

**ITCM**

Isolated Tension Cell Modules



Available in configurations with three or four mounting assemblies.  
Picture is a representation of actual product.

The ITCM Series utilizes several Rice Lake Weighing Systems components to provide an unmatched level of performance in tank and hopper weighing applications and mechanical scale conversions. The ITCM incorporates clevis and unique rod-end ball joint assemblies to reduce the overall length to less than half of the traditional tension cell mounts, while providing correct load alignment. In addition, the load cell is completely electrically isolated from stray currents, which are a major cause of load cell failure. To complete the design, a grounding strap connects the two clevis assemblies to further provide safety to your load cells.



Module with RL20000 s-beam load cell.

Important: Read "Load Cell Mounting Hardware Safety Guidelines"

**Standard Features**

- Capacities (per module): 100 lb-20,000 lb (45.4 kg-9,071.1 kg)
- Clevis mounts with nylon insulating washers
- PTFE-lined rod-end ball joints
- Load cell is completely isolated from stray currents\*
- Grounding strap provides alternative path to ground
- Complete package for ease of installation
- Provides correct load cell loading even in difficult installations
- Lower overall height compared to other isolated tension assemblies
- Zinc-plated clevis assemblies

\*Excluding 20,000 lb (9,071.9 kg) capacity

**Applications**

- Suspended hoppers and tanks
- Mechanical scale conversions
- Use as a single module or in multiples

**Complete Kit Includes**

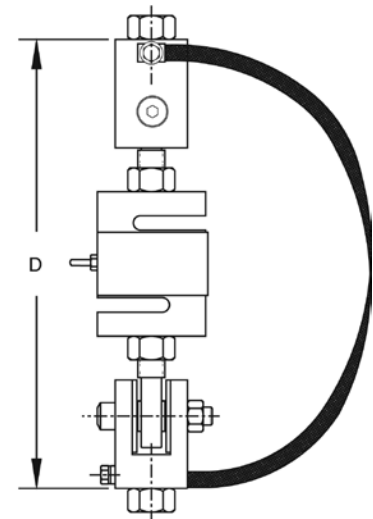
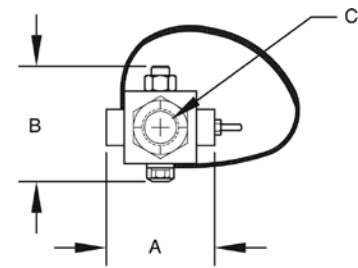
- Three or four ITCM assemblies with RL20000 NTEP Certified s-beam load cells
- One JB4SS NEMA Type 4X stainless steel signal trim junction box
- 25 ft of our hostile environment EL147HE SURVIVOR® load cell cable

