

Pioneering Measured Solutions

Short Selection Guide

Weigh Module

group-4.com

GROUP FOUR WEIGH MODULES

Group Four's Weigh modules are used in a variety of weighing applications including tank, silo, bin, and hopper weight measurement. Simply place a module underneath each leg, calibrate to an instrument, and that structure is now a scale.



Capacity Range:

Capacities ranging from 22lb to 220,000lb



Material Construction:

Aluminum and Stainless steel



Environmental Protection:

IP67
IP69



Options:

- Different mounting and loading sizes
- Weighing accessories



Customized solutions:

When it is not possible to match standard load cell for any application, Group Four can specially check the requirement and provide economical customized load cell solutions.

APPLICATIONS



Hopper

Tank

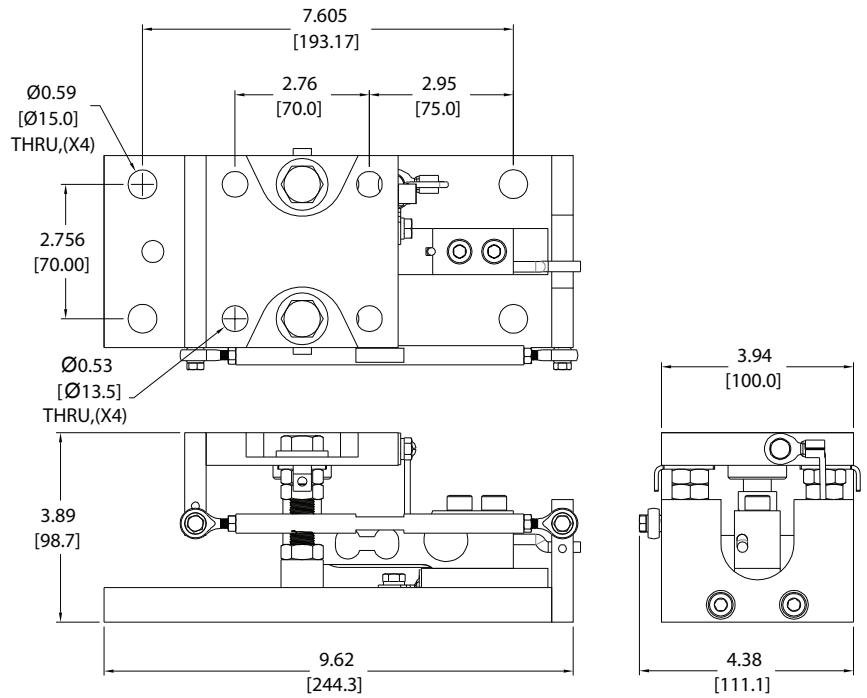


Silo




ZQSWM

1000WM55



 22-441lb
[10-200g]

 IP67

 Load cell:
Stainless steel

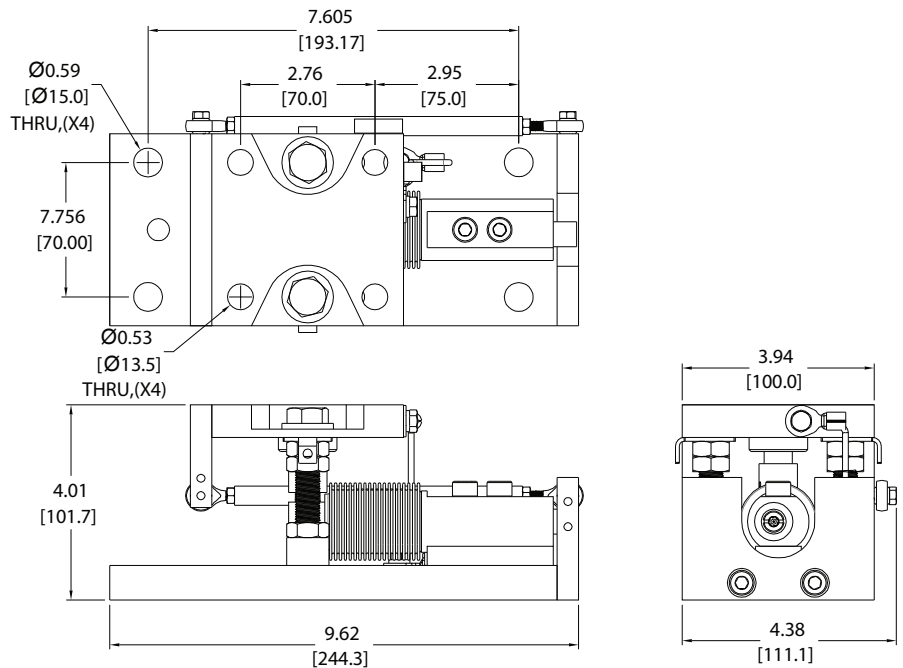
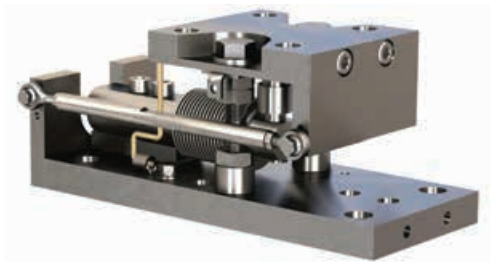
 2.0 mV/V

