

## Product Specifications: V3 Load\*Cell

### Functional Specification

The Motion Laboratories V3 Load\*Cell shall be the primary load bearing component of the Motion Laboratories V3 Cell\*Mate System. The Load\*Cell shall work in unison with the Cell\*Mate Hub and Cell\*Mate Touch Screen Display to monitor both dynamic and static loads. They shall be part of the A-17-003 Series.

### Features

- The Load\*Cell shall be available in a load rating of 2 Ton (Metric), 5 Ton, or 6 Ton.
- The 2 Ton and 5 Ton Load\*Cell shall have a 5:1 safety factor.
- The 6 Ton Load\*Cell shall have a 6:1 safety factor.
- The Load\*Cell shall be assembled with CM Super Strong Anchor Shackles.
- The Load\*Cell shall utilize a Wheatstone Bridge, to attain a high level of accuracy.
- The Load\*Cell shall have a 6-pin XLR data output connector.
- The Load\*Cell shall have Chrome Plated Steel Spherical Bearings that self-align when under load.
- The Load\*Cell shall be RF Shielded to protect electronic components.
- The Load\*Cell shall transmit data via a digital signal, using RS485 communication protocol.
- The Load\*Cell shall require minimal maintenance.
- The Load\*Cell shall transmit data in 1 pound increments.
- The Load\*Cell shall be capable of measuring 1,200 times per second.<sup>1</sup>
- The Load\*Cell shall be tested and certified to an accuracy of 2%.
- The Load\*Cell shall transmit data to a hub with a maximum cable length of 1000 feet.
- The Load\*Cell shall be manufactured in the USA.



### Physical Specifications

The Load\*Cell shall be made of 17-4PH Stainless Steel.

The Load\*Cell shall have a Housing made of 16 gauge 1020 Steel and have a dark gray sparkle metallic gloss smooth powder coat finish with yellow Motion Laboratories logo.

The Load\*Cell shall have Chrome Plated 4140 Steel Spherical Bearings.

The Load\*Cell shall have a weight of 5.1 pounds (2 Ton Metric) 8.7 pounds (5 Ton) & 14.4 pounds (6 Ton).

The Load\*Cell shall have the following shackle sizes: 5/8" (2 Ton Metric), 3/4" (5 Ton) & 7/8" (6 Ton).

<sup>1</sup> The Load\*Cell measures 1200 times per second capturing the peak load on the Load\*Cell. The Cell\*Mate Hub reads each channel's cell every 50 milliseconds and displays that load information on the Cell\*Mate Touch Screen Display. Please see V3 system specification for any additional information.

## **Electrical Specifications**

Unit Runs on 12VDC generated from the Cell\*Mate Hub's internal switching power supply.

