Hi-G-Tek

Hi-G-Seal

Hi·G·Tek

The Hi-G-Seal is a rugged, durable, wireless electronic data sealing and sensing device that provides robust physical security as well as automatic processing and real-time monitoring of assets, and secured cargo both in transit and in storage.

The Hi-G-Seal uses Highly Intelligent RFID (Radio Frequency Identification) wireless technology- and includes a transmitter/receiver unit, read/write capability, real-time clock, memory and patented sensing circuitry for sealing verification.

The physical protection provided by the Hi-G-Seal is equivalent to that of an alarm tag. Encrypted multi-strand wire and embedded sensors prevent any attempt at detaching, bypassing, or tampering with the Hi-G-Seal. The system detects any such attempt, records the event, and sends an alert as needed. At the core of every Hi-G-Tek device is the patented and trademarked "DataSeal™" sensing system.

The Hi-G-Seal is powered by an internal battery which uses patented energy management technology to provide years of maintenance free operations.

In low-frequency short-range mode, the Hi-G-Seal logs and communicates data through a handheld data terminal and can also be inspected and/or set by a small key-fob unit called the MicroReader. The Hi-G-Seal can store customer specific information electronically in memory. The information can include vehicle ID, container and invoice numbers, cargo descriptions, quantities and destinations.

The high frequency long-range mode provides full two-way read/write data communication capabilities at a distance of 100+ meters with fixed or mobile readers. The Hi-G-Seal transmits the information in reply to an interrogation by the Hi-G-Tek DataReader or when it detects an unauthorized event. Many Hi-G-Tek devices such as Hi-G-Locks, Hi-G-Tags and Hi-G-Seals, can be monitored simultaneously by one Hi-G-Tek DataReader™.

This long-range capability makes the Hi-G-Seal ideal for protecting, tracking, sealing, and verifying of assets such as containers.

Successful monitoring can also include stationary objects such as ingress/egress portals, armory facilities, and yard/gate management systems.

Features:

- Reusable wireless electronic wire
- Extended maintenance-free operation with no recharging
- Secure short and long range wireless communication
- Kevlar reinforced polyurethane coating or flexible metal hose options available
- Electronic wire available in wide range of lengths.

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Technical Specifications:

Communications:
Full 2 way Duplex Frequency Ranges:
- Low Frequency: 125 KHZ
- High Frequency: 916.5 MHz, 433.92MHz (ISM Band)

Physical Dimensions (excluding sealing wire):
- Size: 50 x 37 x 80 mm
- Weight: 100g

Power Requirements:
- Power Source: 3.6 V internal Lithium battery

Environmental:
- Operating temperatures -40ºC to +70ºC
- Storage Temperature: -40ºC to +80ºC
- Installation Environment: Designed for Extended Outdoor use
- Vibration and Shock: Complies with MIL-STD–810D for mobile equipment and SAE J1455

Read Range:
- Low Frequency: 40cm
- High Frequency: 100+ meters in open space

Antenna Characteristics: Beam Divergence:
- Omni-directional (on non-metal wall)
- Hemispherical (on metal wall)

Software Features: Memory:
- User Memory: 3K Bytes
- Events Memory: Up to 100 events

Life Expectancy: Service Life: 4-5 years at 50 readings per day

Housing: Splash-proof plastic reinforced with fiberglass

Electronic Sealing Wire:
- Sealing wire comes in many lengths between 110 cm and 40m
- Custom lengths are available up to 40 meters
- Sealing wire diameter: 6mm
- Sealing wire plug diameter: 10mm
- Wire Material options:
  -Kevlar Reinforced Polyurethane coat
-Flexible Metal cable *(Special Order Only)

Options/Accessories:
- Motion/Tilt detection
- Mounting Fixture (for Cargo Container)
- Protective silicon casing (cannot be used with mounting fixture)
- H shape connector is available for chaining Sealing Wires

Standards:
The Hi-G-Seal complies with Federal Communications Commission (FCC) regulation Part 15, and CE approved

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