

MICROOBSERVER™ UNATTENDED GROUND SENSOR SYSTEM

MO-1045 SENSOR



MO-1045

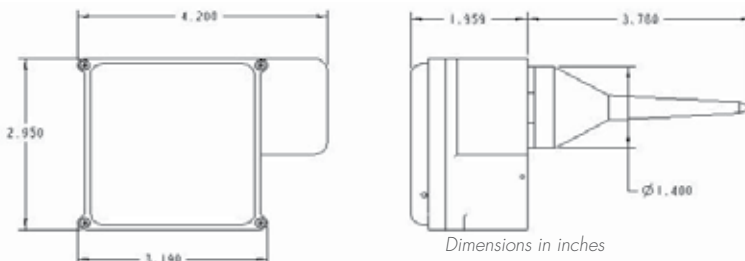
Textron Systems' MicroObserver MO-1045 sensor is ideally suited for mobile or temporary missions needing a tactical unattended ground sensor system. Easily camouflaged in wide variety of operational environments, a single 20-sensor system satisfies numerous concepts of operations.

Quickly and easily deployed, the MicroObserver Unattended Ground Sensor system is designed to be used by minimally trained personnel in real-world conditions. The node is powered up by inserting the battery tray. The wireless network self-forms and is self-healing with no other action required except emplacing the sensor in the ground.

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 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 wireless network is designed to operate in non-line-of-sight conditions, over rugged terrain and through vegetation. Gateway-to-sensor standoff distances are up to five kilometers (km).

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FEATURES AND SPECIFICATIONS

FUNCTIONS

- Detection and classification of dismounted personnel and vehicles

FEATURES

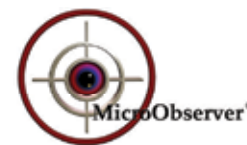
- Superior detection with a very low false alarm rate
- 1-month battery life in a 4.2-inch (in.) x 3 in. x 3 in. package
- Small, easy-to-camouflage sensor node that can be buried
- Easy to install and operate
- Self-healing and self-configuring network
- No field programming required
- Sensors can be relocated and redeployed
- Non-line-of-sight communication
- Low probability of detection/intercept with anti-jamming features
- Sensors have no external antennas or cables

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 three AA batteries
- 1-month mission life

PHYSICAL CHARACTERISTICS

- 1.4 pounds with batteries



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