# LOW PROFILE COMPRESSION LOAD CELLS WITH HIGH SPEED USB OUTPUT

STANDARD AND METRIC MODELS

**Compression** 0 to 50 to 0 to 400,000 lbf 0 to 25 to 0 to 5000 kgf



LC411-5K-USBH. shown smaller than actual size.

LC411/LCM411-USBH Series

- ✓ 1000 Readings per Second
- Dual Bridge Models **Available**
- ✓ USB 2.0 and Below Compatible
- ✓ Standard USB Connector **Termination**
- ✓ Powered Completely by the USB Port
- All Stainless Steel for **Harsh Industrial Environments**
- ✓ 5-Point NIST Traceable Calibration Provided
- ✓ Built-In 59K Shunt Cal Resistor

The LC411-USBH Series high speed USB load cells connect directly to your computer. Free PC software makes data logging and charting your readings a simple task. Also included are .NET APIs and a command set for command line access. No additional power supply is needed. The load cell is powered directly from your computer's USB port.

**SPECIFICATIONS** 

**Excitation:** From USB port Output: Digital (USB 2.0) 5-Point Calibration: Included 0%, 50%, 100%, 50%, 0%

Note: Models > 300.000 lbf are calibrated at 300,000 lbf. Full scale calibrations above 300,000 lb by quotation only.

Response Time: Up to 1 ms; non-impact loading

≤**3000 lb:** ±0.13% full scale >3000 lb: ±0.10% full scale

**Hvsteresis:** 

≤3000 lb: ±0.12% full scale >3000 lb: ±0.10% full scale

Repeatability: ±0.05%

Zero Balance: ±1.0% full scale **Operating Temperature:** -40 to 80°C (-40 to 176°F) **Compensated Temperature:** 16 to 71°C (60 to 160°F)

actual size.

2 m (6') integral USB cables

connects

directly to

LC411-50K-USBH shown smaller than

your PC

**Thermal Effects:** 

**Zero:** 0.0045%FSO/°C (0.003%FSO/°F) **Span:** 0.006%FSO/°C (0.004%FSO/°F) Safe Overload: 150% full scale capacity Ultimate Overload: 300% full scale

High Speed 1000 Updates per

Second

capacity

Full Scale Deflection: 0.025 to 0.076 mm

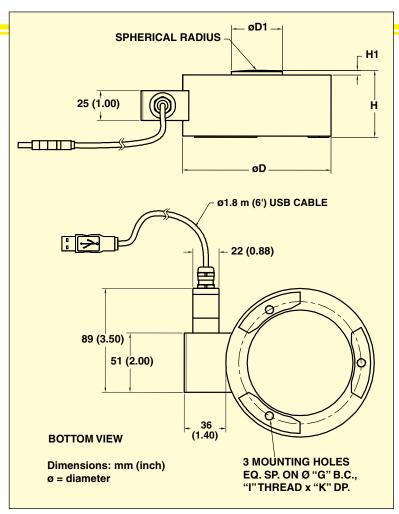
(0.001 to 0.003") typical

Electrical Connection: 1.8 m (6') cable

with standard USB connector **Protection Class: IP65** 

Dimensions: mm (inch)

| CAPACITY         |                  |             |              |            |            |            |            |                       |
|------------------|------------------|-------------|--------------|------------|------------|------------|------------|-----------------------|
| lb               | kg               | D           | D1           | Н          | H1         | K          | G          | I                     |
| STANDARD MODELS  |                  |             |              |            |            |            |            |                       |
| 50 to 10,000     | 23 to 4537       | 66 (2.62)   | 19.05 (0.75) | 32 (1.25)  | 2.3 (0.09) | 6.4 (0.25) | 56 (2.18)  | 6-40 UNF-2B           |
| 15,000 to 25,000 | 6806 to 11,343   | 83 (3.25)   | 24.89 (0.98) | 41 (1.62)  | 2.3 (0.09) | 6.4 (0.25) | 69 (2.71)  | 10-32 UNF-2B          |
| 50,000 to 75,000 | 22,686 to 34,029 | 127 (5.00)  | 41.15 (1.62) | 64 (2.50)  | 3.0 (0.12) | 6.4 (0.25) | 105 (4.12) | %6-24 UNF-2B          |
| 100,000          | 45,372           | 152 (6.00)  | 44.45 (1.75) | 89 (3.50)  | 3.8 (0.15) | 9.4 (0.37) | 124 (4.87) | ⅓6 <b>-</b> 20 UNF-2B |
| 200,000          | 90,744           | 203 (8.00)  | 69.85 (2.75) | 121 (4.75) | 4.6 (0.18) | 13 (0.50)  | 164 (6.43) | %-18 UNF-2B           |
| 300,000          | 136,116          | 229 (9.00)  | 76.20 (3.00) | 121 (4.75) | 4.6 (0.18) | 16 (0.63)  | 191 (7.50) | %-16 UNF-2B           |
| 400,000          | 181,488          | 254 (10.00) | 76.20 (3.00) | 121 (4.75) | 6.4 (0.25) | 19 (0.75)  | 216 (8.50) | %-14 UNF-2B           |
| METRIC MODELS    |                  |             |              |            |            |            |            |                       |
| 55 to 11,023     | 25 to 5000       | 66 (2.62)   | 76.20 (3.00) | 32 (1.25)  | 2.3 (0.09) | 6.4 (0.25) | 56 (2.18)  | M4 x 0.7              |



#### FREE OMEGA® USBH Downloadable Software!

OMEGA is excited to announce the release of a major software update for USB Transducers! The fresh look and added features add even more value and flexibility to your transducer's performance.

