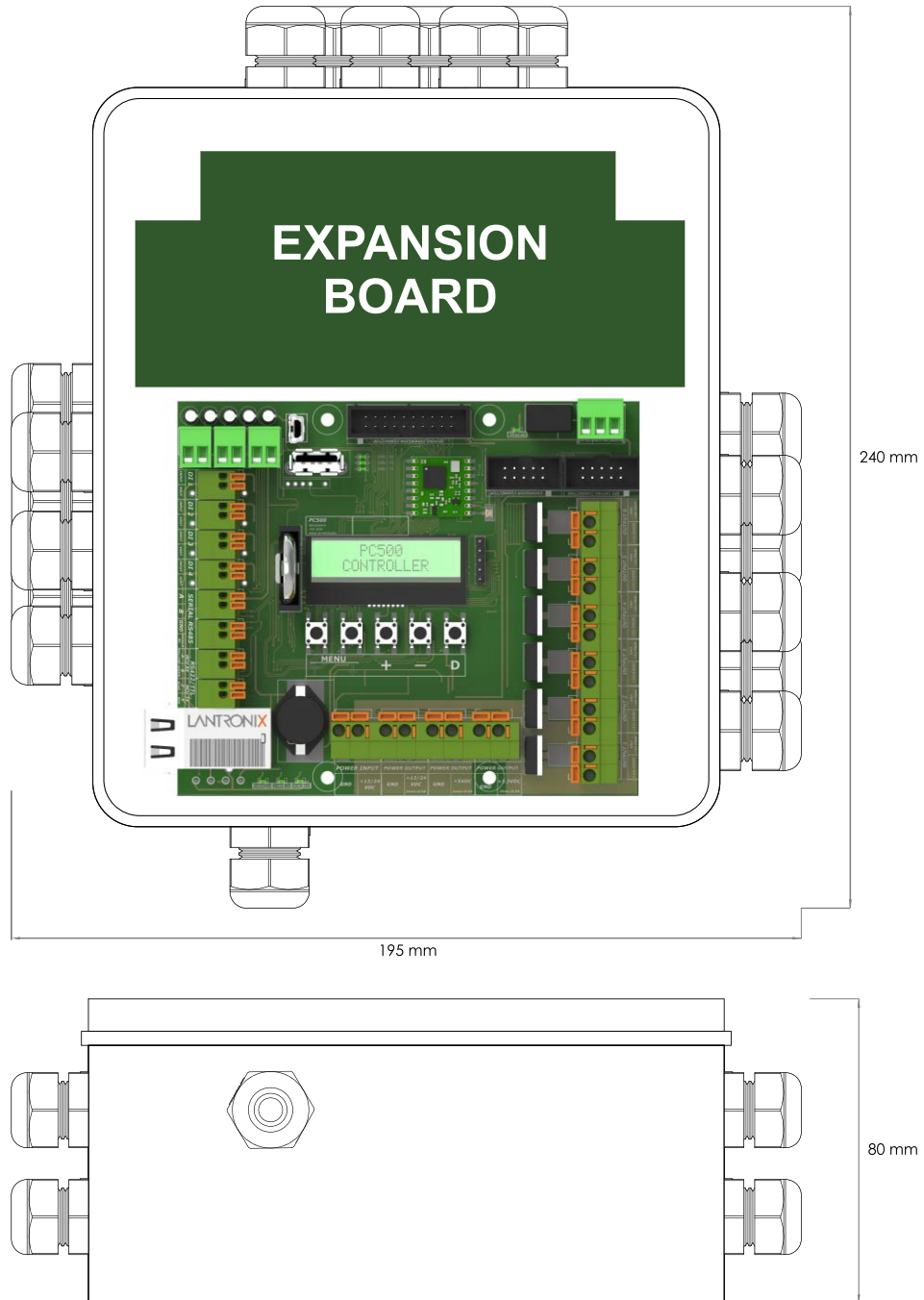
Example of digital input activation using normally open contact of relay.



Plus Version

The PC500 controller **Plus Version** refers to the standard version with an expansion board. The plus version box is slightly larger.

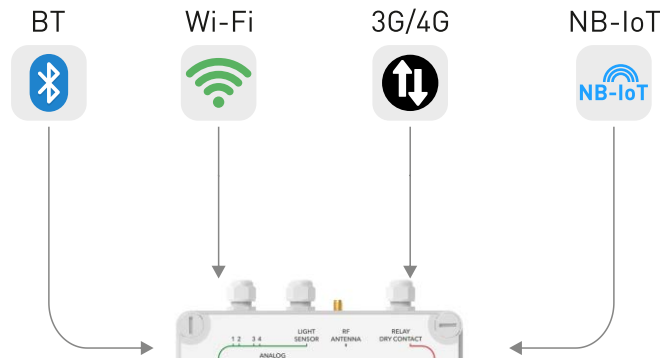
DIMENSIONS



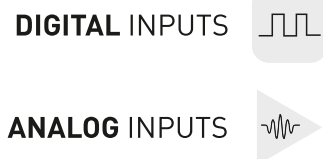
Expansion Boards

Due to its expansion capability, it's possible to connect expansion boards to PC500 that add extra features in case that the ones already included in PC500 doesn't suit the needs of the project. Among other features, it's possible to add:

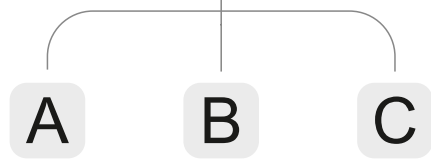
ADDING MORE COMMUNICATIONS



ADDING MORE INPUTS



ADDING MORE OUTPUTS



OTHERS BY REQUEST