

# LCIC-1106A Load-Cells Interface Card

## For PC/AT or Compatibles



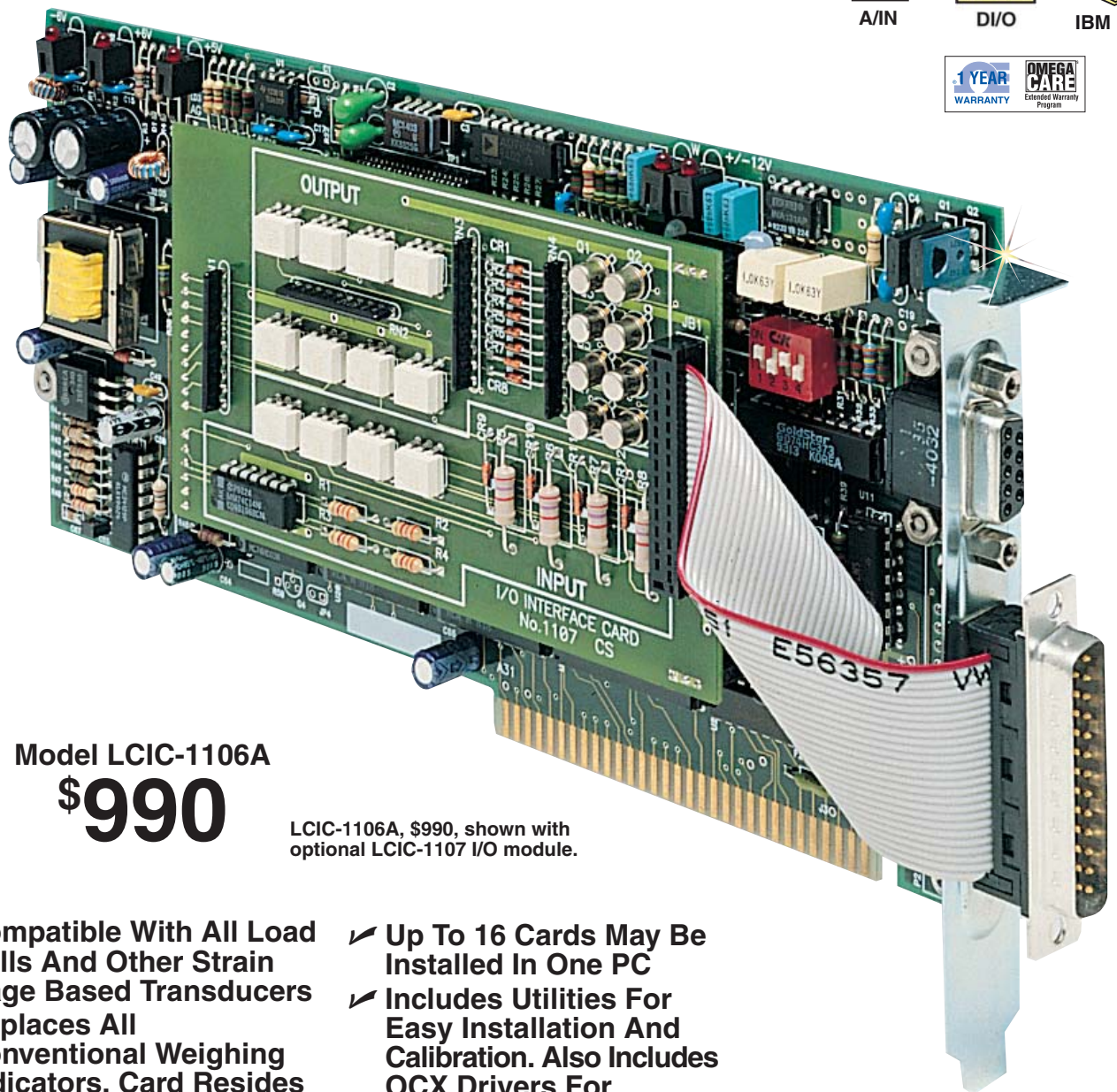
A/I/N



D/I/O



IBM PC



Model LCIC-1106A

**\$990**

LCIC-1106A, \$990, shown with optional LCIC-1107 I/O module.

- ✓ Compatible With All Load Cells And Other Strain Gage Based Transducers
- ✓ Replaces All Conventional Weighing Indicators. Card Resides Directly On Computer Bus, Thus Eliminating Slower RS-232 And Other Communication Ports
- ✓ Suitable For All Dynamic, Force Measuring And Real Time Applications
- ✓ Ultra Fast A/D Conversions (400 Per Second After Filtering)
- ✓ Optional I/O Card (8 Outputs And 4 Inputs All Opto-isolated)
- ✓ Up To 16 Cards May Be Installed In One PC
- ✓ Includes Utilities For Easy Installation And Calibration. Also Includes OCX Drivers For Windows 95/98 With Examples For Visual Basic And C++

