

## 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



Load Cell Calibrator

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



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