



# ULTRASHOCK-EB SPECIFICATIONS\*

\*SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE. SPECIFIC WARRANTY REMEDY LIMITATIONS APPLY. CALL 1-603-456-2011 OR GO TO WWW.MADGETECH.COM FOR DETAILS.

## TEMPERATURE

<b>Sensor:</b>	Semiconductor
<b>Range:</b>	-20 °C to +54 °C
<b>Resolution:</b>	0.1 °C
<b>Accuracy:</b>	±0.5 °C (0 °C to +50 °C)

## HUMIDITY

<b>Sensor:</b>	Capacitive Polymer
<b>Range:</b>	0 %RH to 95 %RH
<b>Resolution:</b>	0.1 %RH
<b>Calibrated Accuracy:</b>	±3 %RH (±2 %RH typical at 25 °C)
<b>Specified Accuracy Range:</b>	+10 °C to +40 °C; 10 %RH to 80 %RH

## PRESSURE

<b>Sensor:</b>	Semiconductor Strain Gage
<b>Range:</b>	0 PSIA to 30 PSIA
<b>Resolution:</b>	0.002 PSIA
<b>Calibrated Accuracy:</b>	±1.0 %FSR at 25 °C; ±0.2 % typical
<b>Specified Accuracy Range:</b>	0 PSIA to 30 PSIA, 25 °C

## SHOCK

<b>Accelerometer Type:</b>	MEMS Semiconductor			
<b>Acceleration Range (g):</b>	±5 g	±50 g	±100 g	±250 g
<b>Acceleration Resolution (g):</b>	0.01 g	0.05 g	0.1 g	0.2 g
<b>Calibrated Accuracy (g):</b>	±0.2 g	±1.0 g	±2.0 g	±4.0 g
<b>Absolute Max. Acceleration:</b>	250 g (all versions)			
<b>Sampling Rate:</b>	1.953 ms/512 Hz			
<b>Accelerometer Freq. Resp.:</b>	0 Hz to approx. 400 Hz			

<b>Memory:</b>	174,762 readings per channel
<b>Reading Rate:</b>	64 Hz to 5 minutes for shock, selectable in software. Temperature, pressure and humidity, approximately every 2 seconds at intervals faster than 2 seconds, otherwise sampled at the reading rate.
<b>Start Modes:</b>	Software programmable immediate start or delay start up to 180 days from PC launch.
<b>Password Protection:</b>	An optional password may be programmed into the device to restrict access to configuration options. Data may be read out without the password.
<b>Calibration:</b>	Digital calibration through software
<b>Calibration Date:</b>	Automatically recorded within device
<b>Battery Type:</b>	6 D-cell alkaline batteries, <b>user replaceable</b>
<b>Battery Life:</b>	60 days typical at 25 °C, 1 minute reading rate
<b>Data Format:</b>	Date and time stamped gravities (g and mg), temperature (°C, °F, K, °R), humidity (%RH, mg/ml water vapor concentration), pressure (PSIA, inHg, mmHg, bar, atm, Torr, Pa, kPa, MPa)
<b>Time Accuracy:</b>	±1 minute/month at 20 °C to 30 °C
<b>Computer Interface:</b>	USB (interface cable required); 115,200 baud
<b>Software:</b>	XP SP3/Vista/Windows 7/Windows 8
<b>Operating Environment:</b>	-20 °C to +54 °C, 0 %RH to 95 %RH (non-condensing)
<b>Dimensions:</b>	5.5 in x 5.4 in x 3.2 in (140 mm x 137 mm x 80 mm)
<b>Weight:</b>	80 oz (2.3 kg)
<b>Enclosure:</b>	Anodized aluminum
<b>Approvals:</b>	CE

**BATTERY WARNING:** DO NOT CONNECT IMPROPERLY, CHARGE OR DISPOSE OF IN FIRE, BATTERY MAY EXPLODE OR LEAK.

## ORDERING INFORMATION

MODEL	DESCRIPTION
ULTRASHOCK-5-EB	Temperature, Humidity, Pressure and ±5g Tri-Axial Shock Recorder
ULTRASHOCK-50-EB	Temperature, Humidity, Pressure and ±50g Tri-Axial Shock Recorder
ULTRASHOCK-100-EB	Temperature, Humidity, Pressure and ±100g Tri-Axial Shock Recorder
ULTRASHOCK-250-EB	Temperature, Humidity, Pressure and ±250g Tri-Axial Shock Recorder
IFC200	Software, manual and USB interface cable
Calibration Certificate	Calibration Certificate available for data logger
MN1300	Replacement battery for UltraShock-EB (6 required)

**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

For Quantity Discounts call 603-456-2011 or email [sales@madgetech.com](mailto:sales@madgetech.com)