

Using a DVRT[®] with a V-Link[®]-200

The DEMOD DC[®] is usually configured for 6 - 16 V dc and has a 0 - 5 V dc output. In this configuration, the output can be directly connected to the V-Link 200.

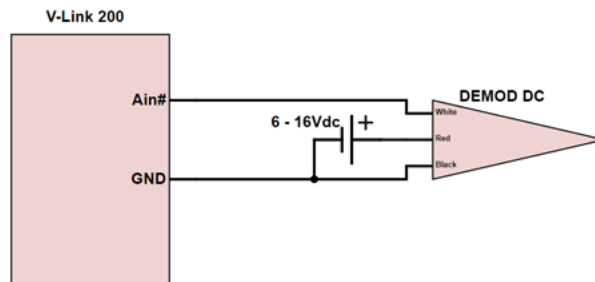
Because V-Link 200 has 4.096 V dc excitation for sensors, the DEMOD DC would have to be powered externally.

The DEMOD DC can be factory configured (option) to be powered by the V-Link 4.096 V dc and output a 0 - 4.096 V dc signal.

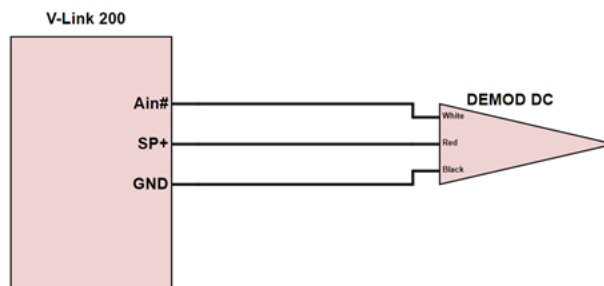
See the wiring and calibration procedures for both sensors below.

Wiring

Wiring for 6 - 16 V dc power supply with 0 - 5 V dc output.



Wiring for 4.096 V dc from V-Link 200 with 0 - 4.096 V dc output.



Calibration

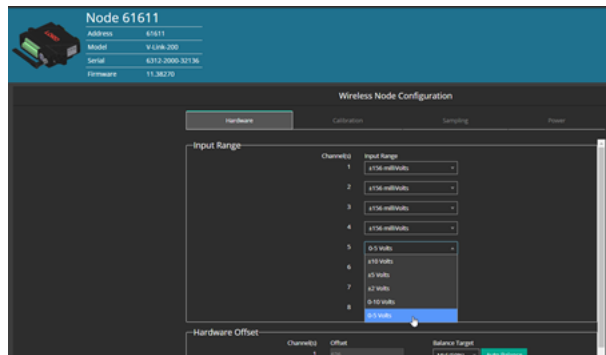
The calculation for the V-Link slope is the same for both versions of DEMOD DC

- From the DEMOD DC calibration sheet note the slope (mm/V)

Certificate of Calibration	
This document certifies that the equipment referenced below meets published specifications.	
Date of Calibration:	May 25, 2017
Sensor Model:	6132-0001
Sensor Serial Number:	63758
Signal Conditioner Model:	6130-0010
Signal Conditioner Serial Number:	62304
-3dB Bandwidth:	500.0
Supply Voltage (V):	6.18 VDC
Slope (mm/V):	22.16690
Offset(mm):	-54.8731
Calibrated by:	CEH
Calibration Temperature (deg. C):	22.0
Calibration Frequency:	Static (< 2Hz)
Warm up time:	>15 minutes
Note:	

- 22.1669 mm/V from the example above
- Multiple the DEMOD DC slope by $(5.12 \text{ V} \div 262144 \text{ bits})$
 - 5.12 V is the max input on the single ended channel when the 0 - 5 V range is selected
 - 262,144 is the number of bits the 18 A to D converter has
- $22.1669 \times (5.12 \text{ V} \div 262144) = 0.0004329 \text{ mm / bit}$

In SensorConnect, go to the Hardware tab and select the 0 - 5 Volts range for the channel the DEMOD DC is connected.

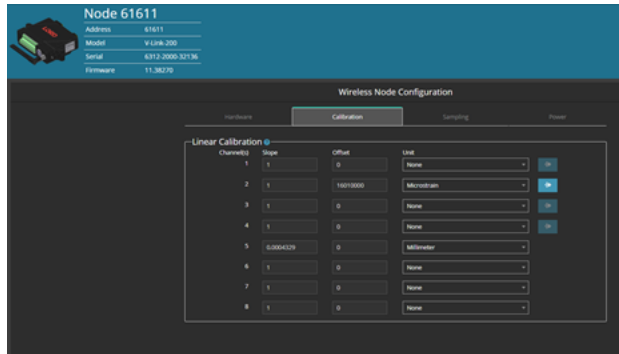


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From the Calibration tab, enter the Slope calculated above in the Slope field for the channel the DEMOD DC is connected to.



With an Offset of 0 for the channel you will see the full range of the DVRT, for the example above the 100 mm DVRT would show 0 to 100 mm. If the application where the DVRT is being installed requires a -50 to +50 range, a -50 for an offset will provide this.



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