MINI MK3

SEISMIC AND ACOUSTIC SENSOR

FLEXNET

DETECTION AND CLASSIFICATION OF HUMAN ACTIVITY

EXENSOR

MINI MK3

PART OF THE FLEXNET PLATFORM

The Mini Mk3 sensor is a wireless, seismic and acoustic sensor specially dedicated to both detection and classification of human activity. The sensor detects vibrations and sound waves within a specific area of interest. Data is then analysed using advanced algorithms, classified and transmitted to the wider surveillance system.

Designed to reduce operator burden, the Mini Mk3 is ideally suited for operations where weight and size are critical factors.

Applying data fusion and sophisticated algorithms, the Mini Mk3 can detect and classify movements of humans and vehicles whilst filtering out unwanted alarms. Using encrypted communications (AES-256), alarm data is transmitted to the base station by the built-in radio.

When the "recording" mode is activated or the communications is interrupted, alarm data is stored within the device until requested by an operator or the communications link is re-established. Each Mini Mk3 sensor operates as an individual node in the Mesh network, and can relay data from other sensors (Mini/Scout/PIR) back to the base station if required.

Technical specifications

Size	115mm x 54mm x 100mm (without spike attached)
Weight	0.5kg
Operational endurance time	30 days with integrated rechargeable battery (1-year battery as option)
Temperature	-32 to +71° Celsius in operation
Environmental	MIL-STD-810
EMC	MIL-STD-461
Tamper alarm	Built-in antitamper with GPS
Position	GPS for self-location

Performance

Classification	Detection ranges
Person	50m
Group	50m
Light vehicle	100m
Heavy vehicle	200m
Digging	50m
Helicopter	8km

Capabilities

- → Multiple simultaneous alarm classification
- → Automatic detection range prediction
- → PIR lens can be connected to sensor
- → Fusion over radio with other sensors
- → Continuous background estimation
- → Input /output for trigger signals