0970 RINGMOUNT™

Weigh Modules

- ☑ Accuracy
- ☑ Clean in Place
- ☑ Support
- ☑ International Approvals

For Sanitary Process Weighing Applications

METTLER TOLEDO

When Accuracy and Sanitation are Vital

METTLER TOLEDO Model 0970 RINGMOUNT™ Weigh Modules were developed to meet your most demanding process monitoring applications. The 0970's are ideal for tank and vessel weighing applications in the food, pharmaceutical, chemical, and biotech industries.

The Model 0970 offers unparalleled performance in a compact sanitary package. The 0970 load cell sensor is among the most accurate available on the market today. The self-centering suspension ensures the highest degree of accuracy and repeatability throughout repeated process cycles. The smooth sanitary design discourages bacteria growth and eases the clean-in-place process.

Meets or Exceeds Global Standards
Why take the risk of letting weight measurement, which is a fraction of the total process cost, jeopardize your product line? METTLER TOLEDO load cells meet or exceed accuracy requirements of U.S. and International regulatory agencies.

Our load cells can be used in hazardous areas with the entire line of METTLER TOLEDO Intrinsically Safe Instrumentation, meeting Factory Mutual and international requirements. Our load cells can also be used with other instrumentation meeting our approved "entity" parameters.

We manufacture all weigh module components in our own ISO 9001 certified plants.

0970 Mounting System
The load pin in the 0970 RINGMOUNT™ is not fixed in the load cell. The load pin makes point contact with the load cell and load receiver plate. The load pin oscillates when subjected to horizontal forces. Once the scale stabilizes, the load pin returns to a true vertical position, ensuring accurate repeatable weight.

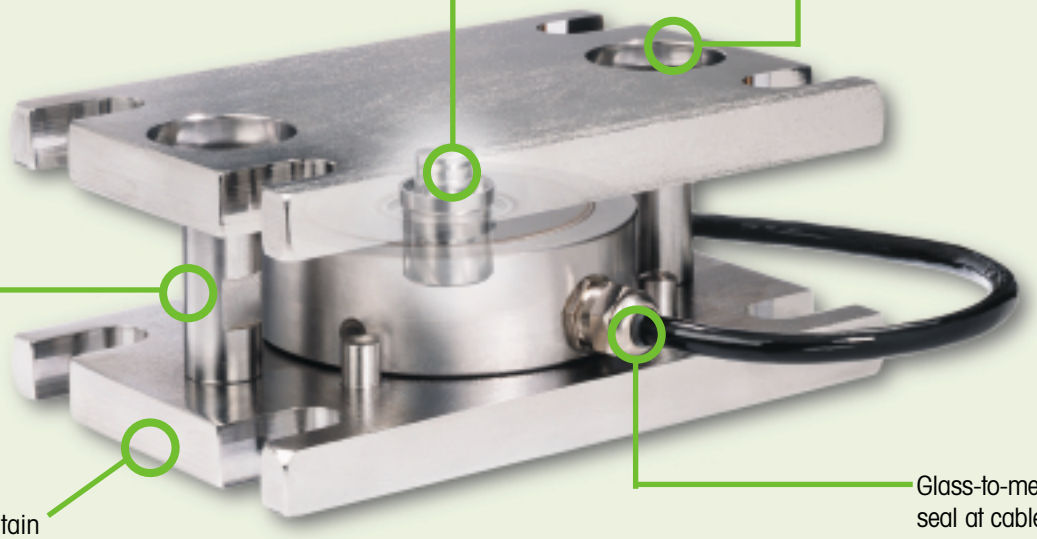
Hold-down bolts contact the upper plate during motion, limiting the horizontal movement of the scale. These same hold-down bolts also prevent vessel tipping due to accidental contact, wind loading, or seismic events.

Features	Benefits
All stainless steel construction: 316L mounting plates, 17-4 load cell and load pin	Resists corrosion and contamination
Load cell is hermetically sealed via a laser welded glass-to-metal cable connection	Prevents moisture penetration into load cell, increases life of load cell
Smooth design void of exposed threads, limited holes and cavities	Prevents bacteria growth, eases clean-in-place or steam-in-place process
Integrated overload stop	Prevents damage due to accidental overload
Ultra-low profile, 58.4 mm (2.3 in) up to 5000 Kg	Saves space, fits where others cannot, lowers vessel C.G. for increased stability
Self-centering load pin suspension	Ensures accurate repeatable weighments
Self-checking design	No additional check rods to install
High impedance 1100 ohm bridges	Low power consumption, low voltage drop in hazardous areas, drive more load cells
Factory Mutual entity and Ex European approvals	Load cell meets global hazardous area requirements
NTEP and OIML certification	Load cell has third-party verification to global accuracy performance standards
Load cell available in 6000d OIML version	Highest accuracy available in strain-gage load cell, ensures precise control of valuable materials.

Self-centering 17-4 stainless steel load pin maintains proper load transmission, ensuring accurate repeatable weighments.

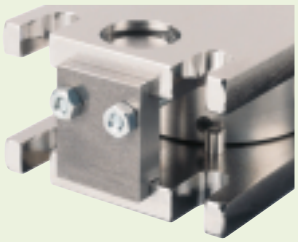
Corrosion resistant 316L stainless steel mounting hardware is standard.