 NL 0.03%FS,
HYS 0.03%FS

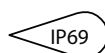


ZQSHWM

1000WM55



 22-441lb
[10-200g]

 IP69

 Load cell:
Stainless steel

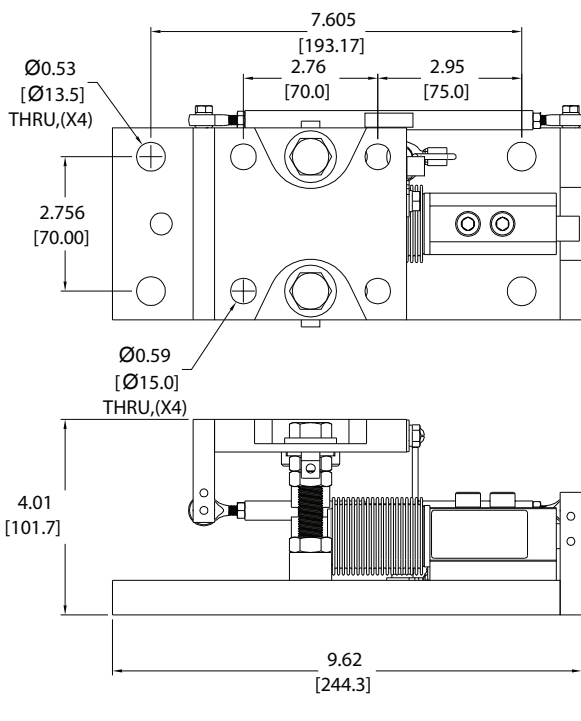
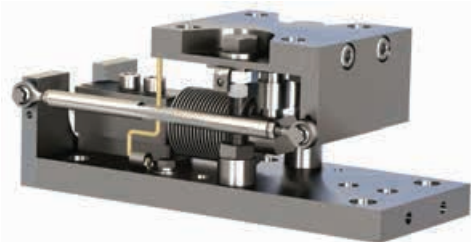
 2.0 mV/V


