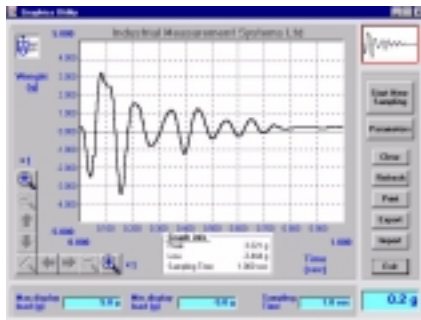


Load-Cell Interface Card LCIC®-1106a

For PC/AT or Compatibles

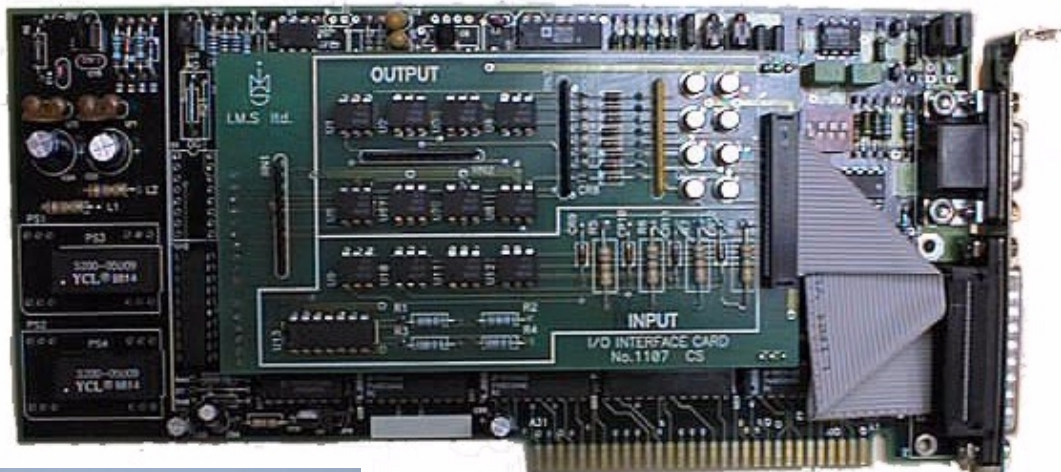
Any application related to weighing or measuring forces is now available in your PC...



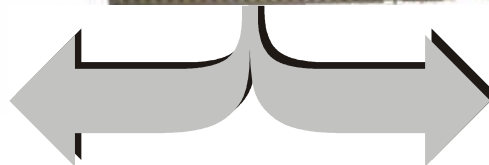
*Force Measurement /
Testing Applications*



Filling Machine



Weighing in Motion



Checkweighers



Stand-alone microcomputer-based interface card requires no other interfacing accessories. Simply connect the cable from each scale directly to the card and you are ready.

- Compatible with all load cells and other strain gage-based transducers.
- Replaces all conventional weight indicators. Card resides directly on computer bus, thus eliminating RS232 and other communication ports.
- Suitable for all dynamic, force measuring and real-time applications.
- Ultra-fast A/D conversions – 500 per second after filtering
- Optional I/O card – eight outputs and four inputs all opto-isolated
- Up to 16 cards may be installed in one PC



I.M.S INDUSTRIAL
MEASUREMENT
SYSTEMS LTD.

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- User-friendly easy calibration from the PC keyboard.
- Very useful software package of weighing indicator, counting scale and checkweigher as well as examples on how to access the board are all included.

Load-Cell Interface Card LCIC®-1106a

The LCIC-1106a is a load cell interface for the IBM PC/AT and compatible computers. It will accept any type of strain gage-based load cell. Each card powers directly up to six load cells (350 Ω each).

In fact, it is a completely stand-alone sophisticated weighing indicator with 16 bit internal resolution and very fast A/D conversion rate.

Direct communication with the PC bus and high frequency sampling enable the LCIC-1106a to handle real-time applications impossible with external indicators via serial communication.

Typical Applications

- Gravimetric filling systems
- Batching controllers
- Weigh belt and loss-in-weight controllers
- High speed checkweighers
- Multi-scale processing – by using more than one LCIC
- Weighing in motion (such as trucks on the roads)
- Mutil-head filling machines
- Peak detector and analyzing forces in press machines

Main Features

- User-friendly calibration procedure with automatic zero and gain adjustment.
- Calibration parameters reside in the LCIC memory and are retained even if the card is moved from one PC to another.
- Calibration library. Different calibrations for various scales may be stored in a library for later use on the same card.
- No auxiliary power supply is required. The LCIC powers and senses 6-wire load cells.
- Provides data in weighing units (kg, gr, lb, ton) in ASCII or floating point – usable by almost any programming language.
- Opto-isolated I/O lines enable logic control through user's application program.

Software Included

- Mapping memory diagnostics – for easy address selection to install the card.
- User-friendly calibration software.
- I/O check and test procedure built into the calibration software.
- Software to utilize the PC as a weighing indicator, counting scale, checkweigher and filling machine.
- Examples in source code on how to access the card.
- Drivers for Win 95/98, Win NT and examples in VB and C++.

Hardware Specifications

- Excitation voltage: 8.2 VDC
- Internal A/D resolution: 16 bit
- Internal A/D conversion time: 4000 per second
- PCB type: multilayer (six layer)
- Power consumption (without load cells): 350 mA max @ +5V
- Updating the PC bus speed: 500 per second
- Load Cell range: from 0.2 mV/V up to 3 mV/V load cells
- Number of load-cells: up to six in parallel (350 Ω each)
- Load cell connection: 6 wires (sense) - one 9 pin D-type connector
- Method of communication with the PC bus: Dual port RAM (memory-mapped) with 16 different addresses (up to 16 cards in one PC)
- Length of cable between the LCIC and the load cells: up to 150 meters
- Option for RS232 output from the card to remote display
- Dimensions:
 - Board: $\frac{3}{4}$ PC/AT
- Weight:
 - LCIC-1106a: 200 gr
 - I/O Module: 80 gr

Optional I/O Module: (LCIC "Piggy-back")

- Opto-isolated I/O lines enable logic control through user's application program
- Four inputs – sink or source connection., Maximum transistor current at 30 VDC 12 mA
- Eight outputs – current source connection 5-30 VCD maximum 80 mA



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