Using Dual Sensors with an Intelligent Pump Controller

Multi-Zone Control with the Intelligent Pump Controller

Some applications require the installation of two or more sensors to operate in a wide area of control. The Intelligent Pump Controller supports up to 4 unique zones using the two standard analog inputs and optional expansion inputs.

Some examples of multiple sensors include:
- Monitoring system pressure (Gauge or differential) from two different locations
- Monitoring Differential Pressure and flow between two different locations. (The sensor that measures the change in pressure or Differential Pressure across two locations).

Wiring:
Analog Input 1 Terminal # 53 (Can use 4-20MA only)
Analog Input 2 Terminal #54 (4-20MA OR 0-10VDC)
Terminal #13 -24VDC

Dipswitch Selection for A54:
Please power drive off before moving dipswitch.
- Please verify if sensor runs on 4-20MA or 0-10VDC.
- The dipswitch for AI 54 should be adjusted correctly.
- Switches are located behind the keypad and will be on the right side near the bottom.
- Remember that the A53 switch is fixed for 4-20MA and cannot be changed.
- If your device is 4-20MA you can use either A53 or A54 (will require dipswitch change)
- If your device is 0-10VDC you can only use A54 and can move to the right.
Programming Dual Sensors:

Please select HVAC from your Pump Application

Select feedback from your setup selection

Select two for Feedback Sources

Select Analog 53 for Input #1

Input the minimum and maximum values from your device

Select Analog 54 for your Input #2

Input the minimum and maximum values from your device
Select Stop on AZF (ALL ZONE FAILURE) if you would like the system to stop on a device failure.

Select Constant Speed if you would like the drive to run the motor at a specific speed in the event of a device failure.

Select the speed you would like the drive to run the motor at in the event of a device failure.

Select off if you prefer that the drive ignore a device failure.

Select Stop and Trip if you would like the drive to stop and also display an AZF alarm during a device failure.

Select Yes to continue your set point setup.

Input your Set point One value. This is the pressure for sensor 1.

Input your set point 2 value. This is the pressure for sensor 2.
Alternative Set points will utilize a switch between Digital input 33. Open and closing between them will select between your two set points. Press OK and verify you will be using a switch.

Input your set point 1 value

Input your set point 2 value

Select No for your Pump Protection Setup

Change your Setup selection to Exit

Press Ok to Exit the Genie.