

# Fifth Generation. First Choice.

Designed for the Most Demanding Applications



## DAS N51/N52-Series

With 40+ years of experience and thousands of systems installed for critical safety applications worldwide, the AP Sensing Distributed Acoustic Sensing (DAS) system has stemmed from an improved understanding of our customers' needs and our **unique 2P Squared technology**.

The result? A unique system architecture that not only achieves the **world's leading measurement range** for true phase-based systems without the use of amplification, but also results in **enhanced usability, reduced signal artifacts** such as fading, and **improved measurement performance**. These proven system capabilities are all encompassed within a compact and portable system design that can operate even in harsh environmental conditions.

### Performance

- Measurement performance that balances detection sensitivity (probability of detection) and detection reliability (reduced false and nuisance alarm rate)
- AI-based detection algorithms enable rapid adaptation of the DAS system to the environment
- Application-specific extraction and processing of measurement data
- New algorithms improve the dynamic range and minimum detectable signal by more than 75%

### Reliability

- Significantly improved product lifetime (more than doubled)
- Standard operating temperature range improved by 25%
- Extremely low false alarm rate
- 30% reduced power consumption, ideal for installation in remote and low voltage environments
- Intelligent self-diagnosis tool for improved troubleshooting and smooth operation
- State-of-the-art IT security standards

### Ease of use

- Intelligent commissioning features for reduced setup time
- API feature set provides the capability to develop project specific software applications
- Lightweight and integrable design supports portability
- Various solutions for integration into third-party software or custom cloud-based solutions
- Increased data storage expansion options

	N5125B-Series	N5225B-Series	N5226B-Series
Power cable monitoring	✓	✓	
Pipeline leakage detection	✓	✓	
Well & reservoir monitoring			✓
Geo- & hydrological monitoring			✓
Perimeter monitoring	✓	✓	
Railway monitoring		✓	



Digging events



Walking/climbing



Leakage detection



PIG tracking



Motor vehicle



Train traffic



Explosion/faults



Gunshot



Acoustic profiling



Rockfall



Subsea hazard



Reservoir Monitoring

## Why Choose AP Sensing's 5th Generation DAS?

- **Revolutionary 2P Squared technology** provides a true linear measurement of strain changes generated by acoustic/vibration signals along the sensing fiber.
- **Intelligent event detection:** AP Sensing's proprietary deep learning algorithms precisely analyze acoustic patterns and reliably classify events.
- **Outstanding signal-to-noise ratio (SNR)** accompanied by a **world-leading measurement range** for phase-based systems without additional amplification.
- **Leading performance from noise floor improvements** of over 75% and an **improved pulse rate** that doubles both the resolvable acoustic frequency and the distortion-free acoustic amplitude.
- Available in **single and simultaneous two-channel versions** with extended standard temperature performance. Features a 100 km measurement range with two simultaneous channels.



Learn More About the Product:  
[www.apsensing.com/product/das-n51/n52-series](http://www.apsensing.com/product/das-n51/n52-series)



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