

New PL200 Console technical page and operating instructions

General

This console comes to replace the existing model series from PL200 to PL200E

This console can communicate with new PL500 sensors as well as old PL500 sensors

This console can also communicate with additional various types of sensors in the future, such as temperature monitoring sensors, relative humidity, CO2 and more.

Please note that as of the time of writing this technical page, the interface language is English only.

When there will be new software releases, we will update it in our web site.

Contents of the box

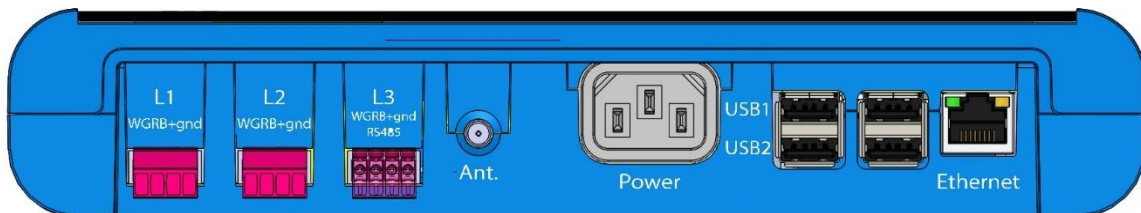
1. PL200 console with wall fixation device
2. "Kettle" Power Cord

Technical Data

1. Input voltage 85-305V AC
2. Input voltage for 12V DC sensor line
3. Measurements
 - Length: 180 mm
 - Width: 250 mm
 - Depth: With mounting device 53 mm, without 45 mm

Cable and connectors connecting

1. Install the console on the wall next to a power outlet.
2. Plug in an input power cord (Desktop PC jack cable)
3. Connect RJ45 LAN cable if necessary, to create an alert array (Modbus/IP)
4. L1, L2 floating cable input on the following left-to-right connection:
White (W), Green (G), Red (+) R, Black (-) B and Earth
5. L3 Cable input for other RS485 or "dry contact" sensors (optional)
6. USB1 to USB4 jack



Picture No. 1: console bottom side



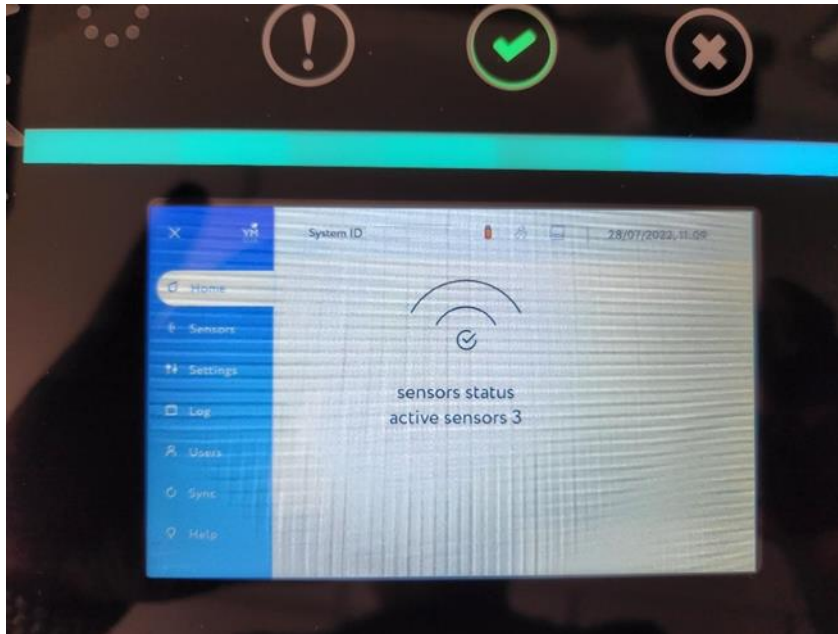
The boot processes

1. Power - The console does not have a power switch and turns on when the console is plugged into AC Supply.
2. The LEDs lighting process includes different stages console boot.
The console ready to work when:
 - 2.1. Company logo YM turns blue and the LEDs stripe turns light green with a blue dot running from left to right.
(The booting process has a few stages including the LED stripe turning purple-green.
Even upon turning green with a blue dot running, the stripe might turn purple-green if one of the two lines isn't detected)
 - 2.2. A logon screen appears with a display that indicate the quantity of sensors connected to the console.
 - 2.3. Green V mark turns on.
 - 2.4. On the right side is a date and time appear (the console has an RTC, Real Time Clock mechanism)

Note: In order to update the date and time: connect once to an external computer and the date and time are updated.