**Load Cell Certifications**

**Load Rating Dimensions - Inches (mm)\***

| Load Cell Capacity<br>lb/in | A     | B     | C                                      | D           |
|-----------------------------|-------|-------|--|-------------|
| 100                         | 2.00  | 1.81  | 3/8-16 UNC<br>1/2-13 UNC               | 7.00 (ref)  |
| 150                         | 2.00  | 1.81  | 3/8-16 UNC<br>1/2-13 UNC               | 7.00 (ref)  |
| 200                         | 2.00  | 1.81  | 3/8-16 UNC<br>1/2-13 UNC               | 7.00 (ref)  |
| 250                         | 2.00  | 1.81  | 3/8-16 UNC<br>1/2-13 UNC               | 7.00 (ref)  |
| 500                         | 2.68  | 2.68  | 1/2-13 UNC<br>5/8-11 UNC<br>3/4-10 UNC | 9.50 (ref)  |
| 750                         | 2.68  | 2.68  | 1/2-13 UNC<br>5/8-11 UNC<br>3/4-10 UNC | 9.50 (ref)  |
| 1,000                       | 2.68  | 2.68  | 1/2-13 UNC<br>5/8-11 UNC<br>3/4-10 UNC | 9.50 (ref)  |
| 1,500                       | 2.68  | 2.68  | 1/2-13 UNC<br>5/8-11 UNC<br>3/4-10 UNC | 9.50 (ref)  |
| 2,000                       | 2.68  | 2.68  | 1/2-13 UNC<br>5/8-11 UNC<br>3/4-10 UNC | 9.50 (ref)  |
| 2,500                       | 2.68  | 2.68  | 5/8-11 UNC<br>3/4-10 UNC               | 9.50 (ref)  |
| 3,000                       | 3.37  | 3.37  | 3/4-10 UNC                             | 10.50 (ref) |
| 5,000                       | 3.37  | 3.37  | 3/4-10 UNC<br>1-8 UNC                  | 12.25 (ref) |
| 10,000                      | 3.37  | 3.37  | 1-8 UNC                                | 12.25 (ref) |
| 15,000                      | 4.00  | 4.12  | 1 1/4-7 UNC                            | 18.00 (ref) |
| 20,000                      | 5.00  | 4.12  | 1 1/2-6 UNC                            | 20.00 (ref) |
| kg/mm                       |       |       |  |             |
| 45.4                        | 50.8  | 46.0  | 3/8-16 UNC<br>1/2-13 UNC               | 177.8       |
| 68.0                        | 50.8  | 46.0  | 3/8-16 UNC<br>1/2-13 UNC               | 177.8       |
| 90.7                        | 50.8  | 46.0  | 3/8-16 UNC<br>1/2-13 UNC               | 177.8       |
| 113.4                       | 50.8  | 46.0  | 3/8-16 UNC<br>1/2-13 UNC               | 177.8       |
| 226.8                       | 68.1  | 68.1  | 1/2-13 UNC<br>5/8-11 UNC<br>3/4-10 UNC | 241.3       |
| 340.2                       | 68.1  | 68.1  | 1/2-13 UNC<br>5/8-11 UNC<br>3/4-10 UNC | 241.3       |
| 453.6                       | 68.1  | 68.1  | 1/2-13 UNC<br>5/8-11 UNC<br>3/4-10 UNC | 241.3       |
| 680.4                       | 68.1  | 68.1  | 1/2-13 UNC<br>5/8-11 UNC<br>3/4-10 UNC | 241.3       |
| 907.2                       | 68.1  | 68.1  | 1/2-13 UNC<br>5/8-11 UNC<br>3/4-10 UNC | 241.3       |
| 1,134.0                     | 68.1  | 68.1  | 5/8-11 UNC<br>3/4-10 UNC               | 241.3       |
| 1,360.8                     | 85.6  | 85.6  | 3/4-10 UNC                             | 266.7       |
| 2,268.0                     | 85.6  | 85.6  | 3/4-10 UNC<br>1-8 UNC                  | 311.2       |
| 4,535.9                     | 85.6  | 85.6  | 1-8 UNC                                | 311.2       |
| 6,803.9                     | 101.6 | 104.6 | 1 1/4-7 UNC                            | 457.2       |
| 9,071.9                     | 127.0 | 104.6 | 1 1/2-6 UNC                            | 508.0       |

