



PC500


Programmable Controller


PC500 allows you to **set all the operating parameters of road studs or road signs**. The controllers **menus are dynamic** and will be presented depending on the **user-selected configuration**.

The **configuration** can be made **directly on the controller** on their **display menu** or **via configuration software** that allows you to **set all the operating parameters of the controller via a USB interface**.


 Digital Outputs
Up to 6

 Relay Output
Dry Contact


 Digital Inputs
Up to 4

 Analog Inputs
Up to 4

 Sensor
Light Sensor

 Protection Index
IP65
(depending on the configuration)

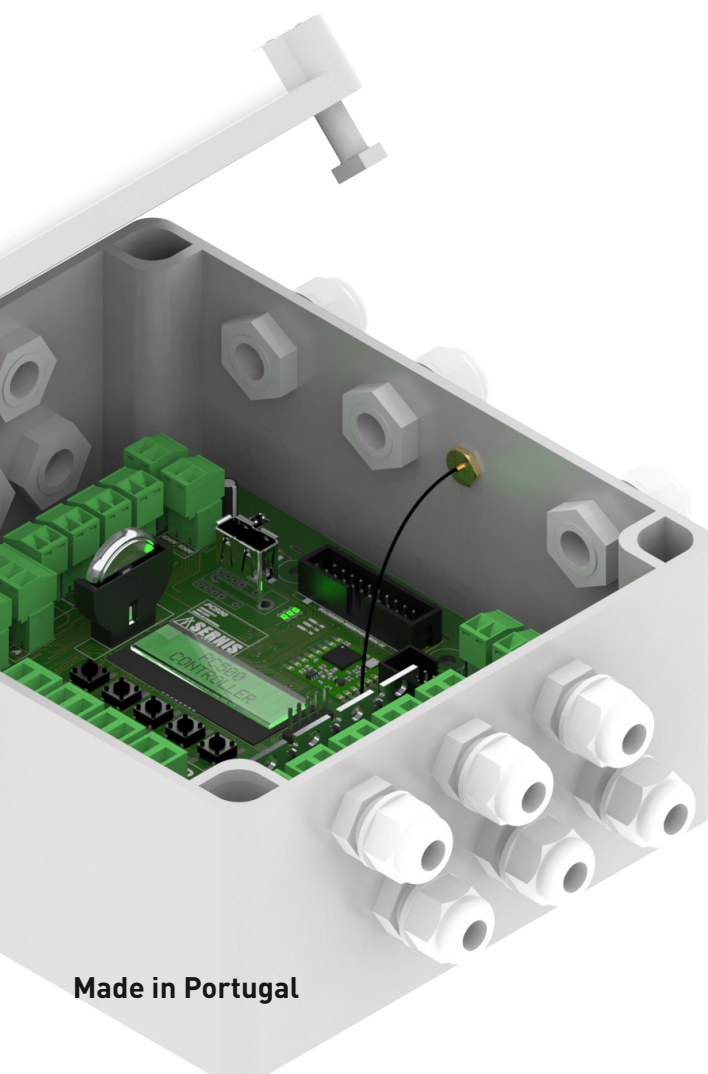
 Firmware Update
By USB

 Hardware Upgrade
By Expansion Boards

 Clock
High Precision RTCC

 Communications
TTL, RS422, RS485
USB, SPI, ETHERNET,
RF 433/868/915 MHZ,
LORA

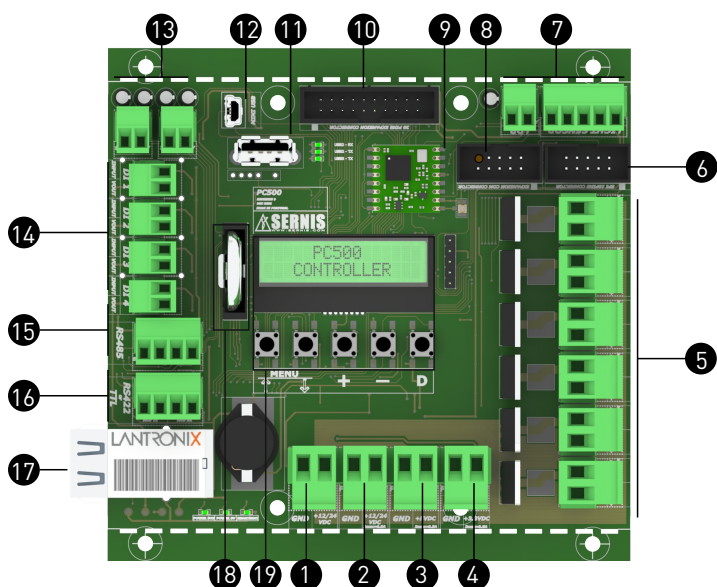
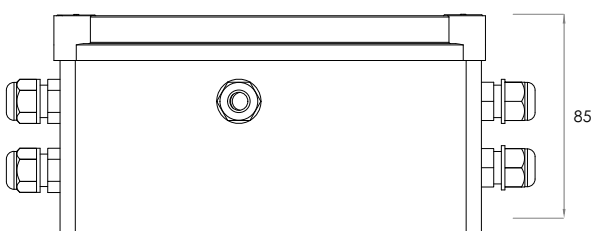
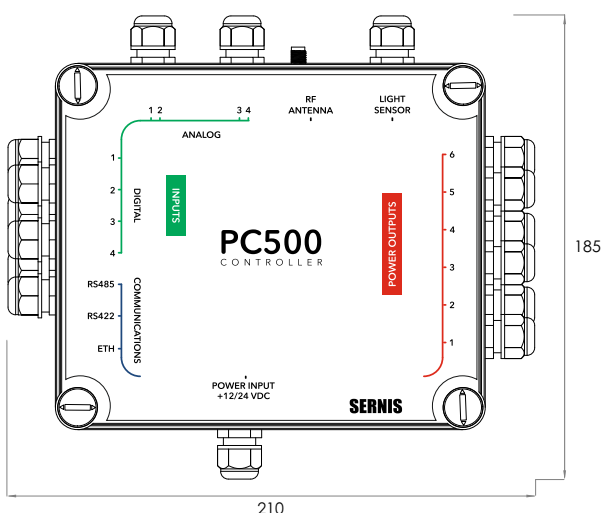
 Certifications
CE **RoHS**



Made in Portugal

- **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
RS232, RS422, RS485, USB, SPI, ETHERNET, RF433/686/915 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