Main Screen Correct Status



Picture No.2: A console with 3 sensors connected. Green V mark lighted and the LED stripe is green with a blue dot running

3. Possible malfunctions and trouble shooting

3.1. The YM logo remains green and the LED stripe remains pink as an undistinguishable state. Try to reset the console by re-plugging the power. If the problem consists and the console does not fully initialize please contact the company

3.2. Colors vary in the LED stripe and the company ink changes colors. Please inform the company.

4. Upon connecting the sensor line, the number of sensors will be detected.

If not all sensors are detected please check:

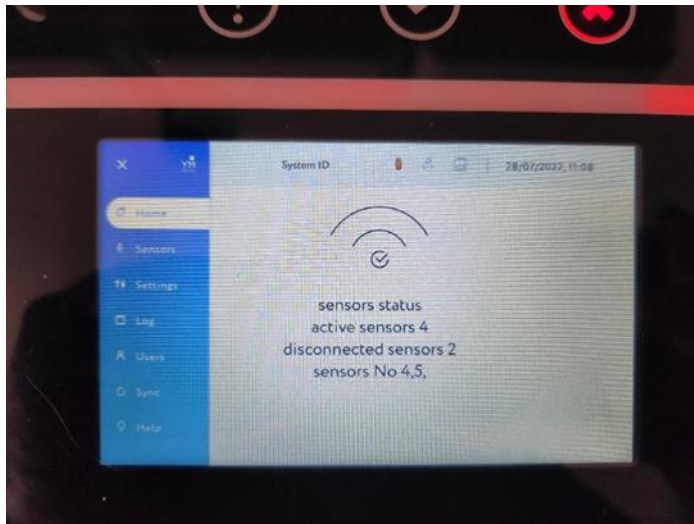
4.1. Check the integrity of the line (YM technicians only).

4.1.1. Properly connects tendons to a right-to-left connector according to colors (Black+Ground, Red, Green, White)

4.1.2. Make sure that the sensor line is connected to one of the L1/L2 sockets

4.1.3. Adjusting sensitivity in the line amplifier box until you will see all sensors in this line (If applied).

- 4.1.4. Sensor test: Immerse the sensor in water until the console detect it and send Alarm on this sensor ID. You must dry the sensor in the end.
- 4.1.5. It is recommended that you connect the sensor line when the console is not powered ON. After connecting the sensor, the console can reconnect to power safely.
- 4.1.6. Disconnected sensors



Picture No. 3: The Console is on alert due to 2 disconnected sensors (out of a total of 6)