## **Environmental Specifications**

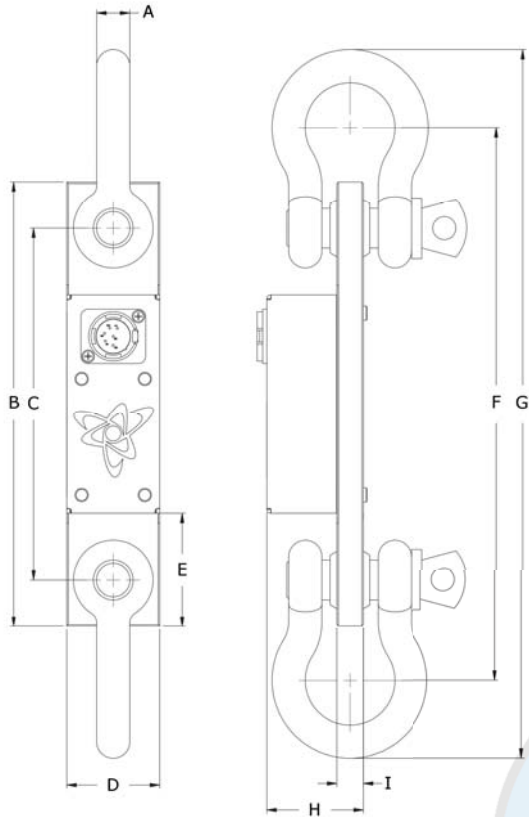
For indoor use only

## **Ratings and Certifications**

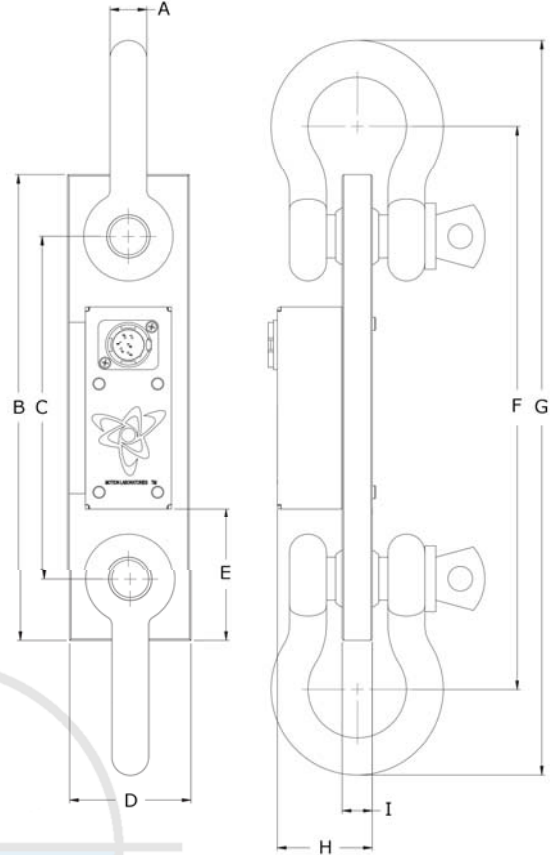
Motion Laboratories' V3 Load\*Cell utilizes UL and/or UR components and is built to the standards of the National Electric Code (NEC).

The Motion Laboratories Cell\*Mate Load\*Cell shall be tested to its full range using certified test equipment. This test results in a proof of performance certificate issued with each cell, indicating compliance with the listed specifications. In order to ensure their performance, the Load\*Cell shall require annual recertification by a Motion Laboratories Certified Technician.

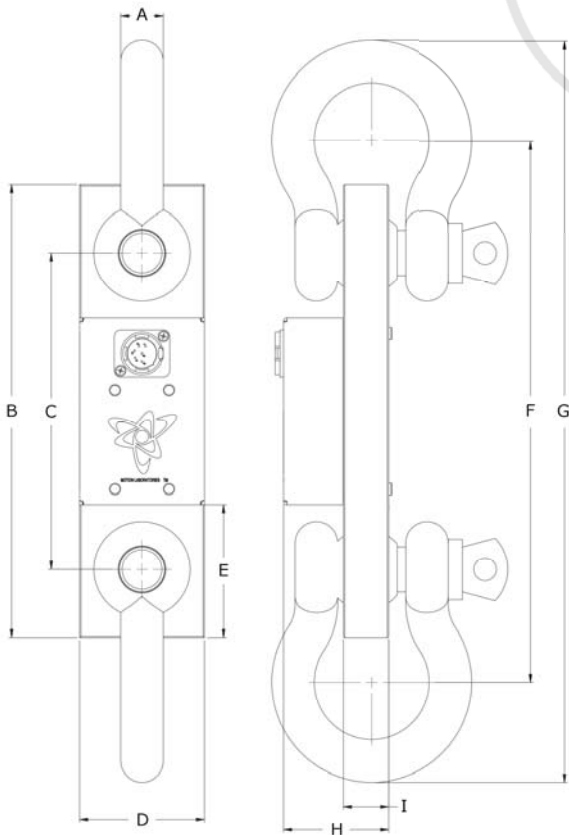
**Load\* Cell, 2 Ton (Metric) V3**



**Load\* Cell, 5 Ton V3**



**Load\* Cell, 6 Ton V3**



**Dimensions (In Inches)**

	2 Ton V3	5 Ton V3	6 Ton V3
A	0.625	0.750	0.938
B	8.400	9.500	10.000
C	6.640	6.993	7.000
D	1.750	2.469	2.750
E	2.137	2.687	2.938
F	10.450	11.493	11.969
G	13.390	14.993	16.375
H	1.818	1.928	2.318
I	0.500	0.610	1.000