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: 210 x 185 x 85 mm

Protection Index: IP65

Weight: 0,550 Kg

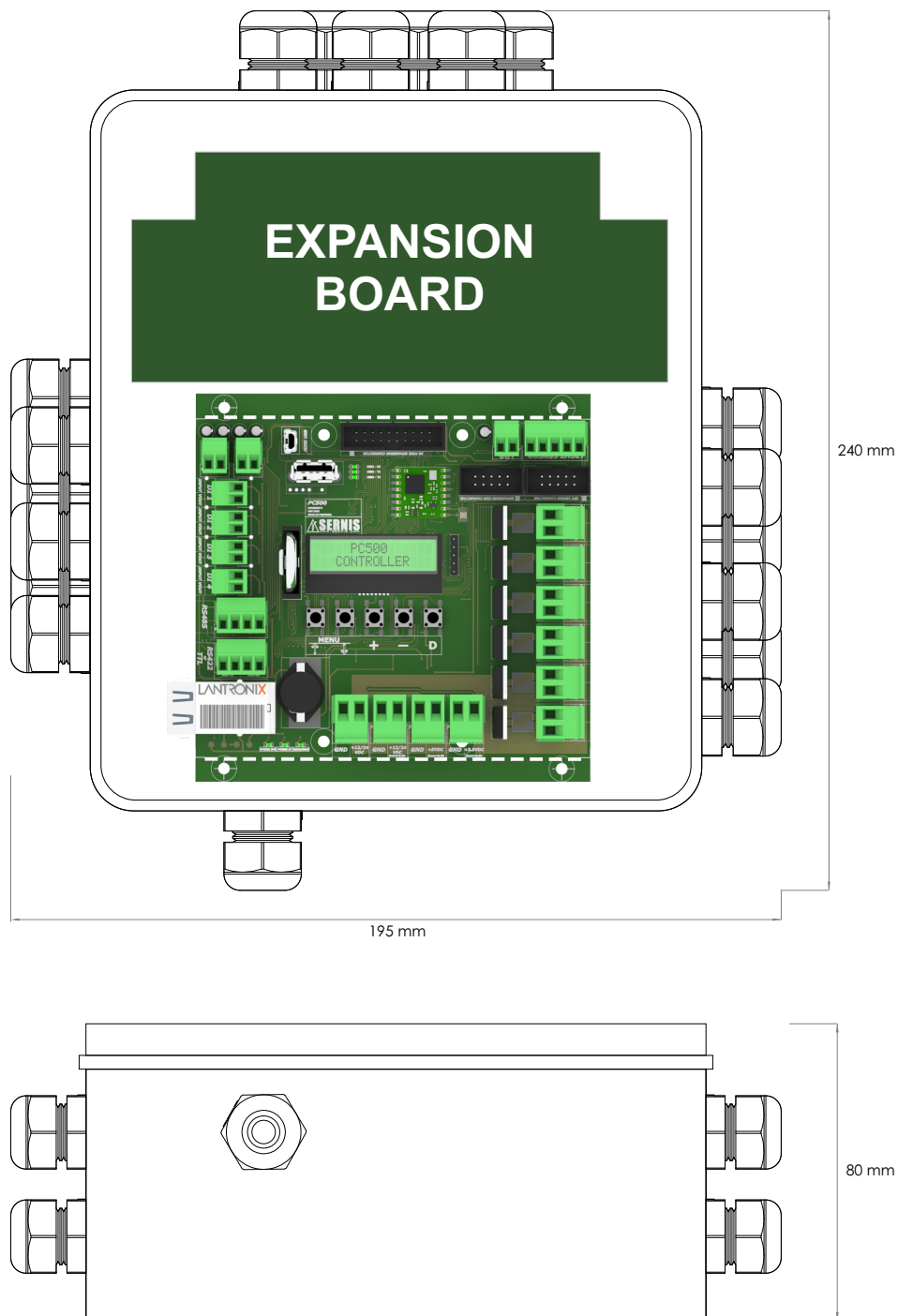
Controller Details

- 1 - 12V DC or 24V DC Power Input
- 2 - 12V DC or 24V DC Power Output (máx. 0.5A)
- 3 - 5V DC Power Output (máx. 0.5A)
- 4 - 3,3V DC Power Output (máx. 0.5A)
- 5 - Up to 6 Digital Outputs (Power or PWM)
- 6 - SPI Connector
- 7 - Light Sensor Input 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 - Up to 4 Analog Inputs
- 14 - Up to 4 Digital Inputs
- 15 - RS485 Communication
- 16 - RS422 or TTL Communication
- 17 - Ethernet Communication Module
- 18 - High Precision Clock
- 19 - Configuration Menus (LCD + Buttons)

