



This product is developed with the cooperation of SAMM and TÜBİTAK BİLGEM



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# Fiber Optic Based Distributed Acoustic Sensing System

# Applications Types

With FOTAS, a large variety of activities can be detected remotely along a fiber line, such as the below applications:

#### Environmental and Border Security

A detection fiber can detect unauthorized excavations when laid under the ground, and it can detect climbing and cutting attempts when mounted on a wire-fence.

#### Pipeline Security

ΟΤΑS

When deployed along an oil, natural gas or water pipeline, FOTAS can detect sabotage and unauthorized excavations.

#### Telecom Line Security

The advanced FOTAS artificial intelligence allows the detection of multiple events, and offers a wide range of application areas. Damages along communication lines can be monitored in-real time and any unauthorized excavations can be easily detected.

# **Functional Features**

- The fiber optic line can be monitored live using GIS (Geographic Information System) based Human Machine Interface.
- No installation is required to use the operator interface.
- Types and regions of threats can be defined along the desired regions of fiber cables.
- Past threats can be accessed and analyzed.
- Access can be granted to multiple users.
- With CCTV integration, threat zones can be located and visually monitored, ONVIF supported.
- FOTAS can be integrated with other security solutions.

# **Technical Specifications**



# **General Features**

- Access to FOTAS with multiple devices via web interface
- Fast and reliable with 24/7 access
- Up to 100 km of real-time security with one device
- Up to 10 m sensitivity range
- Ease of use and installation
- Compatible with previously deployed fiber cables and can have dedicated fiber cables
- No electricity or electronic devices needed along the protected area

Models	Single Channel				Dual Channel			
	SF-5	SF-10	SF-30	SL-50	DF-5	DF-10	DF-30	DL-50
Detection Distance	5 km	10 km	30 km	50 km	Dual 5 km	Dual 10 km	Dual 30 km	Dual 50 km
	J KIII	TU KIII	50 KIII	JU KIII	Single 10 km	Single 20 km	Single 60 km	Single 100 km
Position Accuracy	4 m 10 m			4 m 10 m				
Number of Channels	1 fiber per device				2 fibers per device			
Models	All Models							
Dimensions and Weight	Interrogator Unit				49 cm(19") x 50 cm x 8.9 cm(2U), 8 kg			
	Processor Unit				49 cm (19") x 65 cm x 17.8 cm (4U), 20 kg			
Electrical Requirements	Input voltage				115/220 VAC 50/60 Hz			
	Average Power Consumption				~400 W			
	Maximum Power Requirement				675 W			
Operating Conditions	Sensing Cable				-40°C ~ 70°C			
	Interrogator and Processor Units				0°C ~ 60°C (AC environment)			
System Interface	Web 2.0				Mobile Compatible			
Integrations	Genetec <sup>™</sup> Security Center and other video management systems							