Model Number 9210D	LOW FREQUENCY PORTABLE VIBRATION CALIBRATOR	Revision: B ECN #:

GENERAL

Frequency Range (operating, 100 gram payload)	0.7 Hz – 2 kHz	42 – 120k CPM
Max Acceleration Amplitude (100 Hz, no payload)	2 g pk	19.6 m/s² pk
Max Acceleration Velocity (10Hz, no payload)	12 in/s pk	305 mm/s pk
Max Acceleration Displacement (1 Hz, no payload)	200 mils pk – pk	5 mm pk – pk
Maximum Payload[1]	800 grams	

ACCURACY OF READOUT

Acceleration and Velocity (2 Hz to 2 kHz) [2] [7]	±3%
Acceleration and Velocity (0.7 Hz to 2 kHz) [2] [7]	±10%
Displacement (3 Hz to 15 Hz)[3]	±3%
Displacement (1 Hz to 150 Hz)[3]	±10%
Displacement (0.7 Hz to 150 Hz)[3]	±2 dB
Amplitude Linearity (100 gram payload, 100 Hz)	< 1% up to 2 g pk
Waveform Distortion (1 Hz to 5 Hz)	Typically < 15%
Waveform Distortion (>5 Hz to 20 Hz)	Typically < 10%
Waveform Distortion (>20 Hz to 2 kHz)	Typically < 7%

UNITS OF READOUT

Acceleration (peak and RMS)	g	m/s²
Velocity (peak and RMS)	in/s	mm/s
Displacement (peak to peak)	mils	µm
Frequency	Hz	PM
Test Sensor Sensitivity	mV/EU[4]	

POWER REQUIREMENTS

Internal Battery (sealed solid gel lead acid)	12 VDC, 4 amp hours
AC Power (for recharging battery)	110 – 240 VAC, 50 - 60 Hz
Input Power Rating from charger	18 VDC, 1 A
Operating Battery Life[5]	
100 gram payload, 100 Hz 1 g p	14 hours
100 gram payload, 1 Hz 0.02 g pk	7 hours

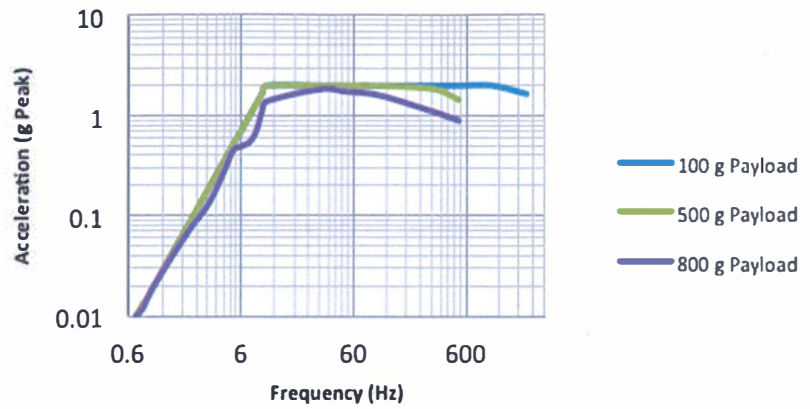
INPUT/OUTPUT

Test Sensor In	Voltage or ICP®[6]
Test Sensor Input Voltage Range	20 mV – 10 V AC pk-pk
Bias Fault Indication (ICP® Sensors)	Yes
External Source In (Max)	1 VAC RMS
Monitor Reference Out	100 mV/g (nominal) - Buffered internal reference output

NOTES

[1] Operating range reduced at higher payloads. Reference manual for full details.
[2] Measured with 30 gram quartz reference accelerometer.
[3] Measured with laser displacement interferometer.
[4] EU can be [g], [m/s²], [in/s], [mm/s], [mils] or [µm].
[5] As shipped from factory in new condition.
[6] 5mA constant current excitation to ICP® (IEPE) sensor.
[7] Depending upon payload at higher frequencies tranverse motion may cause localized increased measurement uncertainty.

Maximum Acceleration vs. Frequency



PHYSICAL

Dimensions (H x W x D)	8.5 x 12 x 10 in	22 x 30.5 x 28 cm
Weight	18 lb	8.2 kg
Thread Size	¼-28	
Integral Armature Lock	Supplied	
Operating Temperature	32 °F – 122 °F	0 °C – 50 °C

SUPPLIED ACCESSORIES

Accessory Pouch
Shipping Lock
Power Supply and Plug Adaptors: **Model 9100-PS01**
¼-28 to ¼-28 Mounting Stud: **Model 081B20**
10-32 to ¼-28 Mounting Stud: **Model 081A08**
USB Flash Drive with Calibration Report Generation Worksheet: **Model 9110-USB**
M8 x 1.25 M to ¼-28 M Mounting Stud **Model M081A63**
M8 x 1.25 F to ¼-28 M Mounting Pad **Model PVC-MNT01**
M8 x 1 M to ¼-28 M Mounting Stud **Modal 081M165**
M8 x 1 F to ¼-28 M Mounting Pad **Model PVC-MNT02**

(OPTIONAL): Proximity probe adaptor kit, supports probes with common case threads ranging from M6 to 3/8 in. Includes Mitutoyo micrometer and nickel-plated 4140 steel target.

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.

CE

Project Engineer:	Product Manager:	Mkt Team Leader:	Spec Number:
	MRS	CAO	PS-0124
Date: 10/28/19	Date: 10/28/19	Date 10/28/19	

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