Plus Version

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

DIMENSIONS



Digital Input Activation Options

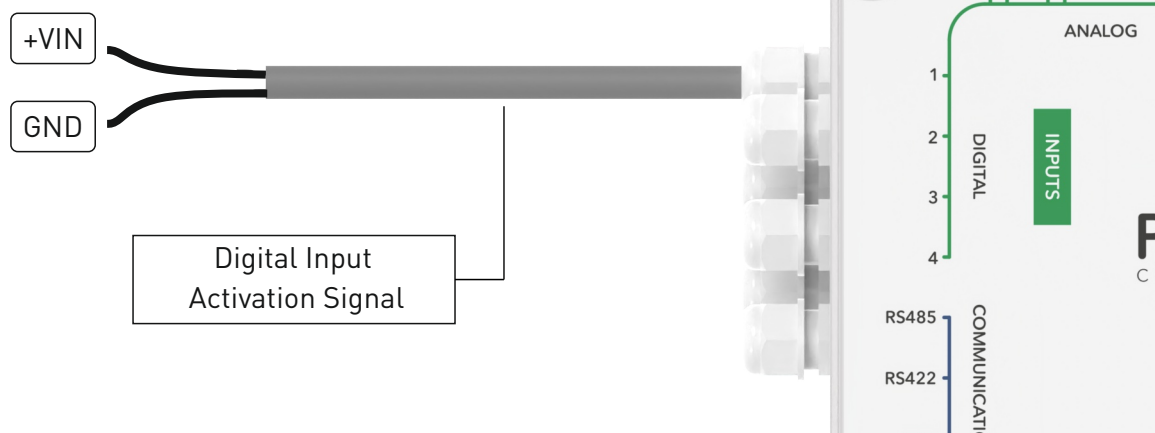
The digital inputs of the PC500 controller may be **driven by voltage or dry contact**.

