

MODELS 9155D-600 & 9155D-650

VELOCITY SENSOR OPTIONS

- Perform velocity sensor calibration and verification frequency sweeps
- Easy-to-use software GUI automates data acquisition
- Sweeps performed at user-defined frequencies
- Applies pass/fail criteria for nominal sensitivity and frequency response
- Results reported in English or Metric units
- 9155D-650 adds hardware to measure 4-20 mA current loop velocity sensors

TYPICAL APPLICATIONS

- In-house calibration of vibration instrumentation

FOR CALIBRATION SYSTEM MODEL 9155

The Velocity Option 9155D-600 of the 9155D Calibration System enables the calibration and verification of velocity sensors, such as moving coil type. The 9155D-650 option adds hardware and software to calibrate 4-20 mA current loop sensors. 9155D-600 option is included with 9155D-650.

The reference vibration measurement is measured with a typical quartz ICP® reference accelerometer. The reference accelerometer output is converted to velocity for comparison against the SUT (Sensor Under Test) measurement.

9155 customers who use the software with accelerometers will find that the velocity sensor interface will be identical. It has the same experience starting at sensor setup, through data acquisition, and finally report generation.

The 9155D-600 and 9155D-650 options add velocity and 4-20 mA current loop to the list of supported SUT types for 9155: high frequency vibration acceleration, low frequency (0.1 Hz) vibration acceleration, shock acceleration, dynamic pressure, acoustic microphones, and visual output (vibration meters). These calibrations are all performed according to appropriate international standards defined by ISO, IEC, and ANSI. Also, reports are automatically generated that fulfill the requirements of ISO 17025.

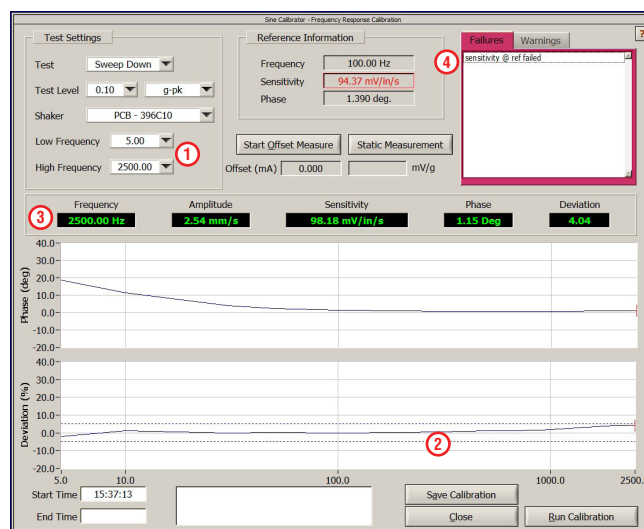
9155 SYSTEM OPTIONS

9155D-100	19" Rack Integration. Approx. 36.5 in H x 21.75 in W x 26 in D [93 cm x 55 cm x 66 cm]. Integrates components in 19" rack.
9155D-120	Shaker Mount. Provides wood pedestal to support calibration shaker. Requires user to fill with sand (not included).
9155D-160	Tool Kit. Includes torque wrench, screwdrivers, crescent wrenches, toolbox, etc.
9155D-350	Calibration Label Printing. Provides automatic calibration label printing using a Zebra thermal transfer label printer.
9155D-400	TEDS Sensor Support. Provides for automatic update of TEDS sensors. Requires 9155D-443 option.
9155D-442	Basic ICP Signal Conditioning. Adds signal conditioner for ICP and charge mode sensors.
9155D-443	Dual-mode Charge Amplifier. Computer control and automated switching between ICP and charge mode sensors.
9155D-445	Capacitive Sensor Signal Conditioning. Adds signal conditioner for capacitive sensors.
9155D-478	Piezoresistive Signal Conditioning. Adds support for piezoresistive sensors. Includes PCB 478A30 signal conditioner.
9155D-501	Linearity. Provides for multipoint sensor linearity checks via sinusoidal vibration up to 40 g.
9155D-525	Shock Calibration. Provides for verification of shock accelerometers from 20 g to 10 000 g
9155D-550	Resonance Check. Provides for resonance check of accelerometers up to 50 kHz.
9155D-575	Laser Primary Calibration. Adds primary calibration capability as specified in ISO 16063-11.
9155D-961	Hammer Calibration. Allows calibration of instrumented impact hammers, includes 9961C cal fixture
9155D-771	Low Frequency (0.5 Hz – 500 Hz). Long stroke shaker with SmartStroke™ technology and accelerometer reference sensor.
9155D-779	Low Frequency (0.1 Hz – 500 Hz). Long stroke shaker with SmartStroke™ technology, accelerometer and optical reference sensors.
9155D-830	K394B30 Air Bearing Shaker. Adds precision air-bearing shaker 5 Hz – 15 kHz.
9155D-831	K394B31 Air Bearing Shaker. Adds precision high-frequency air-bearing shaker 5 Hz – 20 kHz.
9155D-875	High Payload Calibration Shaker. Offers a useable frequency range of 5Hz to 10kHz for heavy payload transducers.
9155D-901	Environmental Monitoring Option. Includes calibrated external temperature, humidity and pressure gauge.
9155D-903	Low Pressure. Step function pulse calibrator to dynamically calibrate pressure transducers up to 150 psi (1 MPa).
9155D-905	Ultra High Pressure. For dynamic pressure measurements up to 80 000 psi (550 MPa).
9155D-907	Medium Pressure. Aronson step pressure calibrator for dynamic pressure calibrations up to 1000 psi (6.9 MPa).
9155D-910	Acoustic Microphones. Comparison calibration of microphones per 61094-S. Software option.
9155D-913	High Pressure. Impulse calibrator for dynamic pressure calibrations up to 15 000 psi (100 MPa).

VELOCITY OPTION

The 9155D-600 Velocity option is a software-only option available with the 9155 Accelerometer Calibration Workstation System. The software option allows for measurement of velocity sensor performance across a specified frequency or amplitude range at user-defined test points, dependent upon allowable test frequencies for the given shaker. The measurements are limited by the actuator hardware (i.e. the shaker, amplifier, etc.) and the specifications listed below are achievable with the indicated hardware only.

9155-600 Software



1. User-defined test frequencies
2. Easy-to-read graphical display of results
3. Cursor control shows point-by-point results
4. Pass/Fail automatically determined based on sensor specification



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The Modal Shop, Inc. offers structural vibration and acoustic sensing systems and services for various applications in design and test laboratories as well as manufacturing plants. An extensive sound and vibration rental program, precision calibration systems, and both modal and vibration shakers are designed to simplify test phases. Non Destructive Testing Systems help manufacturers provide 100% quality inspection of metal components. The Modal Shop, Inc. is a subsidiary of PCB Piezotronics, Inc., and PCB® is a wholly owned subsidiary of MTS Systems Corporation.

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