

# CALOG - LC II

Hand-Held Loadcell Display/Tester/Calibrator



The *CALOG - LC II* is a portable, multi-function, precision instrument for strain gauge loadcell system testing and calibration. This model now includes the powerful ARM processor, a display function (ideal for portable scales or field readings), an SD card for datalogging, a USB port for connection to a computer for certificates or spreadsheets and longer lasting Lithium-Ion battery pack. Supplied complete with carrying case, charger and leads.

**DISPLAY:** mass, force, strain or torque from loadcells. Set mV/V, range, decimal points and units. Zero and span trim available. Selections for tare, peak hold and auto zero maintenance. Can be used for one 350 Ohm or three 1000 Ohm loadcells.

**TEST LOADCELL:** connect the loadcell leads to spring terminals and select test to get a readout of 4 or 6-wire, zero balance, input and output resistance and bridge balance. This is an ideal, time saving way to field test individual loadcells in position.

**INSULATION TEST:** connect leads to screen, housing and gauge to get a 50V insulation test between each in megohms. This test will show up water ingress that can cause loadcell measurement errors.

**MEASURE:** high accuracy measurement of millivolts with a secondary display of excitation voltage and milliamps for loadcell systems. Use this function to compare the actual loadcell readings with amplifier outputs or display readings for fault finding.

**SOURCE:** high accuracy millivolt injection with display of excitation voltage and mA output for workshop or field calibration of amplifiers and indicators.

**SIMULATE:** for sourcing milliamps into remote displays or SCADA systems. The *CALOG - LC II* display can be in mA or mass equivalent.

**SETTINGS:** allows you to set up the unit for power savings, contrast, language options and technical access.

**HELP:** gives you connection diagrams for each application, like having a built-in manual.



# CALOG Calibrators

The *CALOG* range of process instrumentation calibrators are designed for servicing, repairs in the workshop and the plant environment. They are tough, sophisticated precision instruments that are portable, compact and user-friendly.

Robust enough to withstand the rigors of most industrial environments, they are powered by long-life lithium ion batteries and incorporate a clear, back-lit LCD graphic display.

For quick source value set-up, the *CALOG* uses the “key-per-digit” numeric setting feature that enables the user to scroll each digit up or down.

## Features

- Small, rugged, handheld with a protective rubber cover.
- Graphic display of measured value and battery status
- Datalogging with SD Card and downloaded to a PC via on board USB port
- Programmable auto-off and selectable date and time
- Lithium Ion Battery pack, charger, carry case, and test leads supplied as standard
- 1 year guarantee against faulty material or workmanship (Batteries not included)

## Measuring

<b>ANALOGUE INPUT RANGES</b>	<b>RANGE</b>	<b>IMPEDANCE</b>	<b>ERROR LIMITS</b>	<b>RESOLUTION</b>
LC Display	-5 to 35 mV	min 300 $\Omega$	0.005% FS	5 Digit
Bridge balance	-5 to 10 mV/V	>1 M $\Omega$	0.02 mV/V	0.001 mV/V
Resistance	0 to 2000 $\Omega$		0.03% FS	0.1 $\Omega$
Millivolt	-5 to 35 mV	>1 M $\Omega$	0.005% FS	0.001 mV
Voltage	0 to 20 V	>110 k $\Omega$	0.005% FS	0.001 V
Current (Isolated, max 100V)	0 to 24 mA	$\pm$ 17 $\Omega$	0.01% FS	0.001 mA
Insulation (50V)	0 to 1000 M $\Omega$		5% FS	1 M $\Omega$

## Sourcing

<b>RANGES</b>	<b>RANGE</b>	<b>IMPEDANCE</b>	<b>ERROR LIMITS</b>	<b>RESOLUTION</b>
Millivolts	-5 to 35 mV	min 500 $\Omega$	0.005% FS	0.001 mV
Milliamps	0 to 24 mA	max 600 $\Omega$	0.01% FS	0.001 mA

## Environmental

- Operating temperature range 0 to +30°C
- Storage temperature range -20 to +55°C
- Humidity < 85% non-condensing

## Mechanical Specifications

- Dimensions (with the boot on) 86 x 155 x 43mm, IP54 rating (dust and splash proof)
- Dimensions (without the boot) 77 x 145 x 34mm, IP54 rating (dust and splash proof)
- Protection UL 94 V-0 flame retardant ABS plastic with rubber boot
- Weight 340g

## General Specifications

Display	128 x 64 graphics display with back-lit LCD
Keypad	16 Key embossed buttons
Battery	Lithium Ion with temperature sensing
Battery run life	Approx. 8 Hours, loop power off Approx 4 Hours, loop power on Approx 4 Hours, in display mode Continuous with charger in

## Error messages

- Over range ^^^^ with audible warning
- Under range vvvv with audible warning
- mA loop error “loop error” with audible warning
- mA loop ohms too high “check loop  $\Omega$ ” with audible warning