\* Load rating is per module



**Order Information**

| Single Module |            | Part # (C)                 | Price   |
|---------------|------------|----------------------------|---------|
| 100 lb        | 45.4 kg    | <b>17851</b> (3/8-16 UNC)  | Consult |
|               |            | <b>17831</b> (1/2-13 UNC)  | Consult |
| 150 lb        | 68.0 kg    | <b>30337</b> (3/8-16 UNC)  | Consult |
|               |            | <b>30336</b> (1/2-13 UNC)  | Consult |
| 200 lb        | 90.7 kg    | <b>30335</b> (3/8-16 UNC)  | Consult |
|               |            | <b>30338</b> (1/2-13 UNC)  | Consult |
| 250 lb        | 113.4 kg   | <b>17852</b> (3/8-16 UNC)  | Consult |
|               |            | <b>17832</b> (1/2-13 UNC)  | Consult |
| 500 lb        | 226.8 kg   | <b>17853</b> (1/2-13 UNC)  | Consult |
|               |            | <b>17858</b> (5/8-11 UNC)  | Consult |
|               |            | <b>17833</b> (3/4-10 UNC)  | Consult |
| 750 lb        | 340.2 kg   | <b>17854</b> (1/2-13 UNC)  | Consult |
|               |            | <b>17859</b> (5/8-11 UNC)  | Consult |
|               |            | <b>17834</b> (3/4-10 UNC)  | Consult |
| 1,000 lb      | 453.6 kg   | <b>17855</b> (1/2-13 UNC)  | Consult |
|               |            | <b>17860</b> (5/8-11 UNC)  | Consult |
|               |            | <b>17835</b> (3/4-10 UNC)  | Consult |
| 1,500 lb      | 680.4 kg   | <b>17856</b> (1/2-13 UNC)  | Consult |
|               |            | <b>17861</b> (5/8-11 UNC)  | Consult |
|               |            | <b>17836</b> (3/4-10 UNC)  | Consult |
| 2,000 lb      | 907.2 kg   | <b>17857</b> (1/2-13 UNC)  | Consult |
|               |            | <b>17862</b> (5/8-11 UNC)  | Consult |
|               |            | <b>17837</b> (3/4-10 UNC)  | Consult |
| 2,500 lb      | 1,134.0 kg | <b>17863</b> (5/8-11 UNC)  | Consult |
|               |            | <b>17838</b> (3/4-10 UNC)  | Consult |
| 3,000 lb      | 1,360.8 kg | <b>30339</b> (3/4-10 UNC)  | Consult |
| 5,000 lb      | 2,268.0 kg | <b>17864</b> (3/4-10 UNC)  | Consult |
|               |            | <b>17839</b> (1-8 UNC)     | Consult |
| 10,000 lb     | 4,535.9 kg | <b>17840</b> (1-8 UNC)     | Consult |
| 15,000 lb     | 6,803.9 kg | <b>17960</b> (1 1/4-7 UNC) | Consult |
| 20,000 lb     | 9,071.9 kg | <b>17961</b> (1 1/2-6 UNC) | Consult |
| 3-Module Kit  |            | Part # (C)                 | Price   |
| 100 lb        | 45.4 kg    | <b>18003</b> (3/8-16 UNC)  | Consult |
|               |            | <b>18004</b> (1/2-13 UNC)  | Consult |
| 150 lb        | 68.0 kg    | <b>30357</b> (3/8-16 UNC)  | Consult |
|               |            | <b>30358</b> (1/2-13 UNC)  | Consult |
| 200 lb        | 90.7 kg    | <b>30361</b> (3/8-16 UNC)  | Consult |
|               |            | <b>30362</b> (1/2-13 UNC)  | Consult |
| 250 lb        | 113.4 kg   | <b>18005</b> (3/8-16 UNC)  | Consult |
|               |            | <b>18006</b> (1/2-13 UNC)  | Consult |
| 500 lb        | 226.8 kg   | <b>18007</b> (1/2-13 UNC)  | Consult |
|               |            | <b>18008</b> (5/8-11 UNC)  | Consult |
|               |            | <b>18009</b> (3/4-10 UNC)  | Consult |
| 750 lb        | 340.2 kg   | <b>18010</b> (1/2-13 UNC)  | Consult |
|               |            | <b>18011</b> (5/8-11 UNC)  | Consult |
|               |            | <b>18012</b> (3/4-10 UNC)  | Consult |
| 1,000 lb      | 453.6 kg   | <b>18013</b> (1/2-13 UNC)  | Consult |
|               |            | <b>18014</b> (5/8-11 UNC)  | Consult |
|               |            | <b>18015</b> (3/4-10 UNC)  | Consult |
| 1,500 lb      | 680.4 kg   | <b>18016</b> (1/2-13 UNC)  | Consult |
|               |            | <b>18017</b> (5/8-11 UNC)  | Consult |
|               |            | <b>18018</b> (3/4-10 UNC)  | Consult |
| 2,000 lb      | 907.2 kg   | <b>18019</b> (1/2-13 UNC)  | Consult |
|               |            | <b>18020</b> (5/8-11 UNC)  | Consult |
|               |            | <b>18021</b> (3/4-10 UNC)  | Consult |
| 2,500 lb      | 1,134.0 kg | <b>18022</b> (5/8-11 UNC)  | Consult |
|               |            | <b>18023</b> (3/4-10 UNC)  | Consult |
| 3,000 lb      | 1,360.8 kg | <b>30365</b> (3/4-10 UNC)  | Consult |
| 5,000 lb      | 2,268.0 kg | <b>18024</b> (3/4-10 UNC)  | Consult |
|               |            | <b>18025</b> (1-8 UNC)     | Consult |
| 10,000 lb     | 4,535.9 kg | <b>18026</b> (1-8 UNC)     | Consult |
| 15,000 lb     | 6,803.9 kg | <b>30353</b> (1 1/4-7 UNC) | Consult |
| 20,000 lb     | 9,071.9 kg | <b>30355</b> (1 1/2-6 UNC) | Consult |