5. Alerts

5.1. Leak alert

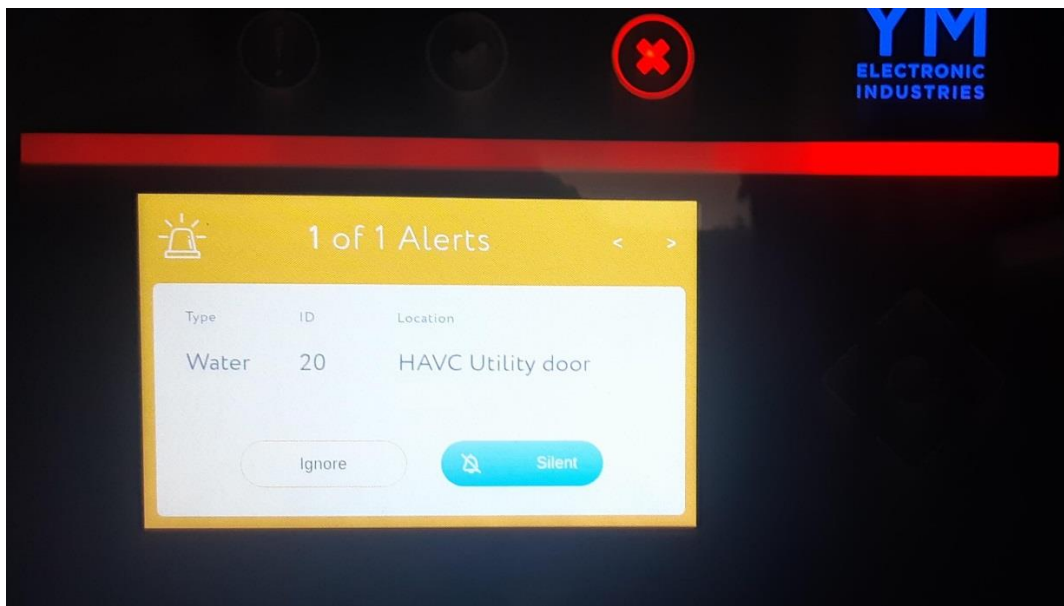
- 5.1.1. Humming horn
- 5.1.2. LED stripe turns from green with blue dot that ran to running red.
- 5.1.3. X-mark turns on red.
- 5.1.4. A screen will appear where there will be a description of the sensor alerting.
- 5.1.5. If there are several simultaneous alerts, you can browse through them using the arrows in the upper- right screen corner.
- 5.1.6. Upon receiving the alert, you can mute the horn with a touch of the silent button.
In such a situation, this button is used to stop the alert the console will become silenced, and the LEDs stripe will become permanent orange. The red X will have an orange exclamation point turned on.
- 5.1.7. If a new alert is entered, the LEDs stripe will turn a running red.

5.1.8. You can also click the ignore button. This button is used to stop the alert.

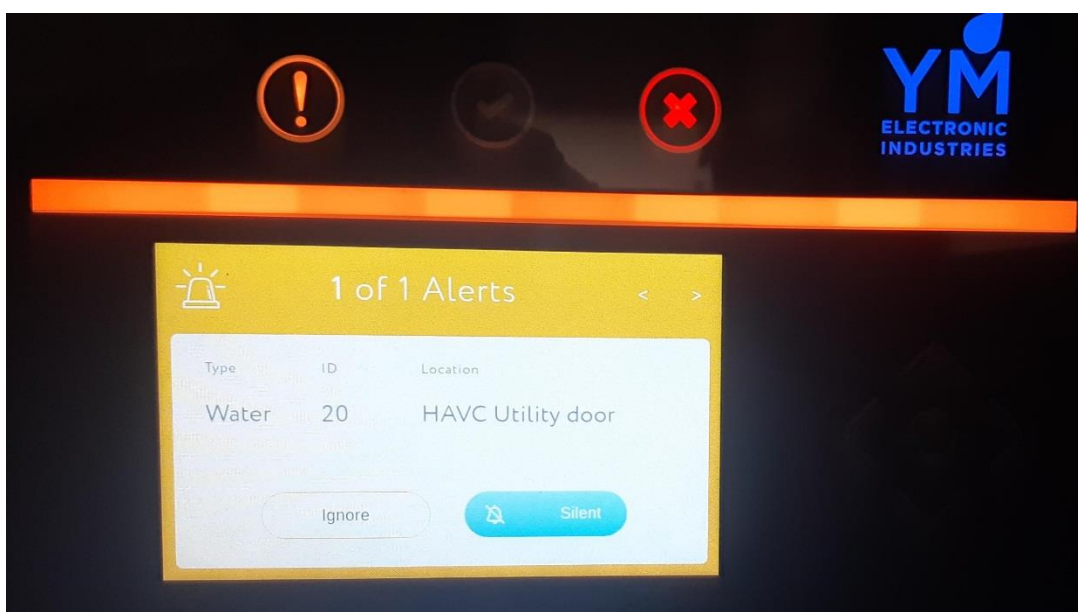
The LEDs will become permanent orange. The console will stop beeping and an alert can be handled.