Free OMEGA PC software takes the data from the transducer directly to the digital domain, turning your laptop or Windows<sup>®</sup> tablet (with USB connection) into a virtual meter, chart recorder, or data logger.

Also included are .NET APIs and a set for command-line access. Visit ftp://ftp.omega.com/public/DASGroup/products/USBH/ to download your free copy.\*

\*Includes software to run TRH Central compatible devices.

#### **STANDARD MODELS**

| To Order |         |                 |  |  |  |  |  |
|----------|---------|-----------------|--|--|--|--|--|
| CAPA     | CITY    |                 |  |  |  |  |  |
| lbf      | kgf     | MODEL NO.       |  |  |  |  |  |
| 50       | 23      | LC411-50-USBH   |  |  |  |  |  |
| 100      | 45      | LC411-100-USBH  |  |  |  |  |  |
| 250      | 114     | LC411-250-USBH  |  |  |  |  |  |
| 500      | 227     | LC411-500-USBH  |  |  |  |  |  |
| 1000     | 455     | LC411-1K-USBH   |  |  |  |  |  |
| 1500     | 682     | LC411-1.5K-USBH |  |  |  |  |  |
| 2000     | 909     | LC411-2K-USBH   |  |  |  |  |  |
| 3000     | 1361    | LC411-3K-USBH   |  |  |  |  |  |
| 5000     | 2269    | LC411-5K-USBH   |  |  |  |  |  |
| 10,000   | 4537    | LC411-10K-USBH  |  |  |  |  |  |
| 15,000   | 6806    | LC411-15K-USBH  |  |  |  |  |  |
| 20,000   | 9074    | LC411-20K-USBH  |  |  |  |  |  |
| 25,000   | 11,343  | LC411-25K-USBH  |  |  |  |  |  |
| 50,000   | 22,686  | LC411-50K-USBH  |  |  |  |  |  |
| 75,000   | 34,029  | LC411-75K-USBH  |  |  |  |  |  |
| 100,000  | 45,372  | LC411-100K-USBH |  |  |  |  |  |
| 200,000  | 90,744  | LC411-200K-USBH |  |  |  |  |  |
| 300,000  | 136,116 | LC411-300K-USBH |  |  |  |  |  |
| 400,000  | 181,488 | LC411-400K-USBH |  |  |  |  |  |

Comes complete with 5-point NIST traceable calibration, cable with USB connector, and free downloadable PC software. Dual bridge models available, add suffix "-DUAL" to model number and additional cost.

Ordering Example: LC411-1K-USBH, 1000 lbf capacity load cell with USB output.

### **METRIC MODELS**

| CAPA | ACITY  |                  |  |  |  |  |  |
|------|--------|------------------|--|--|--|--|--|
| kgf  | lbf    | MODEL NO.        |  |  |  |  |  |
| 25   | 55     | LCM411-25-USBH   |  |  |  |  |  |
| 50   | 110    | LCM411-50-USBH   |  |  |  |  |  |
| 100  | 220    | LCM411-100-USBH  |  |  |  |  |  |
| 150  | 331    | LCM411-150-USBH  |  |  |  |  |  |
| 250  | 551    | LCM411-250-USBH  |  |  |  |  |  |
| 500  | 1102   | LCM411-500-USBH  |  |  |  |  |  |
| 750  | 1653   | LCM411-750-USBH  |  |  |  |  |  |
| 1000 | 2205   | LCM411-1K-USBH   |  |  |  |  |  |
| 1500 | 3307   | LCM411-1.5K-USBH |  |  |  |  |  |
| 2500 | 5512   | LCM411-2.5K-USBH |  |  |  |  |  |
| 5000 | 11,023 | LCM411-5K-USBH   |  |  |  |  |  |

Comes complete with 5-point NIST traceable calibration certificate, cable with USB connector, and free downloadable PC software.

Dual bridge models available, add suffix "-DUAL" to model number and additional cost.

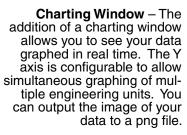
Ordering Example: LCM411-1K-USBH, 1000 kgf capacity metric load cell with USB output.

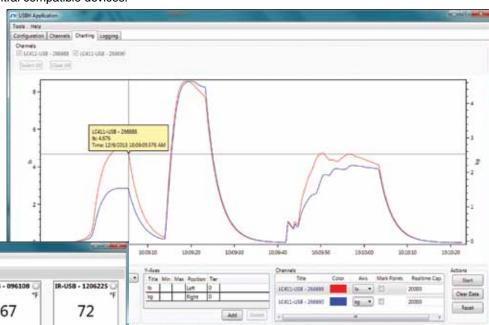
## OMEGA USBH MAJOR SOFTWARE UPDATE

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\* Includes software to run TRH Central compatible devices.







Channels Window – Display data from all of your sensors simultaneously. Each channel has configurable user alarms, three data filters, tare, resettable low/high indication, and sample rates ranging from 30 minutes to 1000 Hz.

PX409-USBH-425117
Units psi
Count 10
Last 14.2349
Low 14.2349
High 14.2353

**Logging Window** – A new xls filetype output option presents preformatted data for readability. In addition, Live Statistics are displayed, including the sensor information, the start/stop time, the number of samples taken, the current reading, and the High/Low readings. With the logging window, you can capture your data for later analysis.

Support for Omega Pressure, Force, Temperature, and Humidity USB Transducers One software package supports:

PX409-\*-USB, PX409-\*-USBH, LC411-\*-USBH, TJ-USB, IR-USB, RH-USB and UTC-USB transducers.











