

Load Cell Calibrator

FEATURES

- Ten calibration registers with 10 point linearization curves
- BLH Nobel Quick Cal, 10 point deadload, or 10 point data sheet calibration available for each register
- An additional register reads live load cell mV/V
- Display "Hold" function
- Optional 16 bit analog output configurable for each register
- Peak and valley capability for each register

APPLICATIONS

- Force calibration systems
- Dynamometers
- Test standards

DESCRIPTION

The LCc-II load cell calibration indicator uses microprocessor technology to store ten individual, ten point linearized, load cell calibration curves. This capability allows this device to be used as a calibration force measurement indicator with up to ten different load cells. In addition, the LCc is pre-configured at the factory to read actual load cell mV/V outputs for use as a measurement standard with virtually any load cell or other Wheatstone bridge based transducer. For portability, a ruggedized enclosure with transducer selection switch and carry handle is provided. If documentation is required, units have a serial printer communication interface.



Hot key displays provide instant access to cell mV/V output, peak, valley, zero, and tare values. To check calibration, three standard values are switch selectable along with a fourth provision for a user supplied resistor. Rear panel tension or compression selection reverses polarity if needed. Signal communication is available in 16 bit analog output and RS-422/485 digital formats. The RS-422 signal can be used for printouts or a full, bi-directional PC interface.

When combined with master (NIST calibrated) load cells, the LCc-II becomes a highly accurate system for checking and calibrating other force and weight measurement equipment.

CONFIGURATION



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SPECIFICATIONS		PARAMETER	VALUE
PERFORMANCE		Resolution	1,048,576 total counts
		Displayed Resolution	700,000 counts
		Conversion Speed	50 ms
		Displayed Sensitivity	0.05 μ V per count
		Noise	0.4 μ V per count (min. tilt. setting)
		Full Scale Range	3.5 mV/V
		Dead Load Range	100% full scale
		Input Impedance	10 m Ω min.
		Excitation Voltage	10 VDC @ 250 mA
		Linearity	\pm 0.0015% full scale
		Software Filter	multi-variable up to 10,000 ms
		Step Response	one conversion
		Temp Coefficient Zero	\pm 2 ppm/ $^{\circ}$ C
		Temp Coefficient Span	\pm 7 ppm/ $^{\circ}$ C
ENVIRONMENT		Operating Temperature	-10 to 55 $^{\circ}$ C (15 to 131 $^{\circ}$ F)
		Storage Temperature	-20 to 85 $^{\circ}$ C (-5 to 185 $^{\circ}$ F)
		Humidity	5 to 90% RH non-condensing
		Voltage	115/240 VAC +15% @ 50/60 Hz
		Power	15 W max.
ENCLOSURE		Dimensions (std)	8.5 \times 12.3 \times 10.6 in H \times W \times D
PARAMETER	VALUE	PARAMETER	VALUE
DISPLAY		Type	high intensity amber LED display
		Active Digits	7 digit alpha numeric 0.59 in high for weight 8 digit alpha numeric 0.39 in high for status
REMOTE HOLD INPUT (OPTICALLY ISOLATED) (CONTACT CLOSURE OR DC LOGIC COMPATIBLE)		Closed	hold
		Open	normal operation
COMMUNICATIONS (STANDARD)		Serial RS-422/485	full or half duplex ASCII, printer, Provox, Modbus, or BLH network protocols; odd, even or no parity-selectable
		Baud Rates	300, 1200, 2400, 4800, 9600 or 19200
ANALOG OUTPUT (OPTIONAL)		Conversion	16 bit D-A
		Current Output	0-24 mA - 500 Ω max.