

# SVR101

## SPECTRAL VIBRATION DATA LOGGER



### Features

- Records vibration frequencies, peak acceleration
- Real-time FFT
- User settable trigger levels
- High speed download
- Programmable start time
- Built-in accelerometers

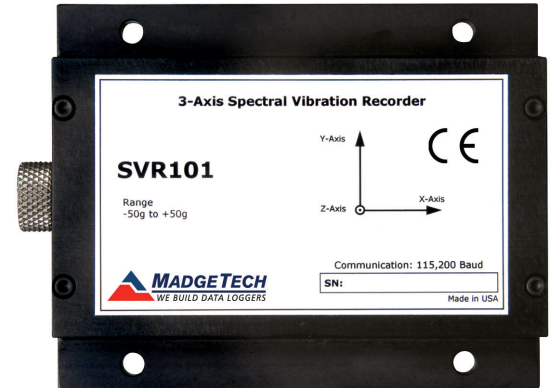
### Applications

- Machinery failure detection
- Detect mechanical resonances
- Endurance testing
- Wind resonance on structures and supports
- Vehicle vibration
- Race Car diagnostics
- Materials research
- Vehicle Vibration

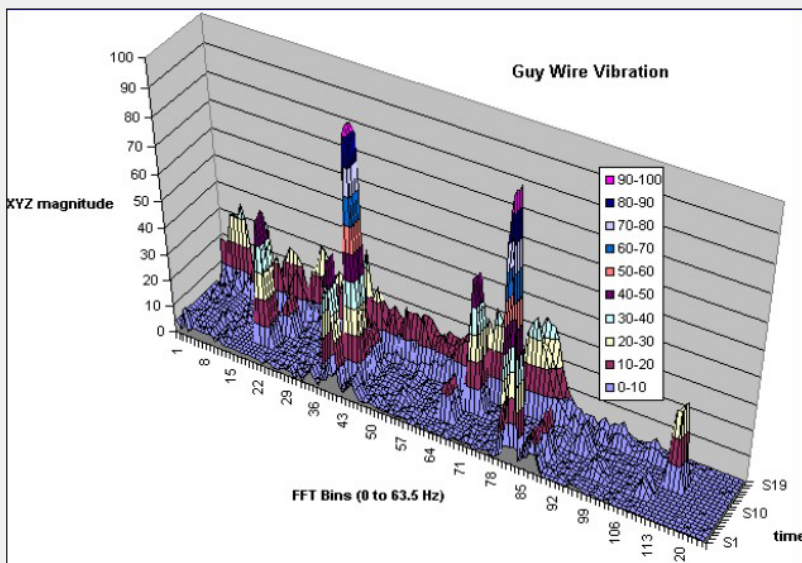
The SVR101 is a self-contained data logger engineered to record accelerations for spectral analysis of vibration and peaks. This device is ideal for endurance testing, machinery failure detection, and vehicle vibration monitoring.

The SVR101 records and time-tags 3-axis vibrations and peaks to provide a history of shock/vibration conditions. The device measures and computes real-time spectral data using an FFT (Fast Fourier Transform) from 0 to 128 Hertz. To make efficient use of memory, the SVR101 only takes data when the (user preset) trigger level is exceeded. The minimum sampling rate is 2 seconds and the device can display peak X, Y and Z shock data, vector sum for data evaluated, up to 4 hours.

The SVR101 is a critical instrument for quantifying and understanding vibrations and shocks in many applications. From transportation to automotive design, motor failure detection to mechanical resonance, the SVR101 can go to remote places, operate from battery, and store the data in non-volatile memory.



## MADGETECH DATA LOGGER SOFTWARE



### Software Features:

The guy wire vibration graph was exported to Excel® and made into a 3-D graph.

The Windows®-based software package allows the user to effortlessly collect, display and analyze data. A variety of powerful tools allow you to examine, export, and print professional looking data with just a click of the mouse.

Click [MudgeTech Software](#) for more information or to download the software.

# SVR101 SPECIFICATIONS\*

\*SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE. SPECIFIC WARRANTY REMEDY LIMITATIONS APPLY. GO TO WWW.MADGETECH.CO.NZ FOR DETAILS.

<b>Acceleration Sensor:</b>	MEMS Semiconductor
<b>Acceleration Range:</b>	±50 g
<b>Acceleration Resolution:</b>	0.05 g
<b>Calibrated Accuracy:</b>	±1 g
<b>Sampling Rate:</b>	256Hz (decimated to 128Hz)
<b>FFT Range:</b>	0 to 128 (1Hz bins)
<b>FFT Window Period:</b>	2 seconds
<b>FFT Sample Period:</b>	2 seconds to 14,400 seconds (4 hrs)
<b>Memory:</b>	16Mbit (3,971 samples)
<b>Reading Rate:</b>	2 seconds up to 4 hours
<b>Start Modes:</b>	Software programmable immediate start or delay start up to 7 days in advance

\*Note: SVR101 is only MadgeTech 2 compatible.

<b>Real Time Recording:</b>	May be used with PC to monitor and record instantaneous acceleration in real time
<b>Calibration:</b>	Digital calibration through software
<b>Calibration Date:</b>	Automatically recorded within device
<b>Battery Type:</b>	9V battery; <b>user replaceable</b>
<b>Battery Life:</b>	60 hours typical with 9V lithium battery
<b>Power Consumption:</b>	25mA (average) recording, <40µA idle @ 25 °C
<b>Data Format:</b>	Time stamped frequency bins, peak acceleration, average and peak vector sum
<b>Time Accuracy:</b>	±1 minute/month (at 20°C, RS232 port not in use)
<b>Computer Interface:</b>	PC serial or USB, 115,200 baud
<b>*Software:</b>	XP SP3/Vista/Windows 7
<b>Operating Environment:</b>	-20 °C to +60 °C, 0 to 95 %RH non-condensing
<b>Dimensions:</b>	1.0" x 3.5" x 4.4" (26 mm x 89 mm x 112 mm)
<b>Weight:</b>	12 oz (340 g)
<b>Materials:</b>	Anodized Aluminum
<b>Approvals:</b>	CE

**BATTERY WARNING:** DISCARD USED BATTERY PROMPTLY. KEEP OUT OF REACH OF CHILDREN. DO NOT DISPOSE OF IN FIRE, RECHARGE, PUT IN BACKWARDS, DISASSEMBLE, OR MIX WITH OTHER BATTERY TYPES. MAY EXPLODE, FLAME OR LEAK AND CAUSE PERSONAL INJURY.

## ORDERING INFORMATION

MODEL	DESCRIPTION
SVR101	±50g Spectral Vibration Recorder
IFC110	Software, manual and RS232 interface cable
IFC200	Software, manual and USB interface cable
NIST	NIST Calibration Certificate
U9VL-J	Replacement battery for SVR101

**ASK ABOUT OUR OTHER DATA LOGGERS**

- Temperature
- Humidity
- Pressure
- pH
- Level
- Shock
- LCD Display
- Pulse/Event/State
- Current
- Voltage
- Wireless
- Intrinsically Safe
- Spectral Vibration
- Motion

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