Auto*Blast*™

Ground vibration logger

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Auto*Blast*™ 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. Auto*Blast*™ 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.

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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 histogram (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 Centre.

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