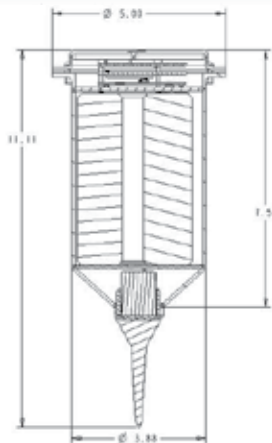


MICROOBSERVER™ BASE & BORDER PROTECTION UNATTENDED GROUND SENSOR SYSTEM

MO-2730 SENSOR



Dimensions in inches



false alarms. Non-targets, such as wind and blowing debris, are ignored. With no external antenna, added seismic noise from wind and debris is eliminated, further reducing the potential for false alarms.

The MicroObserver wireless network is designed to operate in non-line-of-sight conditions, over rugged terrain and through vegetation. Gateway-to-sensor standoff distances are 1-5 kilometers (km), with options for up to 10 km.

MO-2730

The MicroObserver MO-2730 sensor is the key component to Textron Systems' long-term, strategic unattended ground sensor solution. With a mission life of more than two years and features for covertness, reliability and ease of use, the MicroObserver system is well suited for a variety of applications.

The MicroObserver Unattended Ground Sensor System is built for long-term, covert surveillance. With no external antennas or cables, the MO-2730 utilizes conformal communication and GPS antennas that enable the sensor nodes to be buried either one inch below the surface or flush with the ground, allowing them to be lightly covered with sand, dirt, brush or snow. The system's conformal antenna and long-range radio protocols are designed for wireless communication using a remotely located gateway.

Designed for quick, easy deployment, the MicroObserver system utilizes a self-forming, self-healing wireless network and can be installed by minimally trained personnel. Powering up the nodes is a simple, one-step operation. Field maintenance is minimized by the sensor node's multi-year mission life.

Advanced seismic detection algorithms for personnel and vehicles make the MicroObserver system difficult to defeat. The system automatically adjusts to maintain maximum sensitivity while reducing

SPECIFICATIONS

FUNCTIONS

- Detection and classification of dismounted personnel and vehicles

FEATURES

- Superior detection with a very low false alarm rate
- More than two years of battery life in a self-contained package
- Easy-to-camouflage sensor node that can be buried
- Easy to install and operate
- Self-healing and self-configuring network
- Self locating, no field programming required
- Non-line-of-sight communications
- Low probability of detection/intercept with anti-jamming features

PERFORMANCE

- Radio frequency 2.4 gigahertz (industrial, scientific and medical, or ISM, band)
- Temperature -30 to 70 degrees Celsius
- 100 percent humidity
- Communication range (to gateway) up to 5 km
- Detection range up to 100 meters for personnel and up to 300 meters for vehicles
- System probability of detection 0.95 (cumulative)
- Powered by a lithium thionyl chloride, or Li-SOCl₂, battery
- Greater than two-year mission life

PHYSICAL CHARACTERISTICS

- 4.4 pounds with batteries

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Textron Systems
Weapon & Sensor Systems
201 Lowell Street
Wilmington, MA 01887
Phone: 978-657-2100