

Accelerometer Calibrator

Type 8921...

Reference Shaker

The 8921... portable shaker is a small, self contained, battery powered vibration exciter specifically designed to verify/calibrate the sensitivity of accelerometers in a field environment.

- Test measurement system integrity
- Convenient, self-contained and portable
- Rechargeable battery
- Automatic shut off
- Tests sensors up to 300 grams of weight
- Conforming to CE

Description

The Type 8921... provides an accurate controlled vibration level to verify the sensitivity of vibration sensors or the complete measuring system. The internal control and excitation system provides a constant, exact frequency while a closed loop control maintains a constant amplitude independent of the mass of the test article. Should the test article exceed the capacity of the shaker, the unit provides an audible and visual warning to the operator. A self contained, rechargeable battery can power the shaker up to approximately four hours between recharging. Operator convenience and measurement confidence are of primary importance. The unit is portable, weighing 4.5 pounds. Front panel indicators provide information as to the condition of the internal battery. An automatic shut-off circuit switches off the power automatically after 10 minutes of continuous operation. The 8921... has sufficient force to test every sensor from the smallest laboratory accelerometer to large industrial sensors.

Application

The Type 8921... Reference Shaker can be used to confirm the sensitivity of acceleration, velocity and displacement sensors. It further provides convenient and accurate means of testing the integrity of the vibration measurement system from end to end. The unit is rugged to withstand factory environments and provide years of reliable operation in the laboratory.



Technical Data

Type	Unit	8921
Reference Frequency ±0.05%	Hz (rad/s)	159.2 (1000)
Amplitude:		
Acceleration rms, ±3%	g (m/s ²)	1.019 (10)
Velocity rms, ±3%	in/s	0.39
Displacement rms, ±3%	mils	0.39
Maximum Load	gram	300
Temperature Range Operating	°F	50 ... 104
Operating Time w/ 100 gram load	hours	4 ⁽¹⁾
Switches off automatically after	min	10
Supply		built-in battery, rechargeable
Weight	lb	4.5
Battery Charger		
Input Voltage	VAC	115/230
	Hz	48 ... 62
Output Voltage	VDC	12
Output Current	mA	300
Dimensions (H x W x D)	in	3 x 4.2 x 7

(1) The 8921 will operate at AC power with the battery fully charged

$$1 \text{ g} = 9.80665 \text{ m/s}^2, 1 \text{ inch} = 25.4 \text{ mm}, 1 \text{ gram} = 0.03527 \text{ oz}, 1 \text{ lbf-in} = 0.113 \text{ Nm}$$

Ordering Key

Power		8921 <input type="checkbox"/>
230 VAC, with power converter	-	↑
150 VAC, with power converter	Y26	

Accessories Included

	Type
• Mounting stud, 10-32 to M5	8451
• Mounting stud, 1/4-28 to M5	8453
• (8921Y26) AC/power converter, 115 VAC	5754
• (8921) AC/power converter, 230 VAC	5764

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