

# ReferenceMate portable reference source

## REF2510 industrial monitoring kits



REF2500



Front panel controls



REF2500R

### Key features

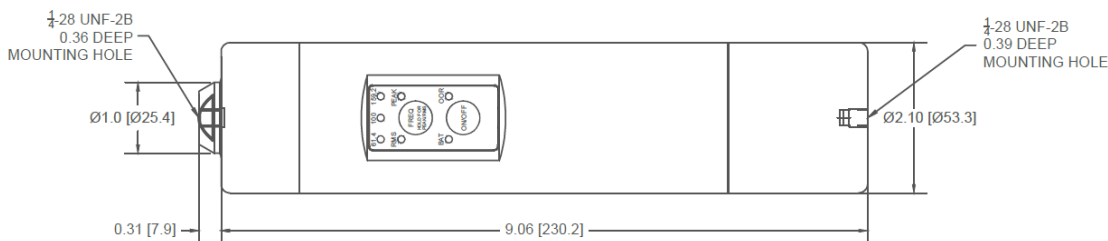
- 1 g selectable reference source (61.4, 100.0 or 159.2 Hz)
- Crossover frequencies designed for easy velocity verification
- Verify and adjust entire systems from transducers to measurement equipment
- User selections retained on power off
- Test vibration sensors weighing up to 250 g
- Accessories for every application
- Optional cube for checking triaxial sensor outputs simultaneously
- Standard AA battery operation for field use
- Optional rugged boot offers protection in harsh plant environments

The ReferenceMate portable vibration reference source enables users in the field to easily verify sensor performance and the integrity of the cabling between the sensor and the online system. A built-in reference accelerometer assures that a 1 g test level is maintained for sensors weighing up to 250 grams.

Frequency of operation and measurement type (peak/RMS) are push button selected.

- 61.4 Hz for imperial measurements, where 1 g is equal to 1 inch per second (ips), for verification of acceleration and velocity
- 100.0 Hz to confirm sensor calibration value
- 159.2 Hz for metric measurements, where 1 g is equal to 9.81 m/sec<sup>2</sup> and 9.81 mm/sec

LEDs notify the user when battery condition falls below operational levels or if the unit is overloaded. For calibration verification, reference test points are provided to verify the output of the internal sensor.



Note: Due to continuous process improvement, specifications are subject to change without notice. This document is cleared for public release.

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Wilcoxon Sensing Technologies  
An Amphenol Company

### Certifications



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### SPECIFICATIONS

Operating frequency, $\pm 1\%$	61.4 Hz	100.0 Hz	159.2 Hz
Acceleration output <sup>1</sup>	1.0 g (9.81 m/s <sup>2</sup> )	1.0 g (9.81 m/s <sup>2</sup> )	1.0 g (9.81 m/s <sup>2</sup> )
Velocity output <sup>1</sup>	1.0 ips (25.4 mm/s)	0.61 ips (15.6 mm/s)	0.39 ips (9.8 mm/s)
Displacement output <sup>1</sup>	2.6 mils (65.9 $\mu$ m)	0.98 mils (24.8 $\mu$ m)	0.39 mils (9.8 $\mu$ m)
Operating cycles, 250 gram load <sup>2</sup>	1,280	320	240
Mounting thread	1/4-28 female		
Mounting torque, max	10 in-lb (112 N-cm)		
Distortion, 100-250 gram load	$\leq 3\%$		
Load, min - max	none - 8.8 oz (250 grams)		
Automatic switch off time	approximately 90 $\pm$ 10 sec defeatable		
Temperature range	Operating	+15 to +130° F (–10 to +55° C)	
	Storage	–40 to +185° F (–40 to +85° C)	
Ramp-up time	$\leq 3$ sec		
Internal battery	4x AA alkaline batteries		
DC power	6 VDC $\pm 5\%$ , 1A, center positive		
Shaker dimensions	diameter: 2.10 in (5.33 cm), height: 9.25 in (23.5 cm)		
Weight, with batteries	32 oz (900 grams)		
Case material	6061 aluminum, black hard-coat anodized		
IP rating	IP54		
Boot material (REF2510R)	thermoplastic rubber		

### Ordering information

REF2510 industrial kit		REF2510R rugged industrial kit	
Handheld shaker	REF2500	Handheld shaker w/ rugged boot	REF2500R
AA batteries (4x)	A69203	AA batteries (4x)	A69203
Calibration sheet	94511	Calibration sheet	94511
Belt clip	A61164	Belt clip	A61164
Wrench	A61088	Wrench	A61088
Carrying case with foam insert	80315-01/80311-01	Carrying case with foam insert	80315-01/80311-02
1/4-28 to 1/4-28 mounting stud	SF6	1/4-28 to 1/4-28 mounting stud	SF6

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### Applications

- Industrial and manufacturing equipment
- Rotating machinery
- Online monitoring systems
- Cable integrity checks

Notes: <sup>1</sup> User selectable (peak or RMS)

<sup>2</sup> Using supplied alkaline batteries

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### Optional accessories

#### REF001 universal mounting kit

1/4-28 to 10-32 adaptor stud	SF3
1/4-28 to 8-32 adaptor plate for 997 and 712 sensors	13249-01
1/4-28 to 10-32 adaptor plate	13249-02
90° adaptor plate for 993 series sensors	13267-01

#### REF002 metric mounting kit

1/4-28 to M6 adaptor stud	SF6M-1
1/4-28 to M8 adaptor stud	SF6M
1/4-28 to M4 adaptor plate for 997 and 712 sensors	13249-03
1/4-28 to M6 adaptor plate for captive screw sensors	13249-04
1/4-28 to M8 adaptor plate for captive screw sensors	13249-05

Universal AC adaptor, international compatibility REF003

2 pole magnet MD055

Triaxial accelerometer angled adaptor TAA01

### Contact

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### Carrying case with portable shaker