 NL 0.03%FS,
HYS 0.03%FS



ZQSHDWM

1000WM55



 **22-441lb**
[10-200g]

 IP69

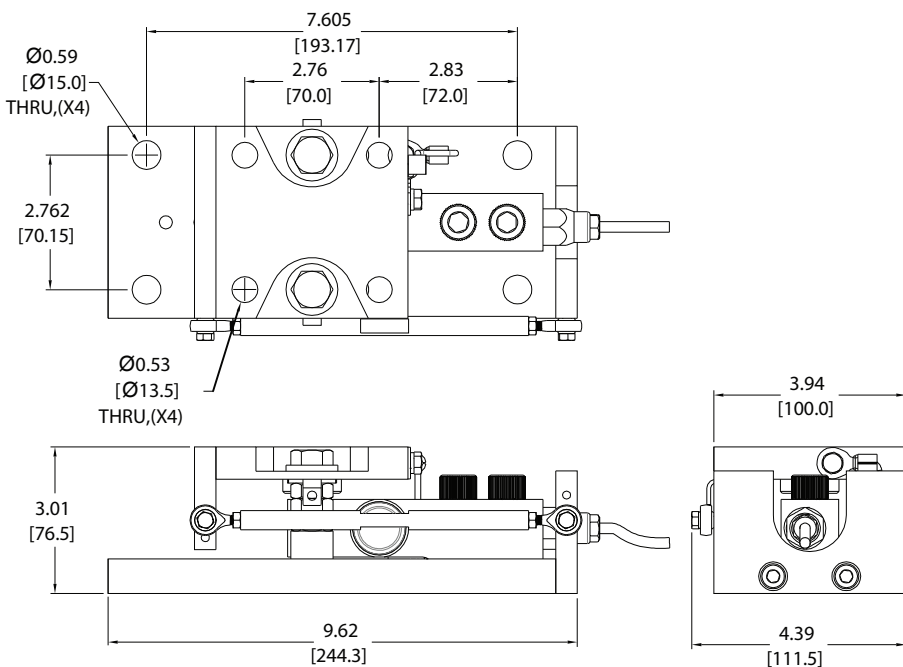
 **Load cell:**
Stainless steel

 **COMMUNICATION**
INTERFACE:
RS-232+CAN
RS-485+RS-422

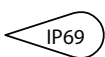
 **COM.ERROR 0.03%FS,**

RB14WM

1000WM5



 **500-5000lb**
[227-2268ag]

 IP69

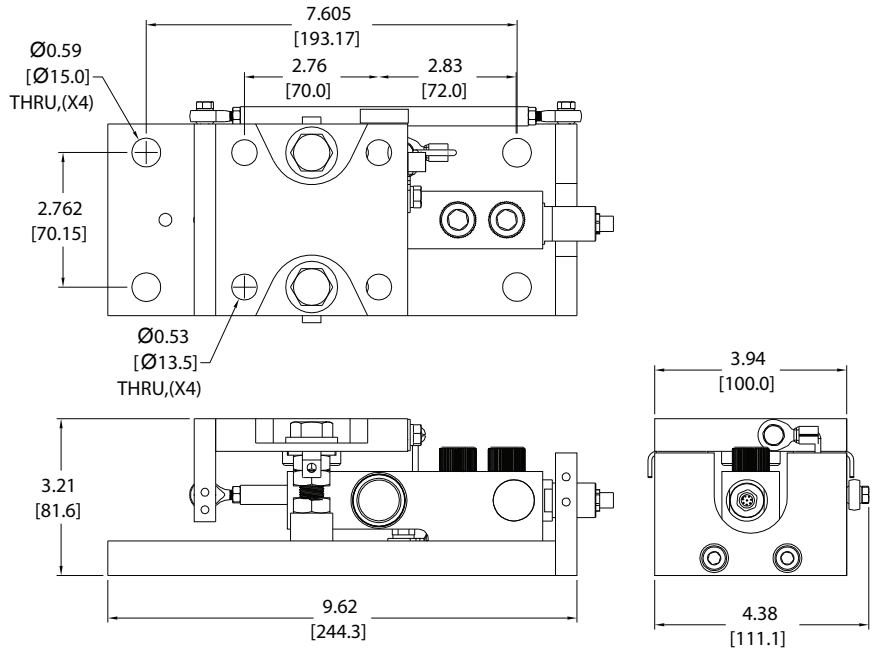
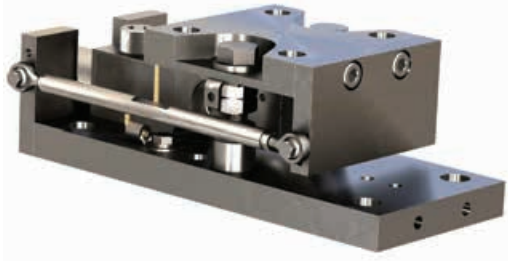
 **Load cell:**
Stainless steel

