

High Speed, Intelligent Load Cell Interface Card with USB and RS232/485 Interfaces

LCIC-WIM-BEN



LCIC-WIM-BEN load cell interface card.

- ✓ High Speed;
Up to 52,000 Samples
per Second
- ✓ 24-Bit A/D with ± 8 Million
Counts for Tension and
Compression Applications
- ✓ Powerful 32-Bit /135 MIPS
DSP for High Speed
On-Board Processing—
OEM Applications Can Be
Embedded On The Board
- ✓ 4 Opto-Isolated Outputs
Configurable as Setpoints,
Latching Alarms or User
Outputs
- ✓ 4 Opto-Isolated Inputs;
Input #1 Has Counter Option
- ✓ Analog Output—
0 to 2.5V, 16-Bit
- ✓ 8-Digit LED Display
- ✓ On Board Temperature Sensor
- ✓ USB 2.0 Interface—
Full Speed Compatible
- ✓ RS-232/RS485 Communications
Ideal for PLC Based
Applications
- ✓ Multiple Boards May
Be Connected Via
USB or RS485

The LCIC-WIM is a high speed, intelligent load cell interface card with USB/RS-232/RS-485 interfaces. Besides its basic mode, the board includes an integral Fill Mode supplying an independent filling control.

The board is intelligent and powerful enough for OEM customers—it is ready to accept piggy-back modules and/or embedded applications for OEM special requirements.

The LCIC-WIM-BEN is useful in applications such as analyzing noise and vibration in a belt conveyor or any dynamic weighing system, for example the time it takes for stabilization after a load was applied.

Other potential applications include checking scale behavior for slow/high speed WIM (weighing in motion) applications, measuring maximum (peak) and minimum forces on a scale/testing machine (helps to select the suitable load cell for optimum performance), and running tests and getting immediate final weight results on WIM and check weighers.

LCIC-WIM Software

Three software utilities are supplied with the board: LCIC-WIM-CALIBRATION, LCIC-WIM-SETTINGS and LCIC-WIM-MONITOR.

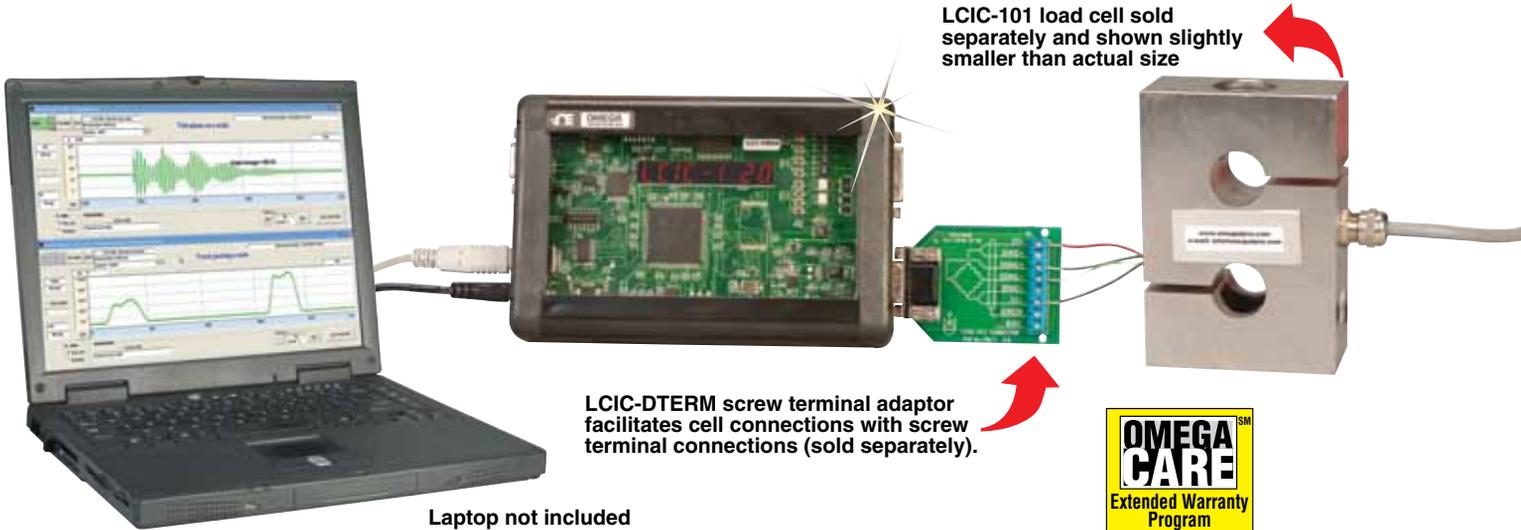
These software utilities enable easy selection and setup of the required board. The calibration utility (LCIC-WIM-CALIBRATION) enables you to calibrate the LCIC-WIM-BEN board by adjusting it to your own system. The utility is straight forward and is in the form of a Windows® wizard.

