



## FEATURES

- INOVA's single component digital sensor
- Patented MEMS accelerometer and custom electronics to record P-wave
- Single-point receivers with one or three individual sensors per string
- Smallest and most compact digital sensor on the market
- Offers flat amplitude and phase response over a wide frequency range
- Insensitivity to tilt-degradation enables faster deployment of sensors in comparison to geophones
- Robust mechanical housing to withstand operational and environmental stresses
- Compatible with INOVA's Hawk® and G3i® HD acquisition systems



## TECHNICAL SPECIFICATIONS

|                                 |  |                                    |                       |
|---------------------------------|--|------------------------------------|-----------------------|
| Digital Quantization:           | 24 Bits (23 + Sign)  | Frequency Response:                | DC to 400 Hz          |
| Sample Rate:                    | 4 ms, 2 ms, 1 ms, 0.5 ms   | Low-Cut Filter Options:            | 3 Hz, 1.45 Hz, Out    |
| Time Standard:                  | Phase locked to acquisition system clock   | Digital High-Cut Filter:           | 0.82 Nyquist          |
| Full Scale (peak)               | Normal Mode: 3.3 m/s <sup>2</sup> (335mG)<br>Large Signal Mode: 4.9 m/s <sup>2</sup> (500mG) | Total Harmonic Distortion:         | < -100 dB             |
| Noise <sup>[1]</sup>            | Normal Mode: 0.3 μm/s <sup>2</sup> /√Hz (30nG/√Hz)   | Sensor Module Interface:           | One twisted wire pair |
|                                 | 3 Hz to 400 Hz   | Power Consumption <sup>[1]</sup> : | 85 mW                 |
| Dynamic Range <sup>[1][2]</sup> | Normal Mode: 118 dB  |                                    |                       |
| Frequency Response:             | DC to 400 Hz   |                                    |                       |
| Low-Cut Filter Options:         | 3 Hz, 1.45 Hz, Out   |                                    |                       |
| Digital High-Cut Filter:        | 0.82 Nyquist   |                                    |                       |
| Total Harmonic Distortion:      | < -100 dB  |                                    |                       |



## PHYSICAL SPECIFICATIONS

Dimensions: 6.93 cm (H), 6.47 cm (Ø)  
2.73 in (H)), (2.55 in (Ø))

Volume: 216.96 cc (13.24 cu in)

Weight: 200 g (0.441 lb)

## ENVIRONMENTAL SPECIFICATIONS

Operating Temperature: -40 °C to +75 °C

Storage Temperature: -50 °C to +85 °C

Shock: 1500 g, ½ ms, ½ sine

Humidity: 0% to 100% RH non-condensing

Water Depth Rating: 5 m

## TESTING

Embedded Power-up Self Test: Sensor wake-up and self configuration checks

Operator Controlled System Tests: Spread noise

Sensor loopback (verifies module telemetry, digital filter performance and sensor functionality)

Telemetry error count

Sensor Tilt

Sensor Status Checks: Overscale status

Sensor offset

Digital fault flags