

# 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

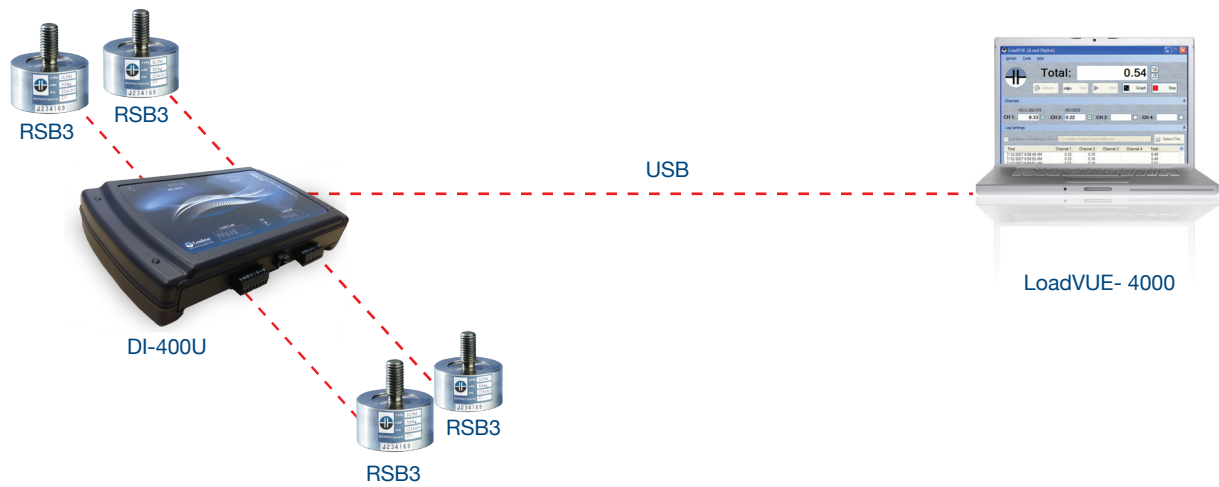
LV-4000	see page 128
LV-4000-CG	see page 129
SensorVUE	see page 128
ControlVUE	see page 129

## 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