If the digital inputs are to be driven by voltage, when ordering the selected voltage must be mentioned.

Its possible to select between 3.3V, 5V, 12V or 24V DC (default is 5V)

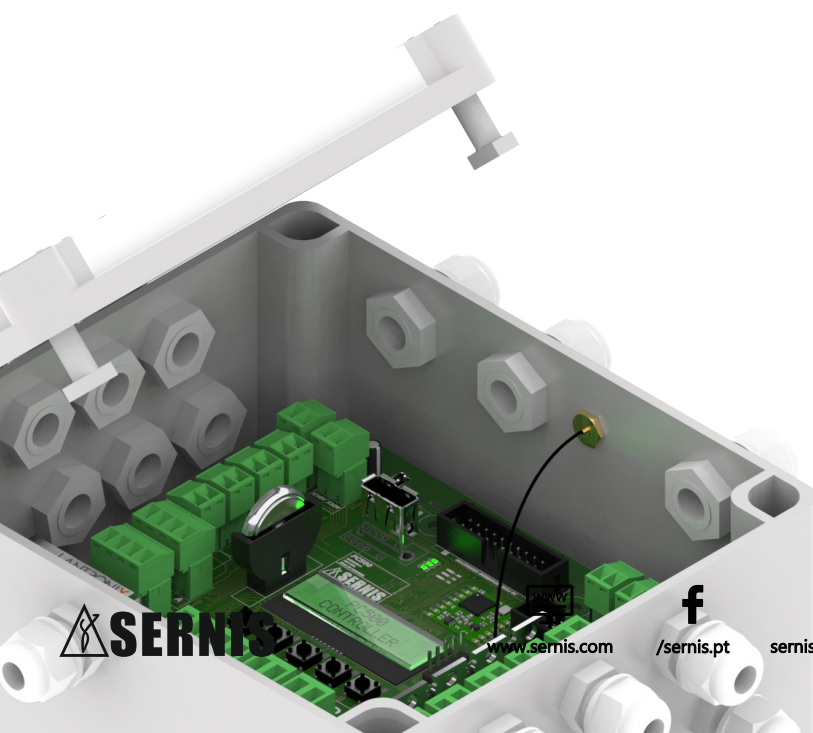
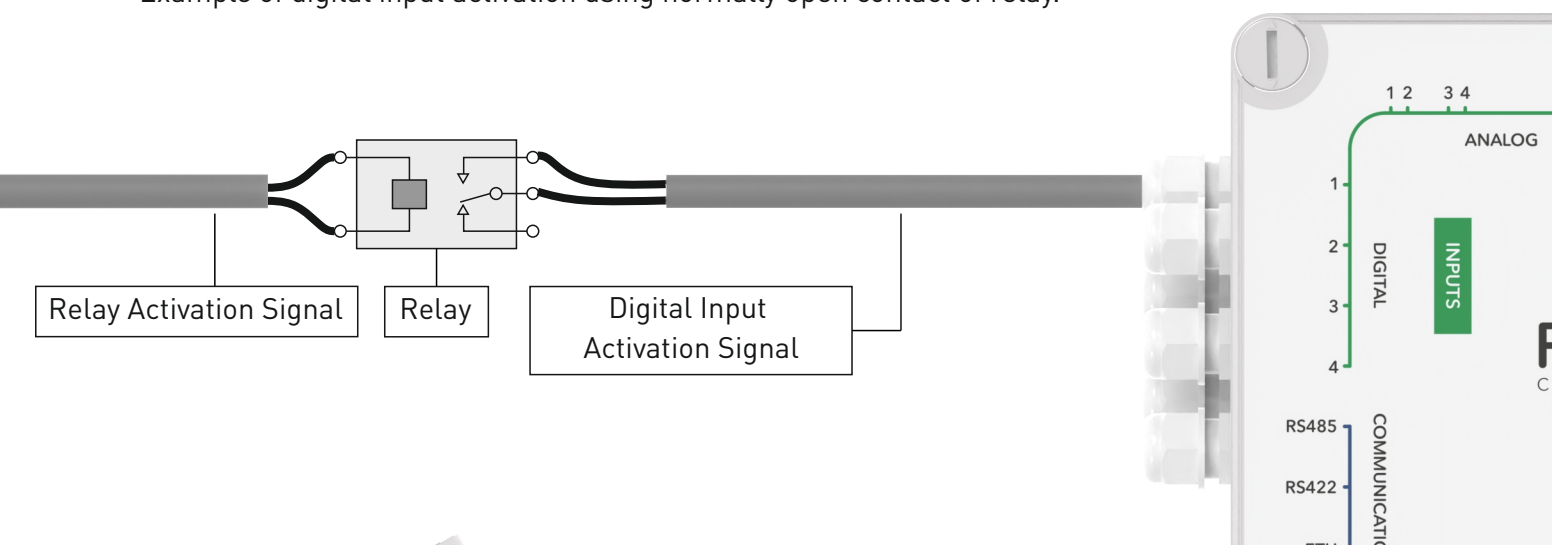
CONTINUOUS VOLTAGE OPTION