 **2.0 mV/V**

 **NL 0.017%FS,**
HYS 0.017%FS

RB14DWM

1000WM5



 **450-4496klb**
[204-2039kg]

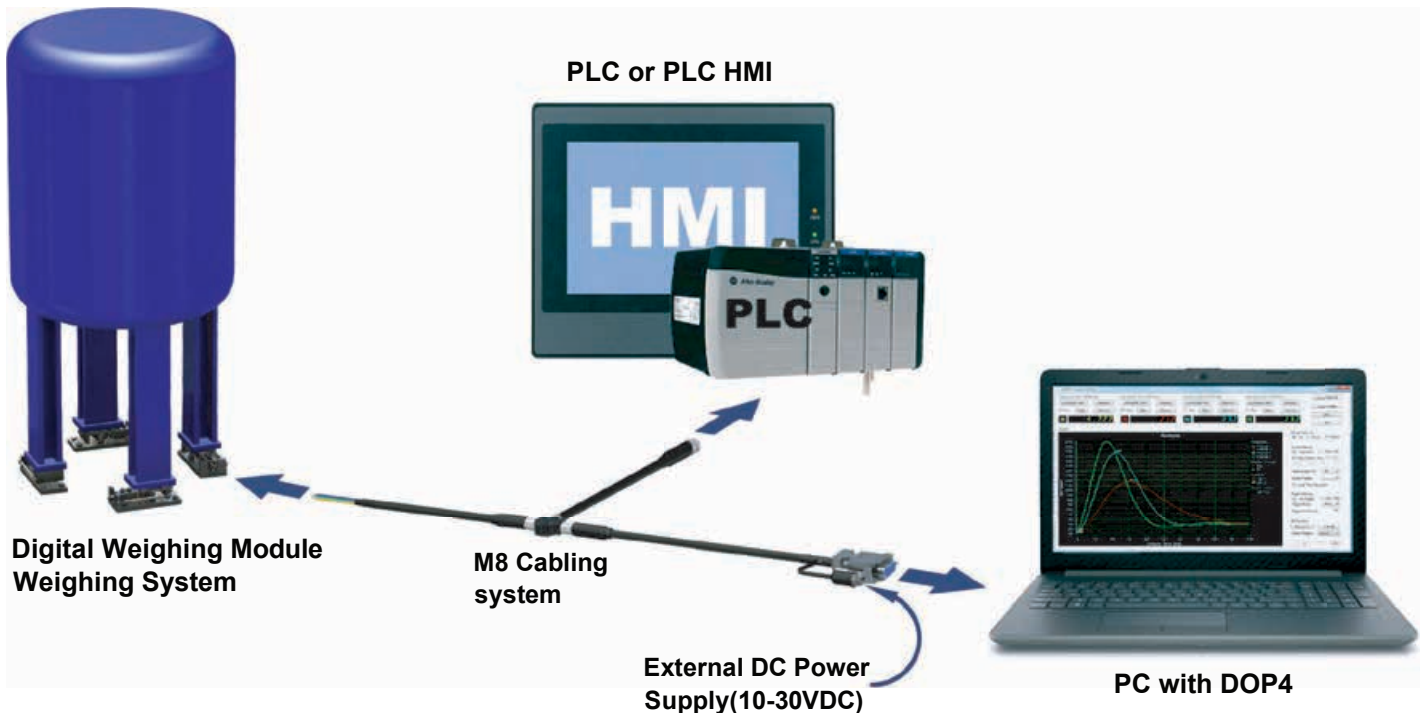
 **IP69**

 **Load cell:**
Stainless steel

 **COMMUNICATION**
INTERFACE:
RS-232+CAN
RS-485+RS-422

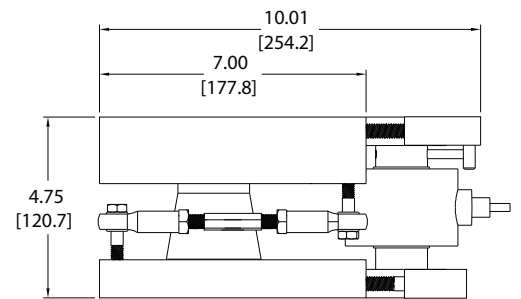
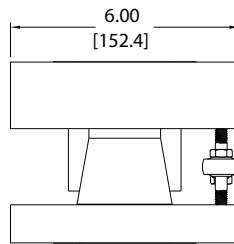
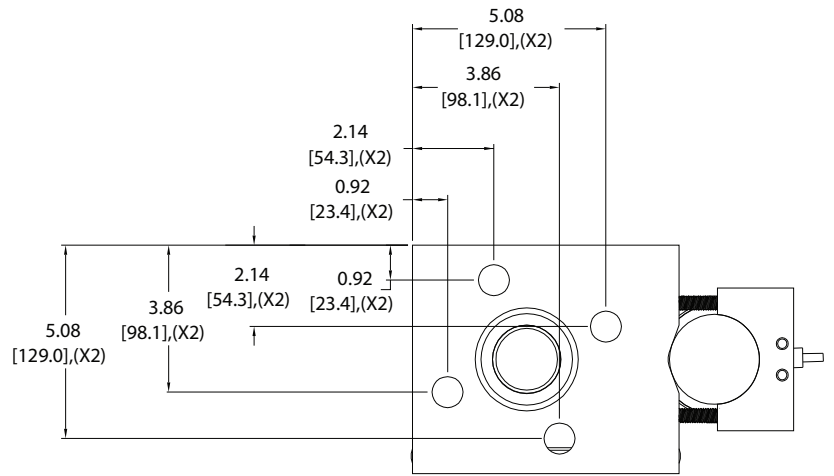
 **COM.ERROR 0.03%FS,**

APPLICATION

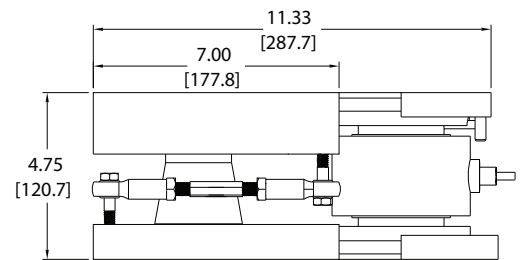
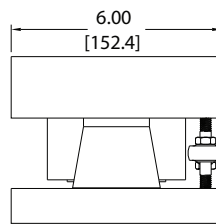
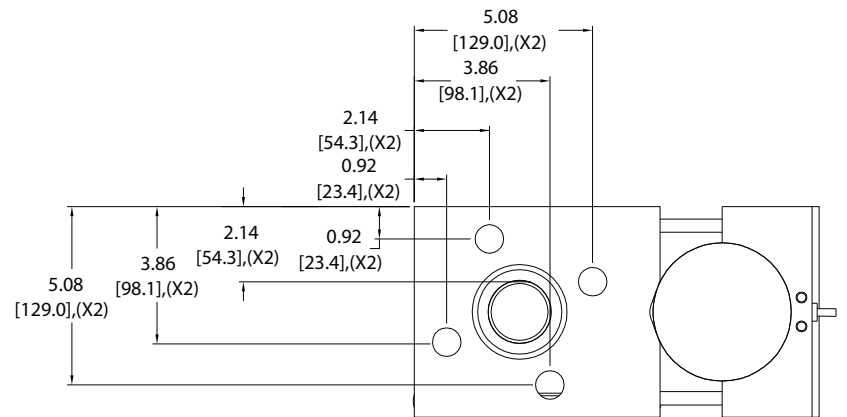


RCWM 5000WM3

5-50t



100t



11-220klb
[5-100t]



