

S4-R100D40

**S4 Shock & Vibration Sensor**

**\$3,500.00**

Aluminum 7075  
 Piezoresistive Accelerometer: ± 100g  
 Digital Capacitive Accelerometer: ± 40g  
 Battery: 250 mAh  
 Storage: 8 GB



**S4-R100D40**

The S4-R100D40 is a shock & vibration recorder with a high performance piezoresistive accelerometer, a secondary capacitive accelerometer and other environmental sensors. This model is most popular for general purpose shock & vibration testing. Its aluminum enclosure improves reliability in harsh environments and widens its frequency response.

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**Product Features**

- Convenient**

  - Standalone measurement system with sensors, storage & rechargeable battery
  - Handheld form factor
  - Setup in minutes over USB interface
- Adaptable**

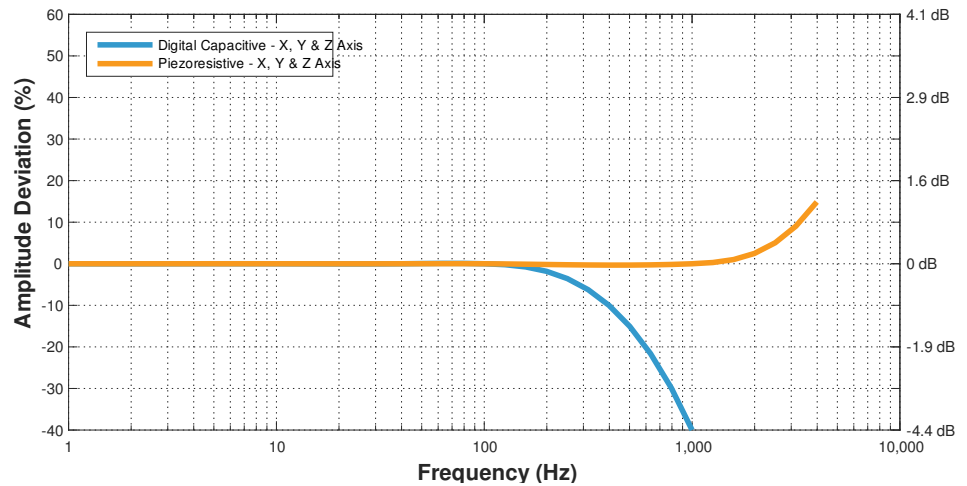
  - Multiple accelerometers for dynamic range
  - Many additional embedded sensors into single system
  - User-programmable wake-up conditions and sample rates
- Reliable**

  - Trusted in harsh environments by over 2,000 customers & the US Navy
  - Calibrated with NIST Traceable Accelerometer
  - Storage capacity for billions of data points

**Accelerometer Specifications**

Accelerometer Type	Range	Sampling Rate	Bandwidth	Noise	Resolution
Piezoresistive	± 100g	20,000 Hz	0 to 2,000 Hz	< 0.10 gRMS	0.015 g
Digital Capacitive	± 40g	4,000 Hz	0 to 300 Hz	< 0.01 gRMS	0.00008 g

## Frequency Response Plot



## Additional Sensor Specifications

Sensor	Measurement Range	Resolution	Sampling Rate
Gyroscope	2000°/s	0.06 °/s	0 (off) to 200 Hz
Magnetometer	± 1300 μT	0.3 μT	0 (off) to 10 Hz
Temperature	-40 to 85 °C	0.01 °C	0 (off) to 10 Hz
Pressure	1 to 200 kPa	1.6 Pa	0 (off) to 10 Hz
Humidity	0 to 100 %RH	0.04% RH	0 (off) to 10 Hz
Light	0 to > 20 uV	<100 mlx	0 (off) to 4 Hz

## Environmental Specifications

Parameter	Range	Notes
Operating Temperature	-10°C to 80°C (14°F to 176°F)	
Recommended Storage Temperature	15°C to 30°C (59°F to 86°F)	Recharging Temperature 0°C to 45°C (32°F to 113°F)
Humidity	0 to 95 %RH	Non-Condensing
Pressure	20 kPa to 110 kPa (2.9 psi to 16.0 psi)	Absolute Pressure
Shock Limit	>3,000 g	<a href="#">Refer to Shock Report (PDF)</a>
No Electric Field Susceptibility	2 MHz to 18 GHz @ 200 V/m	<a href="#">Refer to EMI Test Report (PDF)</a>
No Magnetic Field Susceptibility	30 Hz to 100 kHz	<a href="#">Refer to EMI Test Report (PDF)</a>

## Battery & Storage Performance

Battery performance is heavily dependent upon the device configuration (sensor sample rates and triggers), battery age (including charging cycles), and temperature. The following table provides the battery life and storage capacity