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.



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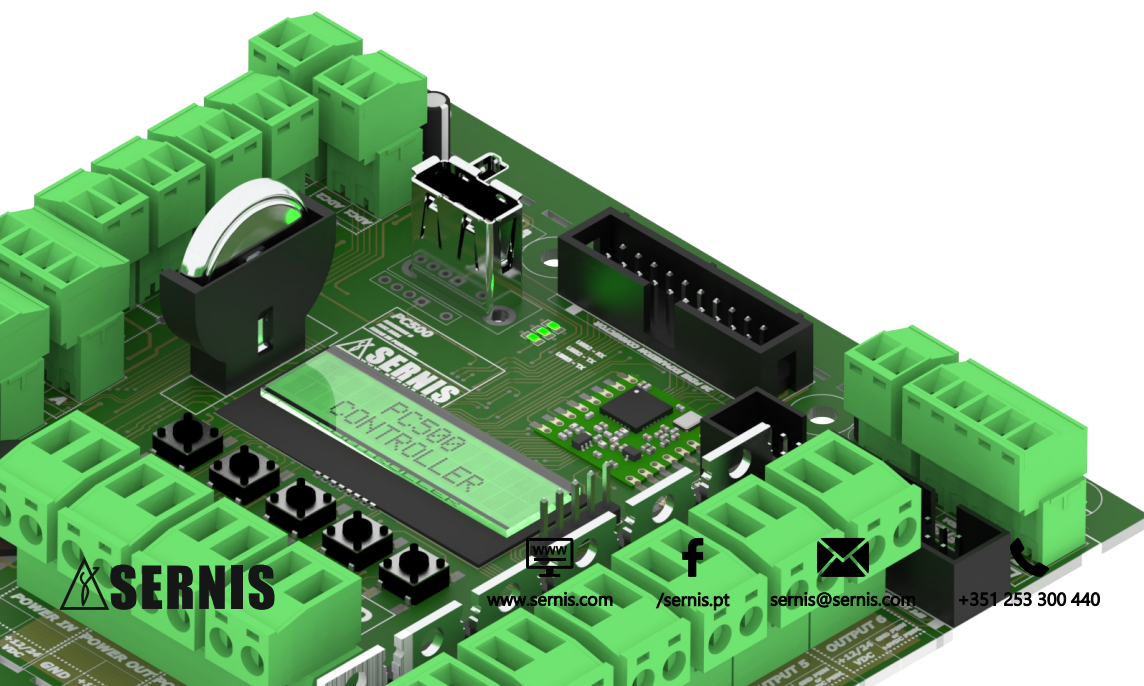
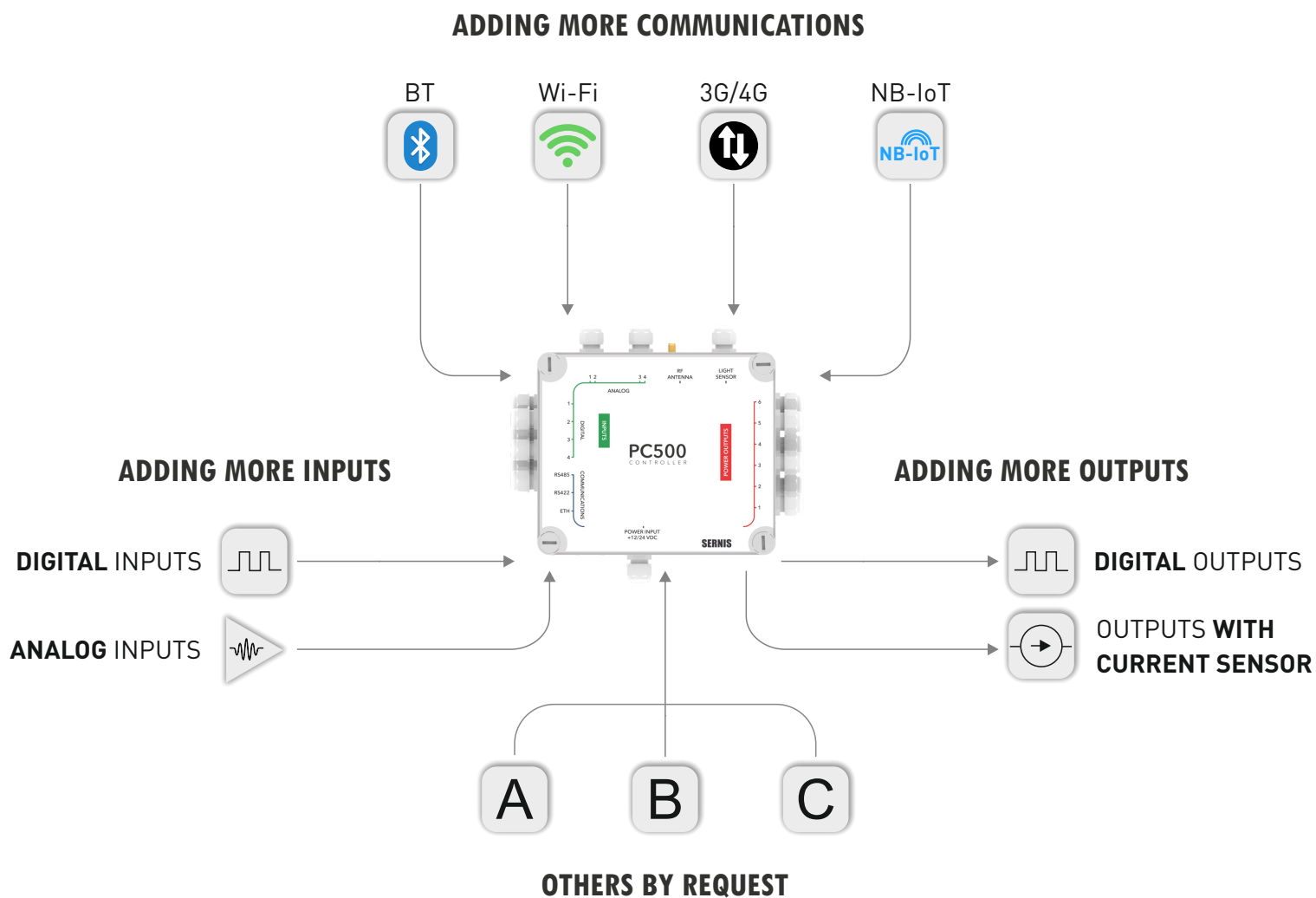