The LCIC-WIM-SETTINGS utility gives control to card's filters, analog output, fill mode parameters and more. The LCIC-WIM-MONITOR utility is a vital tool for analyzing dynamic load/force systems.

It takes full advantage of the board's speed and samples the load cell signal at maximum speed (15,000 samples per second), sending the data to the PC via the USB port and displaying it as a curve—load cell signal/versus time.

You can then zoom in/out on the data, view max (peak) and min readings, save the data in standard ASCII file format for later use and even perform some calculations like averaging on a required part of the curve.

DATA ACQUISITION SYSTEMS



LCIC-101 load cell sold separately and shown slightly smaller than actual size

LCIC-DTERM screw terminal adaptor facilitates cell connections with screw terminal connections (sold separately).



Laptop not included

Specifications

LOAD CELL INPUT

Bridge Input: 1 input, 4-wire or 6-wire

Excitation: 5 Vdc excitation for up to 10 load cells (350 Ω) in parallel

Compatibility: Compatible with 1, 2 & 3 mV/V load cells

A/D

Speed: Low noise wide bandwidth amplifier, very high speed, up to 52,000 samples per second

Resolution: 24-bit A/D with ±8 million counts for tension and compression applications

COMMUNICATIONS

Standard Interfaces: USB 2.0 full speed compatible; combined RS-232/RS-485

INPUTS

Digital Inputs: 4 opto-isolated inputs with 10 to 30 Vdc range, each with status LED; input #1 configurable as high speed counter; input #2 configurable as sample trigger

OUTPUTS

Relays: 4 opto-isolated solid state relays rated at 50 V, 300 mA; configurable as setpoints, latching alarms or user outputs, each with status LED

Analog Output: 0 to 2.5 Vdc with 16-bit resolution

GENERAL

Power: From included 110/220 Vac adaptor

DSP: Powerful 32-bit/135 MIPS DSP for high speed onboard processing

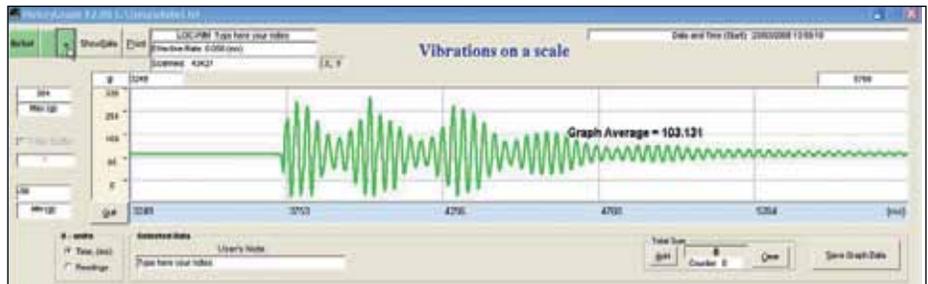
Display: 8-digit LED display

RS-232/485 Port: DB9F connector

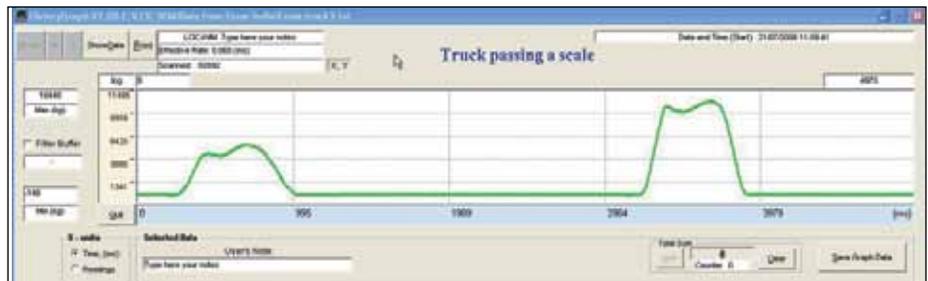
I/O Port: DB15M connector (digital inputs, relay outputs, analog output)

OMEGACARESM extended warranty program is available for models shown on this page. Ask your sales representative for full details when placing an order. OMEGACARESM covers parts, labor and equivalent loaners.

Temperature Sensor: On-board
Dimensions: Standard (Eurocard); 160 L x 100 mm W (6.3 x 3.94")
Weight: 251 g (9 oz)
Case: ABS



Windows software showing vibration on a scale.



Windows software showing weight of truck passing a scale.

To Order

Model No.	Description
LCIC-WIM-BEN	High speed load cell interface card with enclosure
LCIC-DTERM	Screw terminal adaptor
LCIC-PWR-ADAPTOR	Spare 110/220 Vac adaptor

Comes complete with operator's manual, Windows and utility software on CD-ROM, 110/220 Vac adaptor, and USB cable.

Ordering Example: LCIC-WIM-BEN, high speed load cell interface card with enclosure and OCW-1 OMEGACARESM year extended warranty (adds 1 year to standard 1-year warranty).