ALL Processing Done

1. ISSUE: flowrate readings not matching with total flow readings

SOLUTION: Calculated flow rate from total flow readings, which should be more accurate than instantaneous flow rate readings given by the sensor.

Formula: max (0{so as to not get negative readings}, (Current total flow – previous total flow)/((current date time – previous date time)\*24))

Unit = kilo Litres/h

1. ISSUE: will not get correct pressure values if voltages do not have a baseline of 0.6 Volts. Assuming there is some constant voltage loss due to circuit wirings.

Checked MEAN of pressure voltages

Expected baseline = 0.6 Volts

Added offset of (0.6 – MEAN) to pressure voltages to get a baseline of 0.6 Volts.

1. ISSUE: we want to show pressure readings instead of pressure voltages so that it is intuitive to understand.

Converted pressure voltage into pressure using calculations shown:

Expected Pressure-Current mapping: 0-16 Bar => 4-20 mA

Resistance used to obtain voltage = 150 Ω

Expected Pressure-Voltage mapping: 0-16 Bar => 0.6-3 V

Expected Voltage range = 0.6 - 3V

Mapping of pressure voltage to pressure: Pressure = max (0, (((Pressure Voltage\*1000)/150) – 4)) Bar