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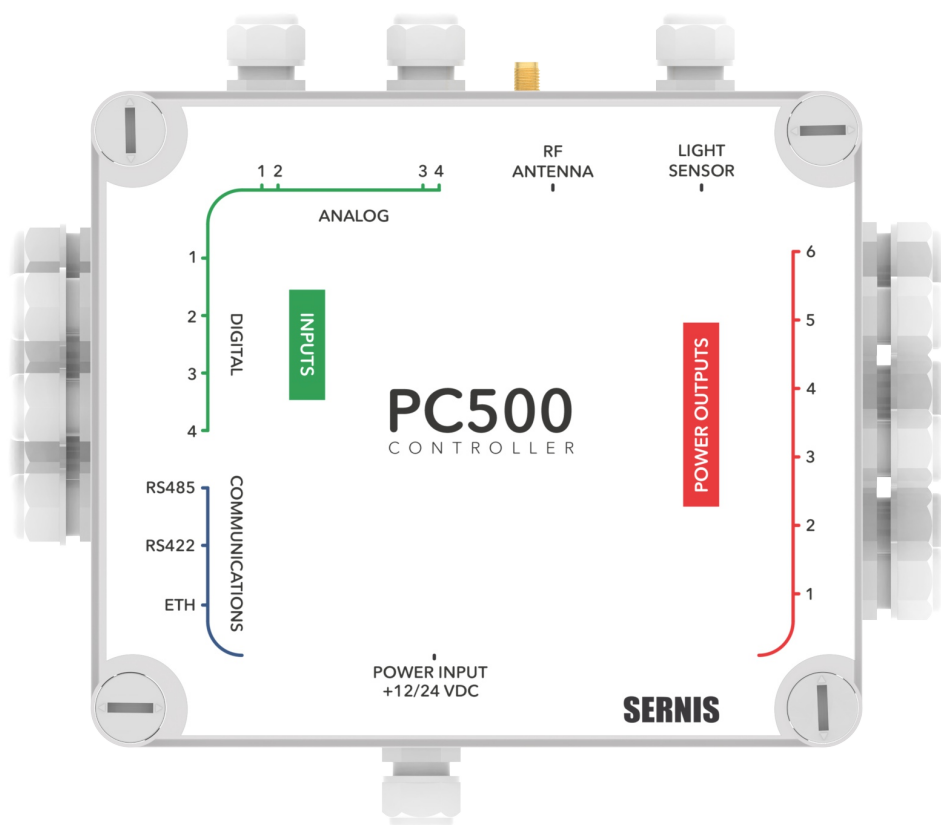
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Expansion Boards