Load cell:
Stainless steel

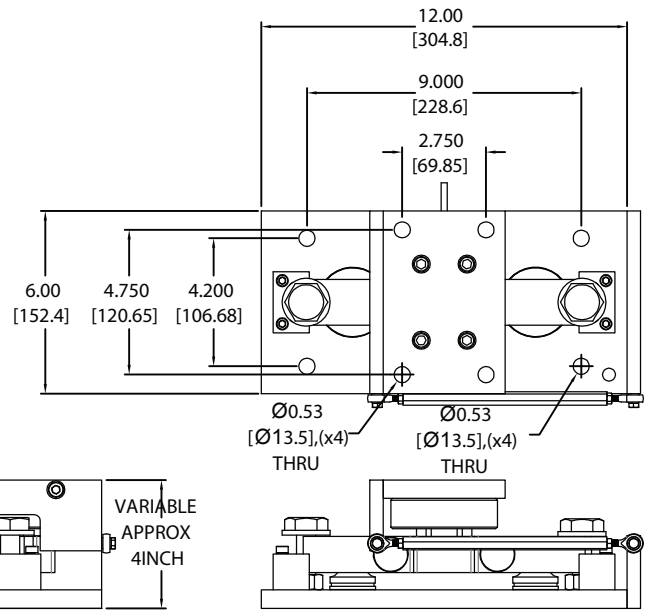


2.0 mV/V



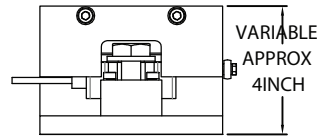
5-50t: NL 0.03%FS, HYS 0.05%FS
100t: NL 0.02%FS, HYS 0.02%FS

DB



 **1-20klb**
[454-9072kg]

 IP69

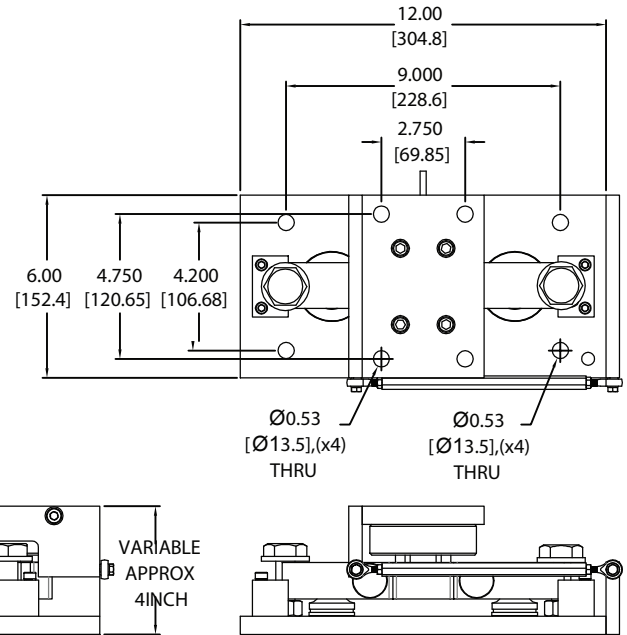
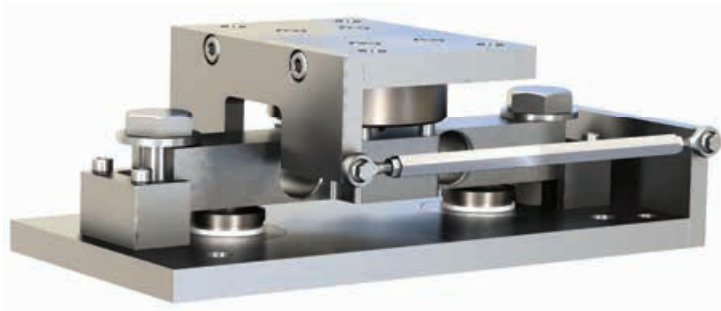


 **Load cell:**
Stainless steel

 **2.0 mV/V**

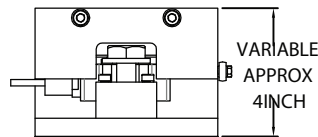
 **NL 0.04%FS,**
HYS 0.04%FS

DBD




 **1-20klb**
[454-9072kg]

 IP69



 **Load cell:**
Stainless steel

 **COMMUNICATION**
INTERFACE:
RS-232+CAN
RS-485+RS-422

 **COM.EROR 0.05%FS**

RB14DWM - Dog bone weigh module

In the real world, load cell mounting and loading conditions are far from ideal. Incorrect loading types, such as, Angular Loading, Eccentric Loading, Side Loading & Torsional/ twisting loading are by far the most common cause of accuracy problems encountered by service technicians.

These Incorrect loading types can be caused by thermal expansion/contraction, mounts that are out of level, a nonrigid foundation, structure deflection under load, the unavoidable deflection of the load cell itself, poorly designed mounting arrangements vessel dynamics (caused by mixers, etc.).

