

DI-400 Four Channel 16-bit Digital Sensor Interface

Overview

This is essentially a four channel version of the DI-100U. It enables a user to quickly connect up to four 4-wire load cells to this interface, digitally calibrate each and then obtain calibrated force/load/weight values from all four connected load cells. Other sensors with mV/V output can be connected as well.

Since each load cell is digitally calibrated and calculated weights/forces are summed digitally, by using a DI-400U, you can save time, money and a lot of headache of using a junction box and performing an analog summation from multiple load cells. This is the easiest way to build a scale with four independent measurements at the four corners of a frame/platform.



4 Channel, 16-Bit USB

Highlights

- * Powered by USB port; no external power needed.
- * Works with most 4-wire 0-3 mV/V load cells (wires with E+, E-, S+, S-).
- * Offers 16-bit resolution & provides accuracies to +/- 0.1% of full scale for most load cells.
- * Appears as a Virtual COM port on a Windows PC.
- * Works with LabVIEW, Matlab, VisualStudio, Java etc.
- * ASCII command set to allow users to get calibrated data into their own software applications.
- * Works with LoadVUE LV-4000, SensorVUE or ControlVUE software to display, log or plot this data.

Specifications

Model	DI-400U
Accuracy Class	± 0.1%
Input Range	3 mV/V (0-15 mV Span)
ADC Resolution	16 bit
Channels	4
Sampling Rate	40 Hz (DI-400U) 275 Hz (D-400UHS)
Output Protocol (Interface to PC)	USB (Virtual COM) using Serial to USB Dongle (S2U)
Battery Option	No
Wireless Option	No
Load Cell Connector	Screw Terminal Block
Load Cell Compatibility	4 Wire
Output Connector	USB 5-pin mini-B female
Output Format	ASCII Text (millipounds)
Dimensions	9.0" x 5.25" x 1.5"
Compatible Software	LV-4000, SensorVUE, ControlVUE

Ordering Information

Available Configurations				
Part No.	ADC (Bits)	Channels	Data Output Rate (Hz)	Output
DI-400U	16	4	40	USB
DI-400UHS	16	4	275	USB

Applicable Software

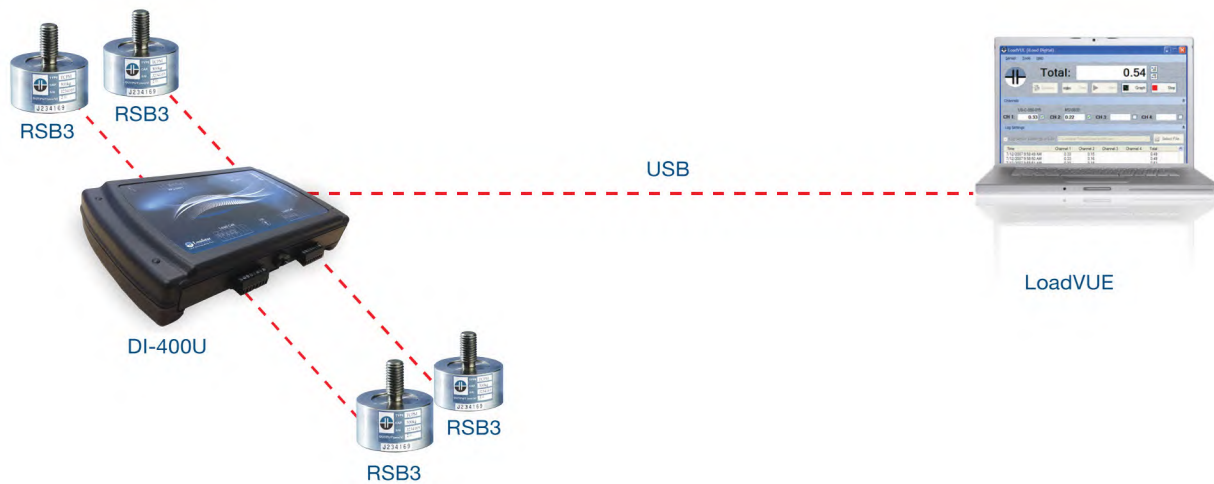
SensorVUE	
ControlVUE	

Software Requirements

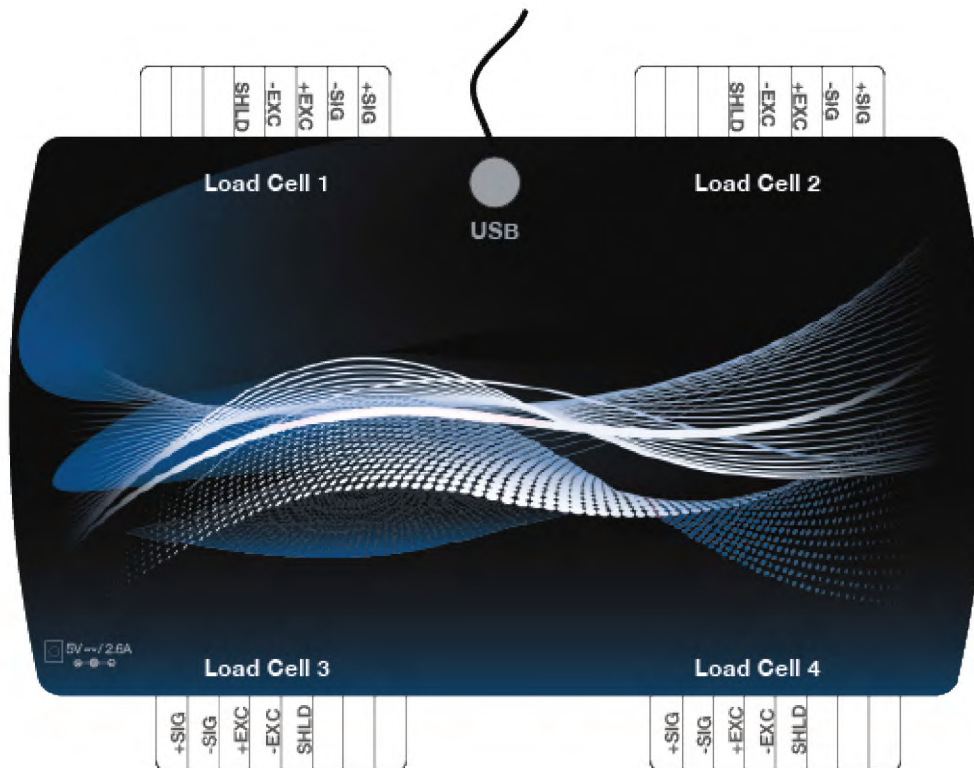
Operating System	Microsoft Windows XP/Vista/7/8/8.1
Hard Drive	500 MB disk space
RAM	2 GB memory
Hardware	Windows compatible PC, Tablet



Four Load Cell Configuration



Wiring Diagram: DI-400



Use SensorVUE to read, display and log and plot data from all four connected load cells and ControlVUE to connect external devices based on sensor values. SensorVUE and ControlVUE are compatible with Microsoft Windows 1