

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.

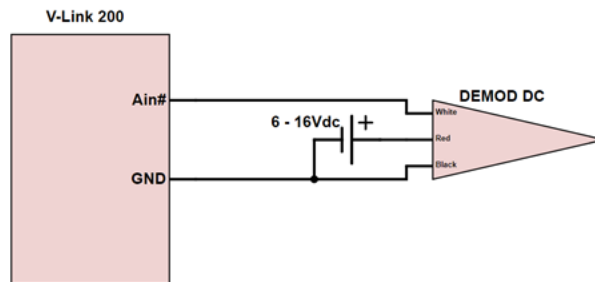
Because V-Link 200 has 4.096 V dc excitation for sensors, the DEMOD DC would have to be powered externally.

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.

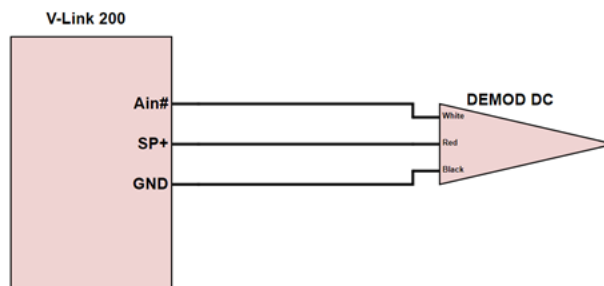
See the wiring and calibration procedures for both sensors below.

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.



LORD TECHNICAL NOTE

Calibration

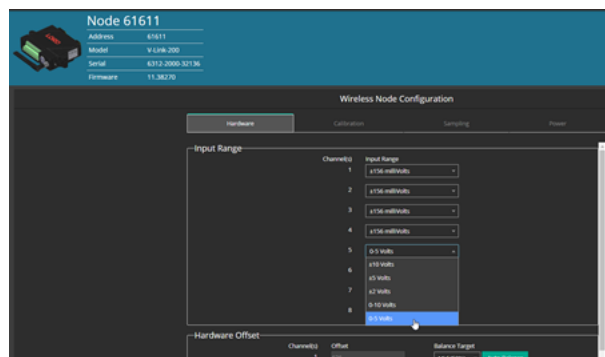
The calculation for the V-Link slope is the same for both versions of DEMOD DC

- 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: <u>May 25, 2017</u>	Channel (if applicable) CH0: <u> </u> CH1: <u> </u> CH2: <u> </u> CH3: <u> </u> CH4: <u> </u> CH5: <u> </u> CH6: <u> </u> CH7: <u> </u>
Sensor Model: <u>6132-0001</u>	
Sensor Serial Number: <u>63758</u>	
Signal Conditioner Model: <u>6130-0010</u>	
Signal Conditioner Serial Number: <u>62304</u>	
-3dB Bandwidth: <u>800 0</u>	
Supply Voltage (V): <u>8-18 VDC</u>	
Slope (mm/V): <u>22.16690</u>	
Offset(mm): <u>-54.6731</u>	
Calibrated by: <u>CEH</u>	
Calibration Temperature (deg. C): <u>22.0</u>	
Calibration Frequency: <u>Static (< 2Hz)</u>	
Warm up time: <u>> 15 minutes</u>	
Note: <u> </u>	

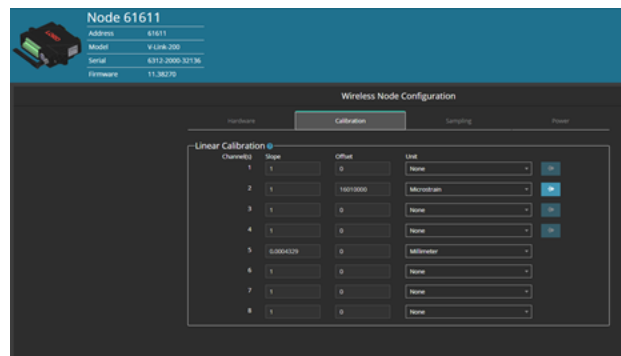
- 22.1669 mm/V from the example above
- Multiple the DEMOD DC slope by $(5.12 \text{ V} \div 262144 \text{ bits})$
 - 5.12 V is the max input on the single ended channel when the 0 - 5 V range is selected
 - 262,144 is the number of bits the 18 A to D converter has
- $22.1669 \times (5.12 \text{ V} \div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

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



LORD TECHNICAL NOTE

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.