5.1.9. When the alert status is complete, the console will automatically turn back to the home page depicting the number of active sensors as in picture No. 2

Alert



To mute, click the **Ignore** button



More Data

1. Maximum number of sensors is 125 (recommended up to 100). Maximum distance varies depending on line loads. Up to 2000 meters of infrastructure with a load of 100 sensors
2. For longer ranges, an amplifier might be applied
3. Sensors are threaded one by one. Each sensor has its own box.
4. The console can connect PL500/PL510Ex/PL530Ex flood detection sensors.
5. The sensor can be programmed according to the following parameters:
 - 5.1. Number
 - 5.2. Sensitivity (generally important when a sensor is connected to a PLFL flood cable).
 - 5.3. Time spent.
 - 5.4. LED modes:
 - 5.4.1. Right blinking green – working mode
 - 5.4.2. Fixed red in – leak alert mode
 - 5.4.3. Red blinks or there is no depiction of LED in sensor - fault sensor or system
 - 5.4.4. No LED depiction in any sensor or system-fault branch box or power failure
 - 5.4.5. Green and red LEDs blink intermittently for a short time -sensor boot (at the end of the process led will turn to flashing green only unless an alert is entered)
6. On the back of the console is a window for the RTC button type CR1220 3V battery) Time is adjusted by a YM technician. Battery life span of approximately 3 years



Picture No. 4: RTC battery slot

7. Connecting the PL200 Console to a BMS using modbus/IP
 - 7.1. An allocation of the following parameters: IP, Subnet Mask and Default Gateway
 - 7.2. The Console is updated by a company's technician
 - 7.3. A registers list describing the connected sensors is supplied by YM to the BMS vendor.
 - 7.4. The BMS vendor should describe the three phases: working ("existent"), alert and disconnected ("non-existent")
 - 7.5. Upon an alert the operating person touches the ignore button. The alert will be depicted on the BMS as long as the leak is on going or the sensors was lifted and wiped. Once the leak is over, the alert will disappear from the BMS
 - 7.6. Power failure can be depicted on the BMS

8. Comments
 - 8.1. The YM technician is the only one authorized to open the console for handling purposes. Warranty will be not valid if someone else will open the console.
 - 8.2. In case of a flood alert when a PL500 sensor is connected to a PLFL cable that extends the sensor's range of sensor, the sensor can be disconnected from the cable by pressing the male/female connector.
 - 8.3. Occasionally recommended to perform a health check using sensor wetting

System General Description

- **The console main function**
 - scans all connected water detector verify each detector response
 - Alerts for unresponsive detector
 - Alerts for detector water level detect alarm
 - Local display detectors status (Alarm and Zone)
 - TCP/IP connection to building automation system via Ethernet
 - Detector Alarm and status map with MODBUS/IP
 - All detector 12V powered from console
 - All detectors are bus serial communication to console
 - The Console power from main 220V 10W
 - The console can support all network protocols
 - Console operating system LINUX (Debian Buster)
 - Web interface support
- **Console testing**
 - Console health testing via ethernet
 - Console and detectors status response via MODBUS TCP/IP at port 502
 - Web status view at port 8080
 - 5" LCD touchscreen display
- **Console configuration**
 - Detectors connection map (Detector num and detecting zone description)
 - Detectors MODBUS map
 - Other setting intervals and detection sensitivity for eliminates faults alarms
- **PL500 BUS water detector**
 - Power feed 12V from connection bus
 - 4 wire connection power and serial interface bus
 - 2 Led indication GREEN blinking detector health and red water flow detect
 - Low power consumption ~10mW
 - Detect sensitivity setting support
 - Detect interval setting support to ignore general moisture alerts

PL200 Console Modbus structure

- PL200 Console has a built-in Modbus over TCP/IP
- Constant Modbus connection
- Upon allocating an IP address (DHCP or Static IP) you can connect to the console via the 502 port
- No limit with number of connecting parties
- If multiple register calls are applied, it is recommended to use a single TCP connection and not to open a new TCP connection on each occasion
- Registers are read through the Discrete input Registers area starting with the address 10000
- Each Console has to main sensors line with a maximum capacity of 128 sensors, totaling 256 for a single console
- Two different calls
 - Leak addresses 201 to 457 (can start from 200)
 - Sensor communication loss addresses 801 to 957 (can start from 800)



Marking

Europe

EMC

ETSI EN 301 489-1 V2.2.3 (2019-11)

ETSI EN 301 489-17 V3.2.4 (2020-09)

EN 55032:2015

EN 55035:2017

EN 61326-1:2013

Radio

EN IEC 62311:2020

Safety

IEC 61010-1:2010/AMD1:2016 ED3

USA

FCC 47 CFR Part 15 Subpart B, Class B (SDoC), ANSI C63.4-2014