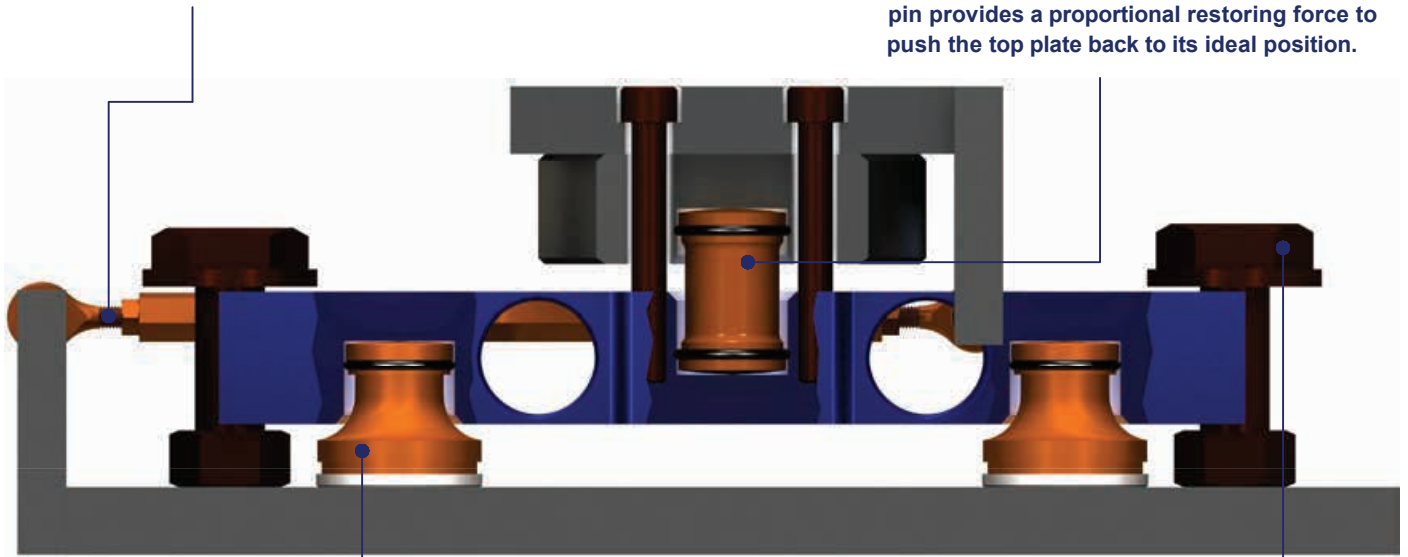
Group Four developed highly reliable Dog bone weigh module which prevents these incorrect loading conditions automatically.

Stay Rods(Constrainers)

Stay rods are recommended for restraining the tank, while allowing thermal expansion for the structure. Stay rod restraints must always be provided for tanks with stirrers.

Self-Restoring Rocker Pin

The rocker pin introduces loads to the load cell, providing accurate weighing even when there are strong horizontal forces. As the top plate moves laterally away from its ideal position, the rocker pin provides a proportional restoring force to push the top plate back to its ideal position.



Rocker Pin Foot

Rocker pin automatically align in blind-hole load point, concentrating all vertical load at one point on the load cell. Best way of bending without causing side loads and moments. This type suspension system is more reliable and durable than threaded connection.

Anti-Lift Off

Anti-lift off protection is provided, if the center of gravity of the tank is above the support points and the effects of wind or other external forces cannot be excluded, the tank must also be protected against tipping or lifting.

PTFE Slide Bearing

With the free-sliding module, the rocker pin foot has a flat bottom surface which is free to slide in all directions. To minimize friction, the bottom surface of the pin is made of PTFE and slides on a smooth stainless steel slider plate.

Benefits/Advantages

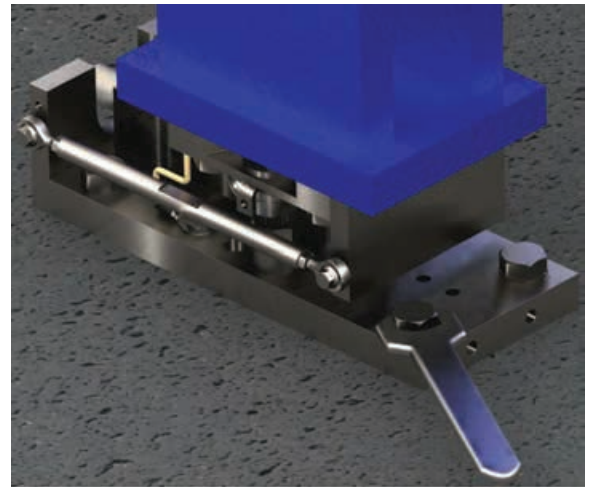
- Prevent loadcell generating distort measurement results due to thermal expansion and horizontal forces.
- More consistent weigh measurement, Improve performance ,NL , Hys.
- Self-centering rocker pin that ensures optimal force application and allows immediate use without needing calibration.
- The rocker pin suspension returns the scale to a perfect setting point each time making them superior at retaining zero, calibration and expected performance. there is no binding during use.
- Prevent damaging of load cell allowing horizontal and thermal expansion.
- Damaged suspension components are easily replaced since they are not threaded into the cell.
- These scales are easily maintained and last a very long time.
- Scale calibration holds longer on these types of scales when compared to a threaded mounting type.
- This is specifically designed to prevent system uplift, overload, and excessive side force from becoming catastrophic safety incidents.