Hold-down bolt checks horizontal movement and prevents vessel tipping.



Shipping blocks maintain proper alignment between mounting plates, greatly easing the installation process.

Glass-to-metal hermetic seal at cable entry prevents moisture penetration. Meets IP68 specification.



Approvals

Model RLC load cells meet or exceed NIST Handbook 44 accuracy requirements for legal-for-trade application and have been issued an NTEP Certificate of Conformance.

Model RLC load cells meet or exceed OIML C3 R60 requirements.

Model RLC load cells meet European Standards and have been issued a CE Declaration of Conformance.

Model RLC load cells have Factory Mutual Entity approval for use in hazardous areas.

Model RLC loadcells have European Approval for use in Hazardous Areas when used with METTLER TOLEDO Intrinsically safe instrumentation.

METTLER TOLEDO
Weigh Modules

Call or e-mail METTLER TOLEDO for a copy of the "Do-It-Yourself Guide to Building Tank Scales" and the "Weigh Module Systems Handbook." You'll become acquainted with the full line of METTLER TOLEDO Weigh Modules for all your static, dynamic and tension weighing applications.

Tel: (800) 786-0038
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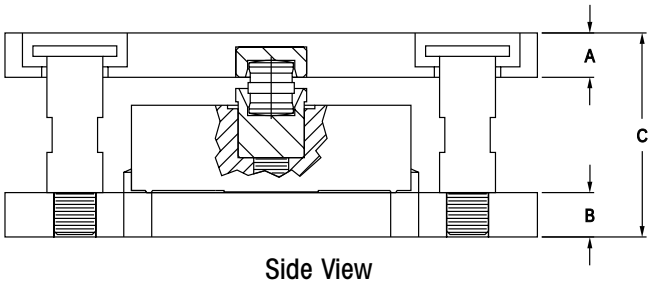
Load Cell Specifications

Load cell capacity	250 Kg	500 Kg	1000 Kg	2000 Kg	3500 Kg	5000 Kg
Model number	RLC					
Excit. volt. (VDC or VAC rms)	30 max					
Rated output (mV/V)	2.0 ±0.1mV/V (1.75 ± 0.1mV/V for 250 Kg)					
Input resistance (Ohms)	1110 ±50 (1100 ± 50Ω for 250 Kg)					
Output resistance (Ohms)	1025 ±25 (1025 ± 50Ω for 250 Kg)					
Zero balance (mV/V)	±1.0% of rated output (± 1.5% of rated output for 250 Kg)					
Combined error (Rated Output)	≤± 0.023 (C3)			≤± 0.0115 (C6)		
Creep in 20 min. (Rated Output)	≤± 0.0053 (C3)			≤± 0.0026 (C6)		
Temp. comp. range	-10 to + 40°C					
Safe operating range	-30 to + 70°C					
Deflection @ rated capacity	0.10 ± 0.02mm					
Standard cable length	5m (16ft)					
Material	17-4 Stainless Steel					
Wiring & gage cavity seal type	Hermetically Sealed IP68					
Certificate number	(NTEP) 00-124			(OIML) PTB D09-00.08		
Accuracy class	Class III NTEP			C3 or C6 OIML*		
Nmax multiple load cell	5000d NTEP			3000d or 6000d OIML*		
Min. dead load	0					
Safe overload (%FSO)	150					
Safe side load (%FSO)	100					

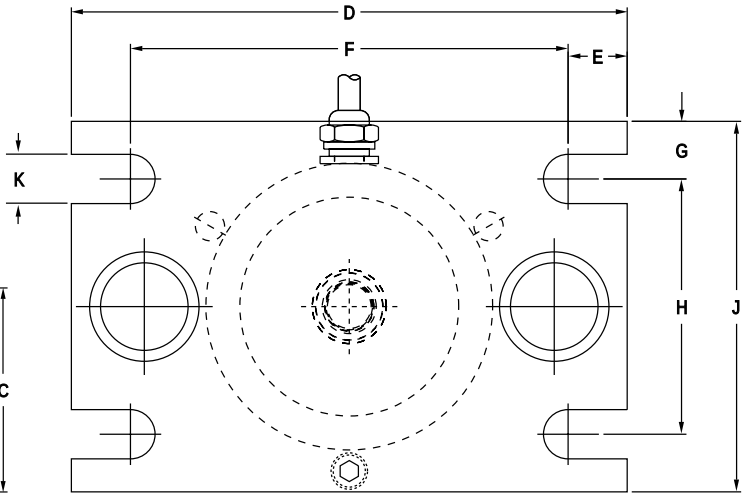
* 250 Kg and 500 Kg cell not available in C6 OIML.

RINGMOUNT™ Dimensions

Capacity	250 - 5000 Kg	
Unit of Measure	in	mm
A	0.50	12.7
B	0.50	12.7
C	2.3	58.4
D	6.0	152.4
E	0.64	16.2
F	4.72	120.0
G	0.62	15.8
H	2.75	70.0
J	4.0	101.6
K	0.53	13.5



Side View



Plan View

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www.mt.com

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