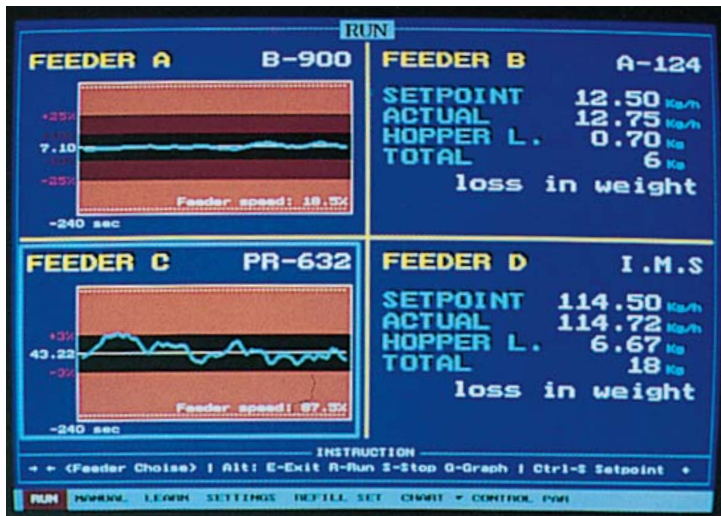
The LCIC 1106A is a load-cell interface card for the IBM PC/AT and compatible computers. It will accept any type of strain gage based load cell. Each card can read one load measurement. The card will directly power up to six 350Ω load cells wired in parallel. In fact, it is a completely stand-alone

sophisticated weighing indicator with 16 bit internal resolution and very fast A/D conversion rate.

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

The stand-alone microcomputer based interface card, requires no other interfacing accessories, simply connect the load cell directly to the card and you are ready for calibration.

## Load-Cells Interface Card for PC/AT or Compatibles



Optional LC-ANALYZE software shown.

### TYPICAL APPLICATIONS:

- Gravimetric Filling Systems
- Batching Controllers
- Loss-In-Weight and continuous weighing controllers
- Hi speed check weighers
- Multi scale processing—by using more than one LCIC
- Weighing in motion (like trucks on the roads)
- Multi head filling machines
- Measuring and analyzing forces in press machines

### MAIN FEATURES:

- User friendly calibration procedure with automatic zero and gain adjustment.
- Calibration parameters reside in the LCIC's memory, retained even if the card is moved from one PC to another.
- Calibration library. Up to four calibrations may be stored simultaneously on the board, and an unlimited number of calibrations may be stored on disk for later use.
- No auxiliary power supply 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 PC as a weighing indicator, counting scale and check-weigher.
- Examples show how to communicate with the board under DOS. Drivers included for Windows 95/98.

### HARDWARE SPECIFICATIONS:

Excitation voltage: 8.2 Vdc

Internal A/D resolution: 16-bit

Internal A/D conversion time: 4000 per second

Power Consumption (without load cells):

350 mA max. @ +5V

Updating the PC bus speed: 400 per second

Sensitivity range: From 0.6mV/V up to 35mV/V load cells

Number of load-cells: Up to 6 in parallel

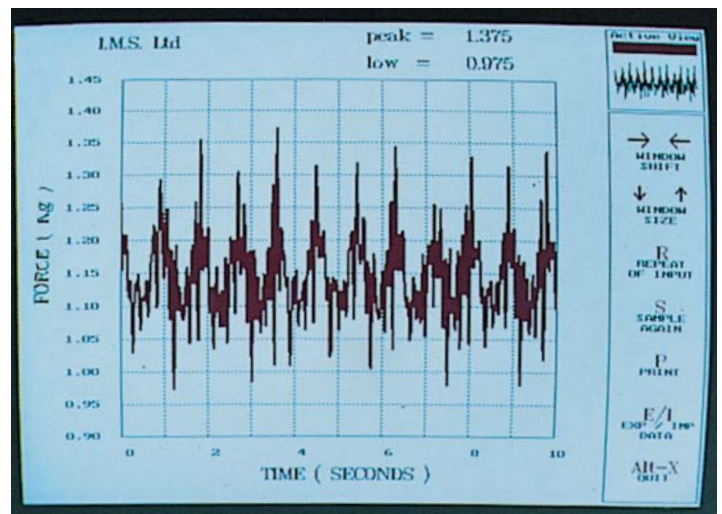
350 ohm each)

Load cell connection: 6 wires (sense—one 9 pin D type female 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



### OPTIONAL I/O MODULE:

("PIGGYBACK" TO THE LCIC)

- Opto-isolated I/O lines enables logic control through user's application program
- 4 inputs—sink or source connection. Max. transistor current at 30 Vdc 12mA
- 8 outputs—current sink connection 5-30 Vdc max, 80 mA
- I/O connector: D type 25 pin male

Dimensions: ¾ PC/AT board

Weight: LCIC-1106A: 200 g (7 oz.)

I/O module: 80 g (2.8 oz.)

### To Order (Specify Model Number)

Model No.	Price	Description
LCIC-1106A	\$990	Load cell interface board
LCIC-1107	235	Optional I/O module for LCIC-1106A
LCIC-TERM	85	Screw terminal panel for LCIC-1106A (includes 1.0 M cable)
LCIC-PLUG	85	Calibration plug. Allows LCIC-1106A to be calibrated without weights
LC-ANALYZE	1280	Graphic software for analyzing load cell behavior

Ordering Example: LCIC-1106A load cell interface board with LCIC-TERM screw terminal panel and cable, \$990 + 85 = \$1075.



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