



# Loop Calibrator

## LCA-860

- Designed for on-field use, it offers all advantages of a documenting calibrator.
- Measures and generates standard linear signals for current and voltage loops (mA and Volt).
- Simultaneous input and output operation.
- Internal regulated 24VDC power supply for 2-wire transmitters.
- Special function for transmitter calibration converts any input signal into any output signal.
- Square root function for mA input and output.
- Generates, simulates and reads mA signals.
- Automatic power off configuration to save battery.
- Small, battery-operated, portable (rechargeable battery, charger and carrying case included).
- Interfaces with Windows-based Calibration Software SCA-850 to provide a true Computer-Aided Calibration System.
- Real-time data acquisition capability when connected to a computer.

LCA-860 loop calibrator allows the measurement and generation of signals used in current (4-20mA) and voltage (1-5V, 0-10V) loops. Distinguished from regular loop calibrators due to its high-accuracy, possibility of simultaneous measurement and generation of isolated signals, on-line communication with computer, working as a data acquisition point, and full computer-aid for instrument calibration and adjustment tasks. Incorporates the most modern concepts of calibration and adjustment via computer, where data are shared between instrument and computer, improving efficiency in handling information through report and certificate issues, automatic work management, data organization and storage for an overall coverage of quality procedure requirements, specially those related to ISO-9000. When connected to a computer it can be used for real-time data acquisition.

### Specifications - Input

	Input Ranges	Resolution	Accuracy	Remarks
Volt	-10 to 11V	0.0001 V	± 0.02% FS	$R_{input} > 1M \Omega$
	11 to 45V	0.0001 V	± 0.02% FS	
mA	-5 to 24.5mA	0.0001 mA	± 0.02% FS	$R_{input} < 160 \Omega$

### Specifications - Output

	Output Ranges	Resolution	Accuracy	Remarks
Volt	-1 to 11V	0.0001 V	± 0.02% FS	$R_{output} < 0.3 \Omega$
mA	0 to 22mA	0.0001 mA	± 0.02% FS	$R_{max} = 700 \Omega$
	2-wire transmitter (XTR) 4 to 22mA	0.0001 mA	± 0.02% FS	$V_{max} = 60 V$

Accuracy values are valid within a year at 25°C ambient temperature.

Thermal stability is 0.001% / °C.

Weight: 1.0kg approx.

Warranty: 1 year.

### Calibration Software SCA-850

SCA-850 has been made to automatize and manage instrument calibrations. Together with LCA-860 documenting calibrator, it manages all information obtained, making statistical analysis and calibration reports.

SCA-850 runs in Windows™ and it is distinguished for being easily operated.

It can be divided into some basic modules, offering practical solutions for the management and execution of instrument calibrations.

- Allows the registration of the instruments, factory sectors, engineering units, signals and calibration frequency.
- Allows efficient organization of calibrations through work-order concepts.
- SCA-850 software uses Serial Communication to send and receive calibration parameters of LCA-860 calibrator.
- Prints calibration reports (and certificates) as well as graphics of errors found in the calibrations.

### On-line Communication with Computer

It operates as a true real-time data acquisition point when connected to a computer via RS-232 / RS-485 serial communication.