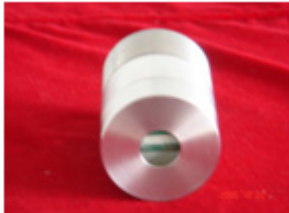
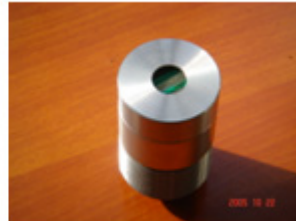


## Mini Ultra-High Shock Analog Recorder

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### DESCRIPTION

The SS-10 SERIES is a family of miniaturized, high shock, solid-state, 4-channel recorders designed to acquire transducer data in shock environments of up to 100,000 G's. The epoxy-encapsulated unit can be configured for a variety of transducer inputs to accommodate automotive crash

testing, blast testing, mining applications, weapon testing, or testing in hostile field environments. Battery is included in the recorder, Low power consumption allows instrumentation build-up weeks before the test and extends the time for data retrieval after the test. Data retrieval is accomplished using a personal computer. Software supplied with the recorder enables retrieval, storage, display, and printing of the data.

### FEATURES

- Small Size
- 1, 2, or 4 Analog Channels
- 12 Bit Resolution
- Low Power with 3.3 or 5 Volt Logic
- Battery is embedded in the recorder
- Single end or Differential Input
- 6-Pole Low Pass Filter
- High Sample Rate
- Pre-Trigger Data Retention
- Software Support
- Reusable
- Expandable Memory (to 256K Data Points)

Recorder Type Model 11 Model 12 Model 14

Number of Channels 1 2 4

Standby Current 80 Microamps 1 80 Microamps 1 80 Microamps 1

Data Acquisition Current 70 Milliamps1 70 Milliamps1 80 Milliamps1  
 Data Retention Current 80 Microamps1 80 Microamps1 80 Microamps1  
 1Typical current

**FACTORY SELECTABLE OPTIONS**

- Storage Capacity Expandable to 256K Data Points (512K bytes)
- Sample Rate / Filter Frequency (Limited Options)
- 3.3 Volt or 5.0 Volt Logic
- Pre-Trigger Memory Size (Limited Options)
- User Defined Package Shape

**SERIES 10**

Recorder Model	11	Model 12	Model 14
Sample Rate/Channel	250 KHz	1250 KHz	60 KHz
Low Pass Filter Bandwidth	100 KHz	55 KHz	30 KHz
Memory Size (Data Points)	128K	128K	128K
Pre Trigger Data/Channel	1819 Bytes	1934 Bytes	1988 Bytes
Resistors (Pull-Down)	220K	220K	220K
Logic (Volts)	3.3	3.3	3.3

**ELECTRICAL SPECIFICATIONS**

Amplifier Input .....Single end or Differential  
 Input Modes-----Pizoresistive ,ICP,Charge or Voltage  
 Low-Pass Filter Type..... 6-Pole Butterworth  
 Digitizer Amplitude Resolution..... 12 Bits  
 Storage Capacity.....64K Data Points (128K Bytes) or 256K Data Points  
 Triggers ..... 3.3 or 5 Volt  
 Supply Voltage..... 6 to 10 Volts  
 Supply Voltage for External Sensor..... 3.3 or 5.0 volts  
 Supply Current for External Sensor Per Channel..... 10 Milliamps (Maximum)

**PHYSICAL SPECIFICATIONS**

Temperature Range..... 0 C to 75 C  
 Length. .... 2.36" (60.0mm)  
 Diameter ..... 1.49" (38.0 mm)  
 Weight ..... 4 oz. (110 Grams)  
 Maximum Shock Level..... 100,000 G's

NOTE: The Recorder is fully epoxy-encapsulated with the exception of the input terminals and the output

PC Board connector. The outer shell is stainless steel.

## DATA RETRIEVAL

Software is supplied to retrieve, store, display, examine, and print data. The software requires a 386 based PC computer configured with a mouse, VGA graphics, a hard disk, a high density floppy, and a minimum of 2 Meg expanded memory. A PostScript laser printer is highly recommended for data printout. Data analysis software is available. Data can be retrieved through normal cable to connecting the recorder with PC directly .

## ULTRA-HIGH SHOCK RECORDER WITH SENSOR EMBEDDED

### Series 20



## ULTRA-HIGH SHOCK RECORDER

### Series 30



## Specification

1. Channels: 4
2. Sampling rate: 1 KHz
3. Memory: 128 K/Ch
4. A/D: 12 Bit
5. Recording time: 133 s