| 4-Module Kit |            | Part # (C)                 | Price   |
|--------------|------------|----------------------------|---------|
| 100 lb       | 45.4 kg    | <b>18027</b> (3/8-16 UNC)  | Consult |
|              |            | <b>18028</b> (1/2-13 UNC)  | Consult |
| 150 lb       | 68.0 kg    | <b>30359</b> (3/8-16 UNC)  | Consult |
|              |            | <b>30360</b> (1/2-13 UNC)  | Consult |
| 200 lb       | 90.7 kg    | <b>30363</b> (3/8-16 UNC)  | Consult |
|              |            | <b>30364</b> (1/2-13 UNC)  | Consult |
| 250 lb       | 113.4 kg   | <b>18029</b> (3/8-16 UNC)  | Consult |
|              |            | <b>18030</b> (1/2-13 UNC)  | Consult |
| 500 lb       | 226.8 kg   | <b>18031</b> (1/2-13 UNC)  | Consult |
|              |            | <b>18032</b> (5/8-11 UNC)  | Consult |
|              |            | <b>18033</b> (3/4-10 UNC)  | Consult |
| 750 lb       | 340.2 kg   | <b>18034</b> (1/2-13 UNC)  | Consult |
|              |            | <b>18035</b> (5/8-11 UNC)  | Consult |
|              |            | <b>18036</b> (3/4-10 UNC)  | Consult |
| 1,000 lb     | 453.6 kg   | <b>18037</b> (1/2-13 UNC)  | Consult |
|              |            | <b>18038</b> (5/8-11 UNC)  | Consult |
|              |            | <b>18039</b> (3/4-10 UNC)  | Consult |
| 1,500 lb     | 680.4 kg   | <b>18040</b> (1/2-13 UNC)  | Consult |
|              |            | <b>18041</b> (5/8-11 UNC)  | Consult |
|              |            | <b>18042</b> (3/4-10 UNC)  | Consult |
| 2,000 lb     | 907.2 kg   | <b>18043</b> (1/2-13 UNC)  | Consult |
|              |            | <b>18044</b> (5/8-11 UNC)  | Consult |
|              |            | <b>18045</b> (3/4-10 UNC)  | Consult |
| 2,500 lb     | 1,134.0 kg | <b>18046</b> (5/8-11 UNC)  | Consult |
|              |            | <b>18047</b> (3/4-10 UNC)  | Consult |
| 3,000 lb     | 1,360.8 kg | <b>30366</b> (3/4-10 UNC)  | Consult |
| 5,000 lb     | 2,268.0 kg | <b>18048</b> (3/4-10 UNC)  | Consult |
|              |            | <b>18049</b> (1-8 UNC)     | Consult |
| 10,000 lb    | 4,535.9 kg | <b>18050</b> (1-8 UNC)     | Consult |
| 15,000 lb    | 6,803.9 kg | <b>30354</b> (1 1/4-7 UNC) | Consult |
| 20,000 lb    | 9,071.9 kg | <b>30356</b> (1 1/2-6 UNC) | Consult |