

EchoPoint™ Point Locating Distributed Acoustic Sensors

The EchoPoint™ Distributed Acoustic Sensors (DAS) use the latest technologies in fibre optic sensing and classification algorithms to provide the most advanced solution for high security sites and applications. Providing accurate, reliable, and point locating intrusion detection, the sensors can play a key role in protecting large sites where precise intrusion location is needed.

EchoPoint™ DAS can identify where an intrusion is taking place within a range of 6m. Virtual zoning allows for the system to be broken down into multiple software-defined detection areas. Zone lengths can range from 10m to 100km. The sensors can pass zone alarms to video/security management systems via XML/TCP/IP and/or optional relay I/O contact modules.

The sensors provide advanced cut tolerance when applied in a loop configuration utilizing both channels. In addition to dual power supplies, EchoPoint™ sensors can provide redundant processing, eliminating the single point of failure. In the unlikely event of a processor failure, the second processor will automatically take over maintaining your perimeter security system.

The sensors use an advanced pattern-recognition classification algorithm that has been proven to provide industry-leading performance. EchoPoint™ sensors can identify the differences in intrusion attempts; for fence applications they can determine if its cutting or climbing the fence. For buried applications, the system identifies the differences between footsteps, manual digging, machine digging, and vehicle traffic events.



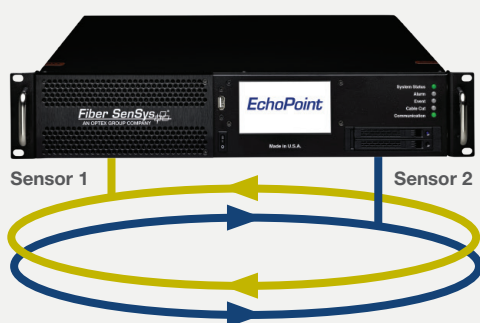
Key Features:

- Location accuracy of $\pm 6m$
- Software zoning
- XML via TCP/IP and GIS integrations
- Maximum fibre optic sensor length of up to 100km per processor

Applications:

- Airports
- Distribution Centers
- Critical Infrastructure
- Data Conduits
- Railways

Loop Configuration

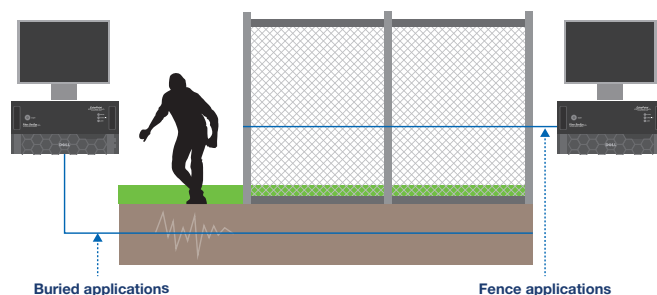






Single Line Configuration



Point Locating Distributed Acoustic Sensors for large perimeters

The EchoPoint Distributed Acoustic Sensors (DAS) utilise advanced fibre optic sensing and machine-learning algorithms to detect precisely the location of an intruder even in large perimeters. The system allows to be operated across multiple applications – installed on fences, buried or hybrid layout.



EP9301/EP9302		EP9311/EP9312		
Hardware	Single 2RU Rackmount Device			
Hard Drive	2 Redundant/Hot Swappable			
Max. Sensor Length	10km per processor, 5km per channel	100km per processor, 50km per channel		
System Configuration	Single line (NO cut-tolerance) or Loop (cut-tolerance)			
Detection Application	Fence, Buried, Pipeline, or Hybrid			
Burial Depth (Dependent on soil depth)	30 - 90cm (1 - 3ft)			
	EP9301	EP9302	EP9311	EP9312
Classification Reporting	NO	YES	NO	YES
Human Walking	NO	YES	NO	YES
Human Running	NO	YES	NO	YES
Vehicles	NO	YES	NO	YES
Hand Tool Digging	NO	YES	NO	YES
Machine Digging	NO	YES	NO	YES
Processor Redundancy (optional)	EP9301-B™ Below 5km	EP9302-B™ Below 5km	EP9311-B20™ 5km - 20km EP9311-B21+™ 20km - 100km	EP9312-B20™ 5km - 20km EP9312-B21+™ 20km - 100km
Electrical				
Input	100/240 VAC, 50-60Hz			
Power	120 watts			
Mechanical				
Dimensions	48x51x9cm (19"x20"x13.5")			
Rack Space	2U			
Weight	11.4 kg(25lbs.)			
Environmental				
Temperature Controller	0°C to 50°C (32°F to 122°F)			
Humidity Controller	20% to 80% non-condensing			
Sensor Fiber Spec				
	Must meet ITU-T G.652.D, and have a maximum attenuation ≤0.25 dB/km at 1550 nm			
Integration				
Built in	XML TCP/IP			
Optional	SeaLevel™ USB I/O module			
Certifications				
Electromagnetic Compliance	FCC Part 15 Class A – EC EMC Directive 2004/108/EC			
				

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