



## motionlabs.com | Load Sensing | 2-Ton / 5-Ton Load\*Cell System | Load\*Cell

The **Load\*Cell** is the primary component in the Motion Laboratories manufactured weight monitoring system, the **Cell\*Mate**. The stainless steel **Load\*Cells** work in unison with the eight channel **Cell\*Mate Hub** and **Cell\*Mate** Digital Display module, giving users the opportunity to monitor both dynamic and static loads in unlimited quantities, from one or more remote locations.

2-Ton **Load\*Cells** are fitted with standard 5/8" rigging shackles with a 3/4" shaft. 5-Ton **Load\*Cells** are fitted with standard 3/4" rigging shackles with a 7/8" shaft.

Each universal **Load\*Cell** has a 2-Ton or 5-Ton rating with a built-in 5:1 safety factor.

Each **Load\*Cell** transmits inline force measurements to the eight channel hub unit via a 6 Pin XLR cable. The **Cell\*Mate Hub** unit then sends all channels of data to the **Cell\*Mate** Digital Display module via a single 6 Pin XLR cable. This design greatly decreases setup time by eliminating multiple cable home runs.

Spherical bearings at either end allow the **Load\*Cells** to self-align, eliminating side-load interference and providing the most accurate measurements possible.

The **Load\*Cell** also works with **The Warden**, a new addition to the **Cell\*Mate** family. See Cut Sheet for further details.

### Load\*Cell | features & functions

**Stainless Steel Construction:** Each **Load\*Cell** is made of rugged stainless steel with either a 2-Ton or 5-Ton rated capacity.

**Safety Factor:** All structural components in the **Load\*Cell** have been engineered using a 5:1 safety factor, per industry standards.

**Pre-Rigged:** Each **Load\*Cell** comes pre-rigged from Motion Laboratories with standard 5/8" or 3/4" shackles.

**Universal Load\*Cell:** Whether hanging 10 lbs. or 10,000 lbs. the measuring capacity of our Universal **Load\*Cell** will fulfill all your weight monitoring needs.

**Spherical Bearings:** **Load\*Cells** are designed with a spherical bearing at each end. This feature allows the **Load\*Cell** to self-align when under load. This design prevents the **Load\*Cell** from binding on any of the rigging components and creating added torque which can affect load measurements. This condition, known as side-loading, is all but eliminated with our precision steel bearings.

**Digital Signal:** The **Load\*Cell** transmits load data to the **Cell\*Mate Hub** unit digitally, using RS485 communication protocols. Each **Load\*Cell** must be connected to the hub unit with a 6 Pin XLR cable. Distance is not a limiting factor for these cables. Each data cable is effective up to lengths of 1000 feet.

**Calibration:** Each **Load\*Cell** is calibrated and thoroughly tested by Motion Laboratories before it leaves our facility. Calibration dates are documented on each **Load\*Cell**. It is mandatory that you schedule annual recertification with Motion Laboratories for all of your **Load\*Cells**.

**Maintenance:** **Load\*Cells** require very little maintenance during their lifespan. Aside from annual certification and general safe handling techniques, you should regularly lubricate the spherical bearings in each cell to maintain accurate results.

### 2-Ton / 5-Ton Load\*Cell | specifications

**Part Number:** A-17-003-0001 / A-17-003-0002

**Load\*Cell Material:** Stainless Steel

**Spherical Bearing Material:** Bearing Steel

**Electronics Housing Material:** Steel

**Weight:** 5.1 lbs. / 8.7 lbs.

**Load Rating 2-Ton:** 2 Metric Tons - rated 4500 lbs. (2000 kg)

**Load Rating 5-Ton:** 5 Metric Tons - rated 10,000 lbs. (4480 kg)  
engineered using a 5:1 safety factor (all structural components)

**Communication Protocols:** RS485

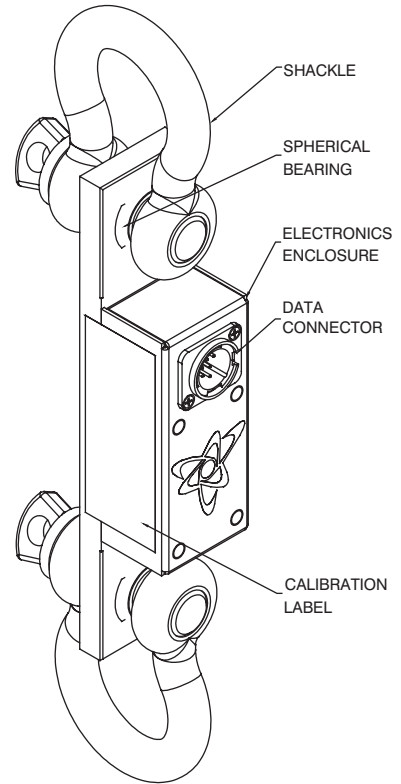
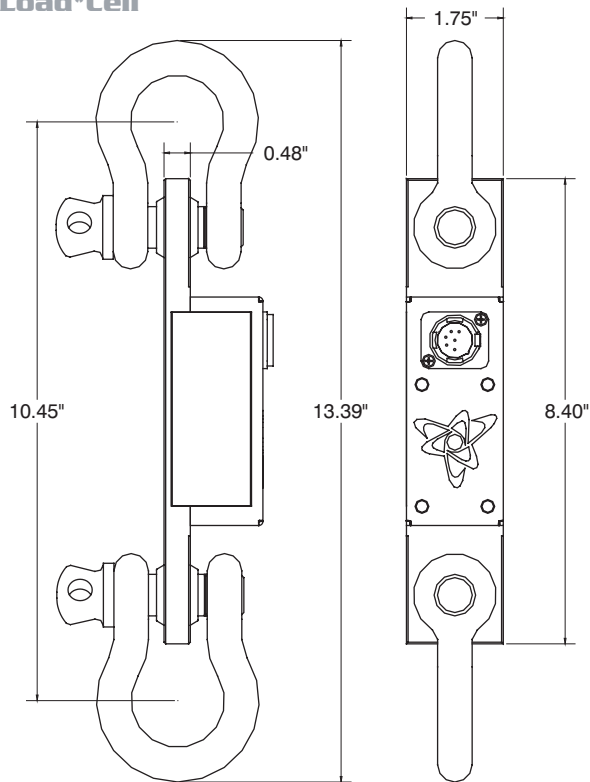
**Cable:** 22AWG 3 Tw Pair Shielded M/F 6 Pin XLR

### Load\*Cell | more information

For more information on this or any other products please contact our sales department via phone, fax, or e-mail. Our qualified sales representatives are determined to help you succeed.

Be sure to visit our website [[www.motionlabs.com](http://www.motionlabs.com)] for more information about Motion Laboratories and our products & services. Thank you for making Motion Laboratories your premier source for all of your power distribution and motor control solutions.

**2-Ton Load\*Cell**



**5-Ton Load\*Cell**

