Load Cell Tester Model LCT-01

A portable device that evaluates the conditions of all types of strain-gage load cells in seconds



The LCT-01 is a stand-alone portable hand-held device that was especially designed to help technical people immediately analyze the condition of strain-gage based load-cells.

The LCT fits all common types of load-cells available in the market today: four wires, 6 wires (with sense) and all rated gain outputs.

The LCT provides the user with the essential data needed about the conditions of the tested load-cell, such as physical distortion (possibly caused by overload, shock load or metal fatigue), and electrical conditions (bridge resistance, shielding and resistance to ground).

The LCT allows the user to test the load-cell whether it is installed or removed. The unit is fully computerized and battery operated. A 16 x 2 alphanumeric LCD display guides the operator through all test stages and clearly displays the results. It is also equipped with a buzzer and LED which will alert the user as to any suspicious result.

The three operation keys (plus an on/off switch) and concise messages on the display guide the user in a step-by-step fashion to it takes only a few minutes to learn how to use the LCT-01.

The LCT will test the following types of strain-gage load-cells:

- Four-wire and six-wire (determined by the user).
- Input and output bridge resistance (up to $8 \text{ k}\Omega$).
- Rated load-cell output: 1-5 mV/V (determined by the user in 0.1 mV/V steps).

Main Features

- Input impedance (1Ω resolution).
- Output impedance (1Ω resolution).
- Sense to output impedance (with six wire load-cell).
- Shielding to input/output impedance (up to $10 \text{ m}\Omega$).
- Ground to input/output impedance (up to $10 \text{ m}\Omega$).
- Load-cell output in percentage from full scale.

Hardware Specifications

- Excitation voltage: 2.5 vDC.
- Internal resolution: 12 bit.
- Accommodate Load-cell type: Four or six wires up to $8 \text{ k}\Omega$.
- Total accuracy: 2%.
- Load-Cell gain: 1 5 mV/V (default = 2 mV/V).

General Information

- Power source: Four standard AA batteries (approximately 500 hours of alkaline).
- Connectors: Eight pin screw type connector.
- Total connecting points: Eight (two input, two output, two sense, one shielding, one ground).
- Size: 100 mm x 180 mm x 44 mm.
- Weight: approximately 250 grams.