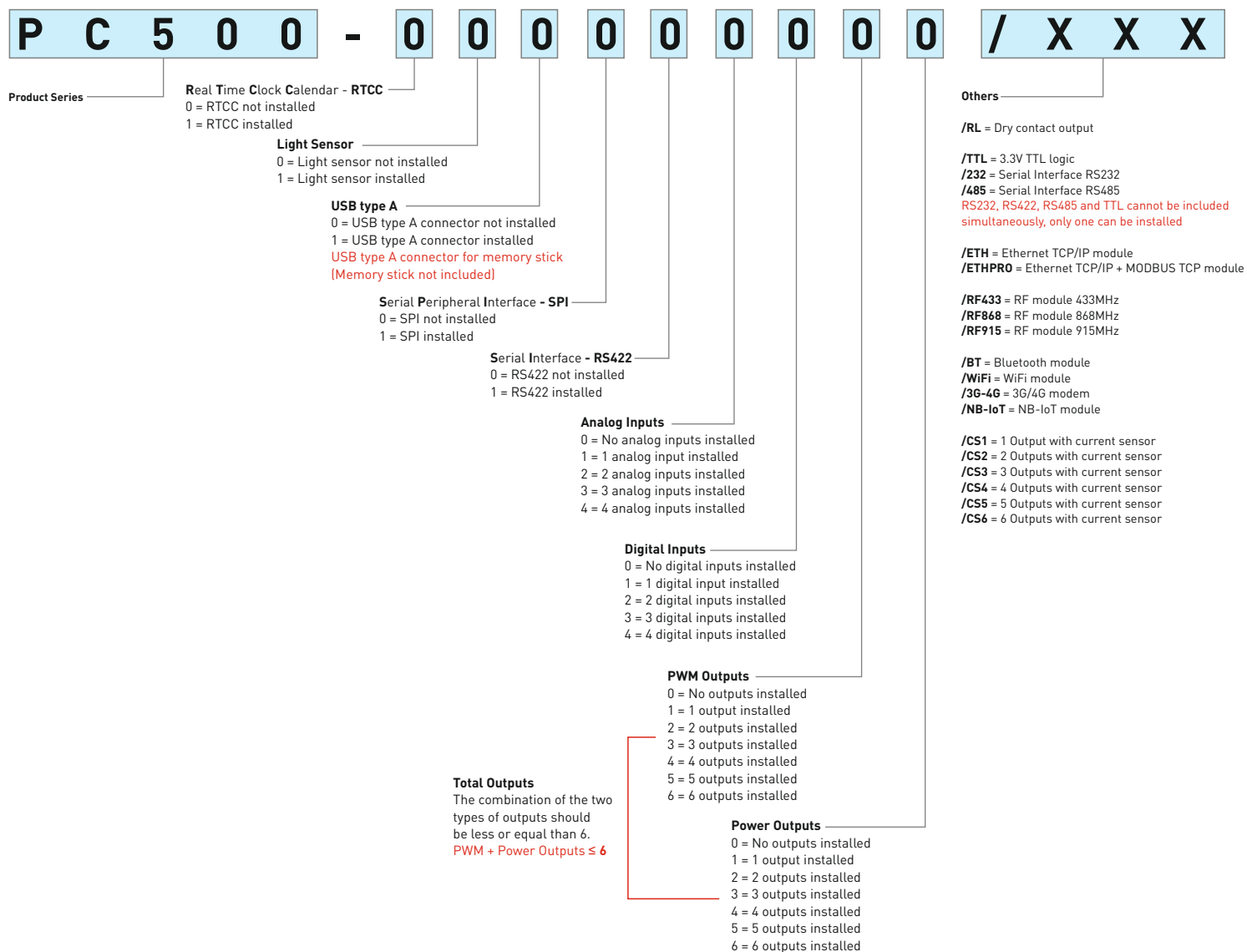
Due to its expansion capability its possible to connect expansion boards to PC500 that add extra features in case that the ones already included in PC500 doesn't suit the needs of the project. Among others features its possible to add:



Product Photos



Ordering Information



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

P C 5 0 0 - 0 1 0 0 0 0 2 0 4 / E T H

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

P C 5 0 0 - 0 1 0 0 0 0 3 5 1 / R L / 4 8 5

