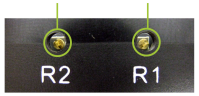
AI-1000

Analog Signal Conditioner for Load Cells

Amplifies the low level signal (mV/V) from a load cell into a 0.5 to 4.5 V DC signal and helps connect to PLC or DAQ

At Full Load Adjust Gain
Clockwise to Increase
Counter-clockwise to Decrease

At Zero Load Adjust Offset
Counter-clockwise to Increase
Clockwise to Decrease



Included

AI-1000 and Power Supply with US style plug

1 Connect your Load Cell

Connect wires from Load Cell to Terminal Block
See wiring diagram at the bottom of AI-1000
Fasten wires snuggly
Ensure Terminal Block is firmly inserted

2 Calibrate

AI-1000 with your Load Cell Before use
Once calibrated, ALWAYS keep & use load cells together

3 Start Using

Connect to a Voltmeter, DAQ, or PLC
Voltage should vary from 0.5 to 4.5 V DC
when applied load goes from 0 to full scale

How to Calibrate

1. Watch this Video first: youtu.be/MvkQAhnh3Ck
2. You MUST calibrate YOUR load cell with the AI-1000 before use. Once calibrated you MUST use the same signal conditioner with the same load cell to make sure you are getting the correct signal into your system
3. Connect the wires from the load cell into the terminal block provided. The wiring diagram is shown on the bottom of your AI-1000 and on the spec sheet. Make sure you properly fasten the wires into the terminal block and the terminal block into the AI-1000 snugly
4. You need to adjust the R1 potentiometer counter clockwise until the output voltage gets close to 0.5 V DC when the applied load on your load cell is zero
5. Apply a known full load and then adjust the potentiometer R2 clockwise until the voltage gets close to 4.5VDC. Then unload the load cell and again adjust R1 until the voltage again comes close to 0.5 VDC. Do this iteratively until the voltage varies from 0.5 to 4.5 VDC from 0 to full load

Please be gentle with the Potentiometers ("Pots") turns and don't overdo it, to avoid damaging the Potentiometers. If changing the Pots does not change the output voltage as expected then make sure to check your load cell independently of the AI-1000 and then try again

Help

loadstarsensors.com/assets/specsheets/ai1000.pdf

support@loadstarsensors.com

Watch

Setup & Calibrate: youtube.com/watch?v=9qYQ8bR2Kec&t=1s

Calibrate Sensor with AI-1000: youtu.be/MvkQAhnh3Ck

Access Detailed Information

Scan the QR Code

Or

Visit - loadstarsensors.com/documentation.html