

# THE INTEGRATED BLAST VIBRATION MONITOR

100263

## SPECIFICATIONS - PHYSICAL

**Size (with antenna)** 2.1 m (h) x 1.2 m (w) x 0.8 m (d)

**Operating Temperature** 0 °C to 50 °C

**Protection Level** Outdoor suitable

Equipment mounted to 60mm pole, which is typically installed by concreting into the ground.

## SPECIFICATIONS - VIBRATION SENSING

**Method** Triple axis geophone

**Bandwidth (-3 dB)** Bandwidth (-3 dB)

**Sampling Rate** Outdoor suitable

**Maximum Measurable Vibration (frequency dependent) 102 mm/s or 204 mm/s depending on sensitivity mode.**

**Lowest resolvable blast** Better than 0.1 mm/s

## SPECIFICATIONS - SOUND OVERPRESSURE

**Method** 1/2" omni-directional microphone

**Bandwidth (-3 dB)** 2 Hz - 400 Hz

**Sampling Rate** 1 kHz

**Maximum measurable sound pressure 128 dbL or 131 dbL depending on sensitivity mode.**

## DESCRIPTION

The Integrated Blast Vibration Monitor is a ground vibration and sound overpressure monitor which provides alerts and measurements of blast events via Novecom's easy to use SynaptiX web platform.

Deployed individually, or in a group, the Monitor provides near real-time awareness of the vibration and sound effects to assist with demonstrating compliance.

The equipment is robust and intended for continuous outdoor operation. When coupled with Novecom's ongoing maintenance and field support services, the Monitors provide a comprehensive ongoing capability for mines to monitor the effects of blasts.

The Integrated Blast Vibration Monitor is part of an ecosystem of IIoT products from Novecom. Contact us for variants that suit your application.



## COMPLIANCE

Data Acquisition	AS2187.2-2006
Microphone Capsule	IEC 61094-4 (1995)
Solar Sizing	AS 4509.2:2010

## SPECIFICATIONS - ELECTRICAL

Power Supply	Internal Rechargeable Battery
Internal Battery	86 Wh LiFePOE4
Power Generation (solar source)	2 x 40 W PV panels

## SPECIFICATIONS - COMMUNICATIONS

Data Link	LTE/5G Cat M1, included antenna
Data Link Bands	B28
Data Link Plans	Factory installed full size SIM
Local Diagnostics	100 BASE-TX Ethernet

## SPECIFICATIONS - COMPUTATIONAL

Storage	Factory installed Micro-SD, 128 GB
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Onboard software is configured for use with Novecom SynaptiX cloud software.

## CONNECTORS AND PINOUTS

For details of of the connectors and pinouts, please refer to the datasheet for the Novecom 101873.



## ORDERING DETAILS - NOVECOM PARTS

PART NUMBER	DESCRIPTION
101352	Integrated Blast Vibration Monitor with Cat M1 LTE modem (complete field unit)
101360	SynaptiX Collector (IOT+LTE+ADC) (replacement part)
100537	SynaptiX Collector Ethernet Cable (3m) to RJ45 (optional part)
101998	Geophone GEO-2F Sensor Assembly (replacement part)
101378	Low Frequency Microphone (replacement part)



## SPECIFICATIONS - CELLULAR

The SynaptiX Asset Monitoring System is part of the SynaptiX web services. It provides a cloud based user interface for mine specialists, blast engineers, environmental managers and blast consultants to get access to the vibration and overpressure data.

## SYNAPTIX ASSET MONITORING SYSTEM (SAMS) FEATURES

Operate a blast site in cloud-based SAMS with a single or multiple monitors working together.

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Multiple users can access SAMS with configurable levels of permissions.

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Monitors detect blasts and data is automatically uploaded to SAMS for ready viewing and download through the web as CSV data or pre-rendered charts.

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Notifications of blast events via SMS and email.

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Annotate and track evaluation of blast reports.

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Access diagnostic data about field equipment for condition monitoring.



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