



Force Limited Vibration Testing System

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PCB Piezotronics- Inc is uniquely positioned in sensor industry to satisfy a wide range of applications in research, test, measurement and monitoring.

SSPL - Structural Solutions Private Limited exclusively represents PCB Piezotronics- Inc., U.S.A in India Structural Solutions Private Limited is a professional engineering company engaged in offering high end technology intensive products and system solutions to Indian industry.

Key Benefits

- Minimizes Over-testing
- Reduces Risk of Damage to Critical Structures
- Measures Summed Forces
- Measures Force Differences (Moments)
- Simplifies and Expedites the Test Process
- Convenient and Easy to implement



260 & 261 Series

Due to the high cost, long development times, and uniqueness of sophisticated aerospace and other high-tech equipment, it has become imperative to implement techniques that ensure the safety of such items during vibration qualification testing.

Conventional control using acceleration has been shown to cause significant over-testing that may result in damage to the unit under test (UUT). In force limited vibration testing, the total input force to the UUT is measured and controlled, thereby limiting the “quasi-static” acceleration of the center-of-gravity and ensuring the integrity of the equipment.

With force limited vibration testing, the force measurement signal is used in the vibration shaker’s feedback control loop. This signal is compared to established force limits in the controller. At frequencies where the measured force exceeds the limit (at high Q resonances), the controller’s output signal is “notched”. By reducing the input to the shaker at these frequencies, the reaction force between the test fixture and structure is maintained within specified limits.

Force Limited Vibration Testing System

3-Component Force Rings



- Measure 3-Orthogonal Forces Simultaneously
- Stainless Steel Construction
- Hermetically Sealed
- Choice of ICP® or Charge Version

3-Component Force Links



- Easy flange mounting
- Fixed preloaded assembly
- Measures 3 orthogonal (Fx, Fy, Fz)
- ICP & charge models
- English & metric models

Signal Conditioning System Components



Model 443B102
Dual-Mode Amplifier Module



Model 070A15
Summing Block for Charge Mode Sensors



Model 070M70
Charge Summation Node Module



Model 070M69
Computational Signal Conditioner



Model 070M90
Summing Amplifier for ICP Sensors

Structural Solutions Private Limited

Head Office: 3-6-271, 4th Floor Sudheer Tapani Towers, Himayath Nagar,
Hyderabad-500 029

Phone: +91-40-2322 2380 /81 / 82 /83

Email : sales@stsols.com, URL : www.stsols.com