

Model Number

K9140D10

# PORTABLE VIBRATION CALIBRATION SYSTEM

Revision: B

ECN#:

## Components

C9110D	Portable Vibration Calibrator <sup>[1]</sup>
9155D-Laptop	Windows Laptop PC with pre-installed TMS 9155-PVC software, and MS Office.
9140-SW	TMS 9155 software dedicated for direct connection to C9110D via USB
9100-CBL00	TMS Data Transfer Cable. USB-A connector to USB-A connector. <sup>[2]</sup>
353B04	Verification Accelerometer
003C03	10-32 to BNC cable
9101C	Mounting Accessories Kit

## Functionality

Sensor Types	Acceleration, Velocity, Displacement
Sensor Operation Types	ICP (IEPE), Charge
Additional Sensor Operation Types	Voltage <sup>[3]</sup> , Differential Charge <sup>[3]</sup> , Piezoresistive <sup>[3]</sup> , Capacitive <sup>[3]</sup> , Visual Output
Frequency Range	5 to 10,000 Hz [Note: 100 gram payload]
Test Types	Frequency Sweep, Amplitude Sweep (aka linearity), Sensitivity @ Reference Frequency
Calibration Data Management	Microsoft Access
Calibration Certificate Management	Microsoft Excel
Measurement Units Supported	Metric, English
Standards Compliance	ISO 16063-21 (2003)
Max Frequency Points	200
Max Pass/Fail Criteria (per Axis)	8: 6 Frequency Response 1 Sensitivity @ Reference Frequency 1 Non-linearity

## Performance

Measurement Uncertainty (k=2) <sup>[4][5]</sup>	$5 \text{ Hz} \leq f \leq 10 \text{ Hz}; \pm 4\%$ $10 \text{ Hz} < f \leq 30 \text{ Hz}; \pm 3\%$ $30 \text{ Hz} < f < 100 \text{ Hz}; \pm 1.5\%$ $f = 100 \text{ Hz}; 1.5\%$ $100 \text{ Hz} < f \leq 2 \text{ kHz}; 1.5\%$ $2 \text{ kHz} < f \leq 10 \text{ kHz}; 4\%$
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### NOTES:

- [1] Requires firmware 7.0 or higher for compatibility.
- [2] Non-TMS cables that may be available from retail suppliers present a danger that could result in hardware level damage to the USB port on PC and/or PVC. Always use TMS 9100-USB00.
- [3] Signal conditioning for these Sensor Operation Types are not included. However, they are supported in software.
- [4] See TMS document QS-P015 for most current values.
- [5] f denotes test frequency.

## Optional Accessories

9100-PS01	Power supply / charger for Portable Vibration Calibrator, universal 100-240 V, 50/60 Hz.
9100-PPCBL01	Cabling for connection of Bently Nevada 3300 XL proximitors to portable vibration calibrator or volt meter.
9100-MPPA01	Proximity probe adaptor kit, supports probes with common case threads ranging from M6 to 3/8". Includes metric micrometer and 9100-PPA02 nickel plated 4140 steel target.
9100-PPA01	Proximity probe adaptor kit, supports common case threads from 5 mm to 10 mm size probes, including common imperial threads. Includes brackets for securing common probes. Includes micrometer scaled in mils and 9100-PPA02.
9100-PPASH	Proximity probe mounting adaptor kit for probes installed inside a 1/2" diameter housing, including all 8 mm designs.

## Supplied Accessories (Included in 9101C)

081A08	10-32 UNF Mounting Stud
081B20	1/4-28 UNF Mounting Stud
PVC-HTMNT01	Used with 3 and 4 hole high temperature sensors (Imperial Threads)
PVC-HTMNT02	Used with 3 and 4 hole high temperature sensors (Metric Threads)
PVC-MNT01	M8 x 1.25 Female Mounting Pad
PVC-MNT02	M8 x 1.0 Female Mounting Pad
081M165	M8 x 1.0 Mounting Stud
080A109	Petro Wax
080A80	Cyanoacrylate Adhesive
080A90	Quick Bond Adhesive Gel
081A27	5-40 Mounting Stud
9155-MNT32	10-32 UNF Female Mounting Stud
9155-MNT05	5-40 UNF Female Mounting Pad
9155-MNT07	Adhesive Mounting Pad
Silicone Gap Filling Mounting Grease, and Syringe	
Strain Relief Cable Adhesive	
Screwdriver	

All specifications are at room temperature unless otherwise specified.  
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 In the interest of constant product improvement, specifications may change without notice.



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