SPECIAL FEATURES

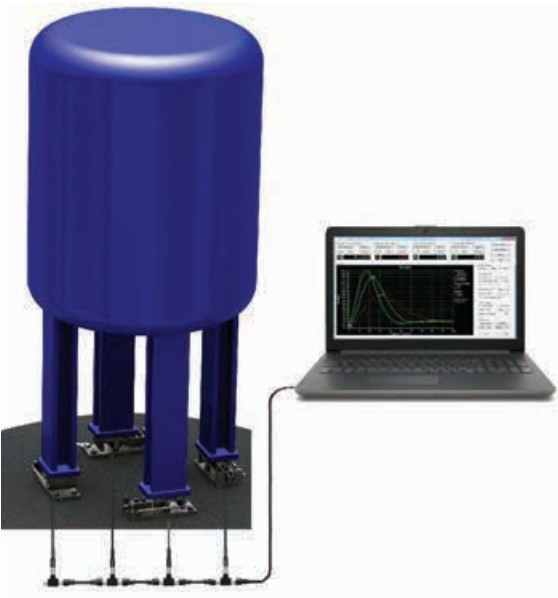
Stainless steel construction
High corrosion protection



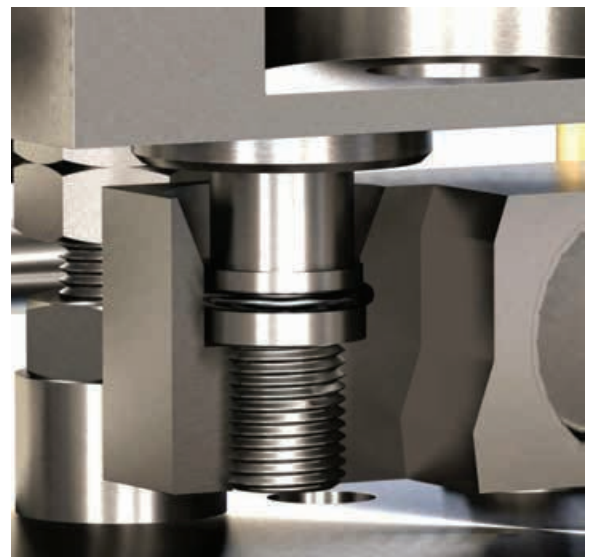
Mounting bolts location for ease of installation



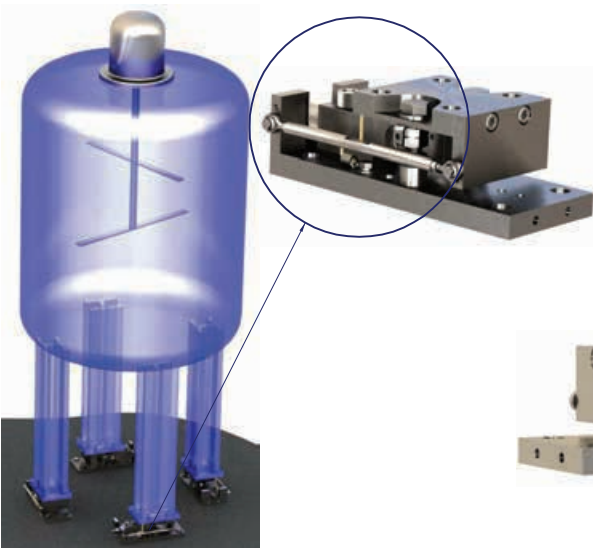
Digital ease of calibration, setup
and high accuracy



