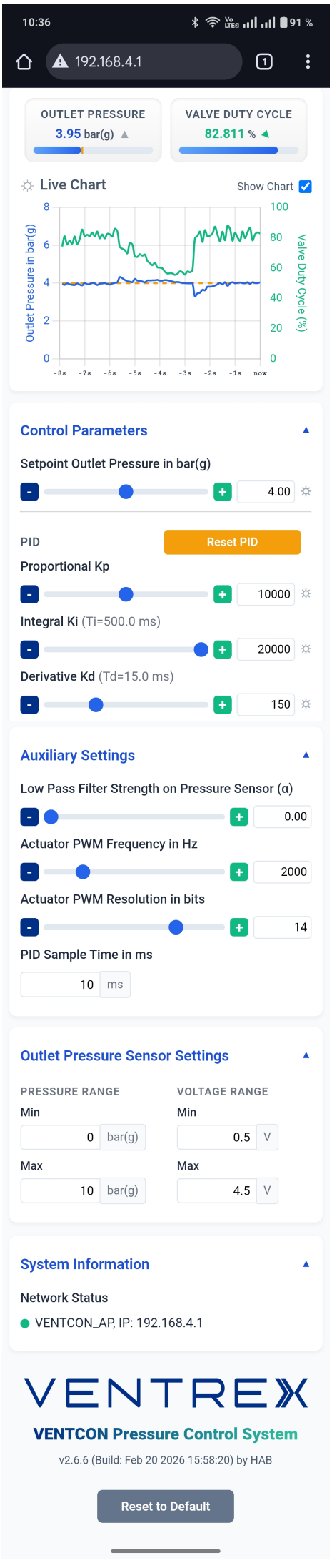


Browser Address Bar.

IP Address of the Web App. Alternatively, use http://ventcon.local
The PID control algorithm is working regardless of WiFi connection.

Real-Time Status Indicators.

OUTLET PRESSURE:
The regulated pressure as measured by the sensor. This is the Process Variable that the PID control algorithm is working to get close to the Setpoint pressure.

VALVE DUTY CYCLE:
Measure of electrical current and regulator orifice area. This represents the output signal sent from the PID control algorithm to the regulator valve.

Live Trend Chart.

The gear icon ( ) opens a window to set the chart limits and grid settings.
The 'Show Chart' checkbox disables the chart (use when WiFi is poor)

The blue Line tracks OUTLET PRESSURE over time.
The green Line tracks VALVE DUTY CYCLE over time.

An OUTLET PRESSURE randomly hovering just above 0 bar(g) indicates a not working or not connected sensor.

Control Parameters.

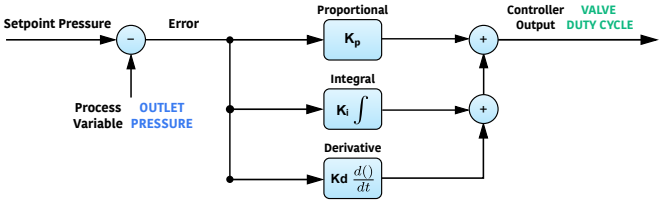
The essential PID control parameters are located here. Each parameter's value is adjusted by either Plus (+) or Minus (-) button, a slider or numerical input.
The gear icon ( ) opens a window to set the slider limits and fidelity.

Setpoint Outlet Pressure:

This is the target pressure for the PID algorithm.

Kp, Ki, Kd:

These are the weights put on the proportional, integral and derivative path:



Auxillary Settings.

Low Pass Filter Strength on Pressure Sensor:

If the sensor is noisy (i.e. OUTLET PRESSURE), a low pass filter can be configured here.
Valid value range: 0 to 1

Actuator PWM Frequency:

This is the frequency in which the VALVE DUTY CYCLE is oscillating.
Valid value range: 100 to 20000 Hz

Actuator PWM Resolution:

This defines the precision of VALVE DUTY CYCLE .
Valid value range: 8 to 16 bits (e.g., 14 bits provides 16384 discrete steps).

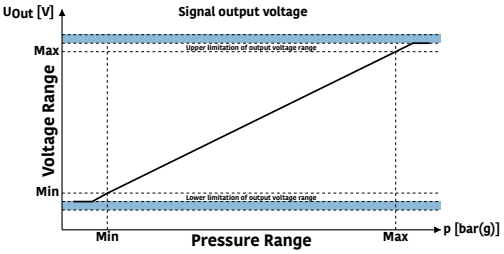
PID Sample Time:

Defines the time interval between successive calculation steps of the PID algorithm.

Outlet Pressure Sensor Settings.

Voltage Range and Pressure Range.

The upper and lower limits correspond to limits of the sensor.
This information is obtained from the sensor datasheet or via a calibration test.



System Information.

Network Status:

The Indicator will be green when connected, red when disconnected.

Reset to Default.

After confirmation, this button Resets all settable quantities on the Web App to their default values.