# Auto*Blast*

**GROUND VIBRATION LOGGER**

## AutoBlast™

AutoBlast™ is a ground vibration monitoring and logging device. It can be used in various applications of Civil Engineering such as industrial vibration monitoring, ground transportation traffic vibration monitoring, construction site monitoring, noise, and vibration monitoring in a blasting zone. It is also useful in the fields of Earthquake Engineering for monitoring the structures of buildings, bridges, and dams.

Measurement is taken using a packet of velocity sensors (geophones) and Air Overpressure level using a microphone, storing the data into a built-in memory storage, which can be downloaded to a PC via Bluetooth. AutoBlast™ can be configured to perform a sensor check operation before monitoring starts to make sure the sensors are functioning properly.

Events are automatically recorded when the measurement level of the vibration noise exceeds a threshold value, and alarms can be raised. These can be auxiliary alarms (i.e., light signal or siren) as well as notifications sent by Email or SMS using the built-in modem.



**Bluetooth**

# AutoBlast

## Specifications

| | | |
|---|---|---|
| Vibration | Range | Up to 250 mm/s |
| | Resolution | 0.0077 mm/s |
| | Accuracy | ± 5% or ±0.5 mm/s |
| | Frequency range | 1 to 180 Hz |
| | Acceleration | Calculated from captured waveform |
| | Trigger levels | 0.13 to 250 mm/s |
| Air Overpressure Monitoring | Weighting scales | ISEE Linear |
| | Range | 88 to 145 dB (500 Pa peak) |
| | Resolution | 0.0152 Pa |
| | Frequency Response | 2 to 250 Hz |
| | Accuracy | ± 10% or ± 1dB |
| Trigger level | | 100 to 145 dB in steps of 0.1dB |
| Sampling rate | | 50, 100, 200, 400, 500, 800, 1000, 1600, 2000 samples/sec for each channel |
| Real-time Clock (RTC) | | Built-in clock with backup battery |
| Storage space | Full waveform recording | 400 events (at 1000 Hz, 1.25 sec length, 4 channels) |
| | Histogram recording | 21 days (at 5 sec interval) for 4 channels; 30 days (at 7 sec interval) 270 days (at 1 min interval) |
| | Full waveform and histo-gram (Mix Mode) | 30 days (at 1 min interval); 400 events (at 1000 Hz, 1 sec length) |
| Modem | | LTE (Bands: 1, 3, 5, 7, 8, 28); UMTS/DC-HSPA+ (850/900/1900/2100) GSM/Edge (850/900/1800/1900) |
| Bluetooth | | Bluetooth Class 2 with embedded antenna |
| PC Connectivity via | Bluetooth | Bluetooth class 2 (range: 3 m) |
| | Serial (RS232) | Serial port connection |
| | GPRS (Internet) | TCP/IP (Internet) |
| FFT Analysis | | via PC software, Australian 2187.2-1993 Standard |
| User interface | | 1x16 character LCD with backlight |
| Alarm notification | | Alarm messages via email, SMS and external relay outputs |
| Auxiliary Relay Output | | 2 Auxiliary relay outputs 12V 1A (12W) |
| Battery Capacity | | Internal 6V 7000 mAh |
| Dimensions (w x h x d) | | 180 x 110 x 45 mm |
| Operating temperature | | -10º to +70ºC |
| Humidity | | Up to 90% non-condensing |
| Supply Voltage | | 10 – 14 V |
| Power consumption | | 50 mA (Standby); 100 mA (Typical) |
| Warranty | | 12 months |

The replacement of any components must be carried out by AutoTest™ Products or an Authorised AutoTest Products Service

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