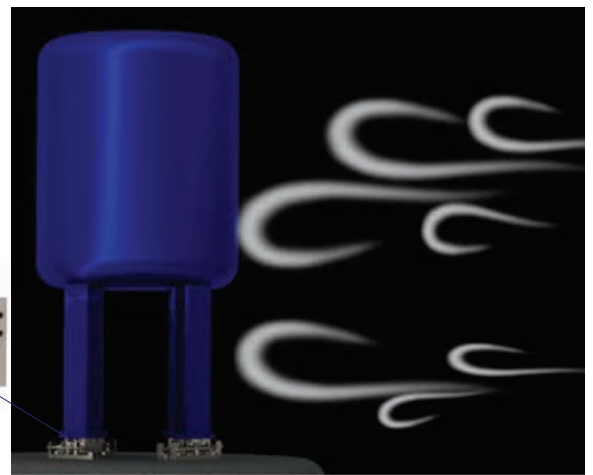
Rocker pin load introduction



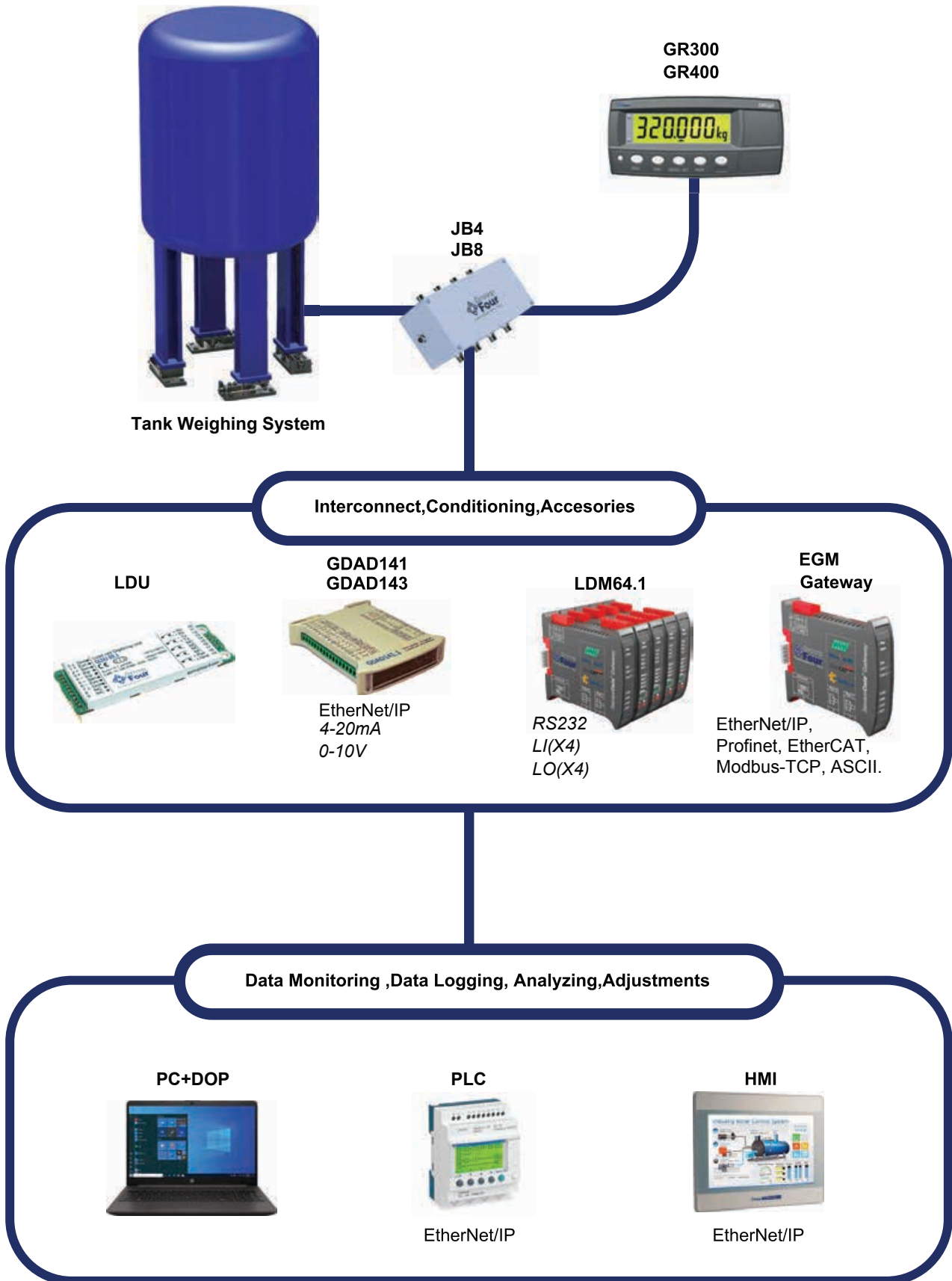
Check link for tank with agitation



Hermetic loadcells for heavy washdown



Measurement Chain



Locations

Group Four Transducers
Global Headquarters
sales-us@group-4.com

European Sales
sales-eu@group-4.com

Asia Sales
sales-cn@group-4.com

Mexico
sales-mx@group-4.com

Australia
sales-au@group-4.com

Business Development
Los Angeles, CA
sales-us@group-4.com

Design and Manufacturing
Dankotuwa, Sri Lanka
sales-sl@group-4.com

India
sales-in@group-4.com

Group Four connects weigh modules and other analog systems with signal conditioners to convert, analog signals into digital signals. The Group Four process instrumentation support Ethernet/IP (AB), Profinet, EtherCAT, Modbus TCP, and other communication systems enabling high speed digital data transmissions.

Group Four's pursuit of excellence takes your measurements a step ahead into the world of digital load cells, where you will find load cells with embedded electronics thereby eliminating the need of signal amplification and conversion. You get direct digital output in RS232+CAN or RS485+RS422 format. Connect it directly to your PLC or PC, use our highly futuristic DOP4 software and leave your competition way behind.

**Contact a Group Four Application Engineer
to Discuss Your Measurement System Today!**

Group Four Transducers
22 Deer Park Drive,
E. Longmeadow, MA 01028
www.groupfourtransducers.com
Phone : (800) 419 1444
Fax : (413) 525 -6182
sales@group-4.com