

The OpticalLock® System

More than just a padlock!

Traditional mechanical locks can be cut and easily replaced: they can be duplicated, broken, or tampered with in such a way that the internal security mechanism of the lock is bypassed and the lock become useless.

The OpticalLock® approach is different. The OPTi-100 is more than a just a lock. If tampered with in any way, it sends silent wireless alerts to management, providing real-time actionable intelligence to thwart the attempt immediately.



OPTi-100



And unlike traditional padlocks, it cannot be duplicated. The OpticalShield™ fiber-optic, tamper-detection technology, requires each unique fiber-optic signature to be matched to the OPTi-100's original signature recorded when manufactured. No two can ever be identical.

In addition to robust security and theft prevention, the OpticalLock System includes a cyber-secured, cloud-based tracking and management reporting system. All combine to provide you with absolute confidence in your storage and shipping integrity.

How it Works

The OpticalLock System consists of three hardware and software components which form a powerful, synergistic new tool to secure and verify the authenticity of high-value physical goods shipments, storage room contents and remote facilities.

● OPTi-100

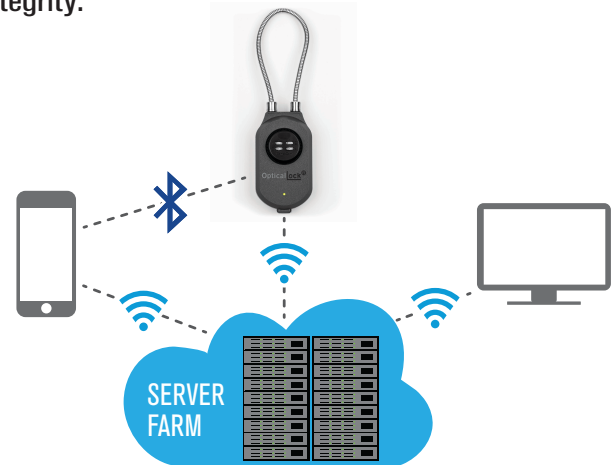
Shackles on like a typical padlock, detects tampering attempts and intrusions like a security seal, wirelessly and sends alerts and alarms. Use the optional GPS to track, map and fence your Locks, all while documenting its history every minute of every day.

● OpticalLock Field User Mobile App

The secure App is available for download only to pre-authorized users. It acts as a bridge between the field user, the OPTi-100 and the cloud-based OpticalLock Management Software. The OpticalLock Field User Mobile App is used to identify and authenticate the OPTi-100's unique fiber-optic signature. It also allows local control of tight geofences during temporary stops and breaks.

● OpticalLock Management Software

This cyber-secure, cloud-based software system stores in a single place a complete profile of each Lock and every user. History data includes every reported alarm or alert, along with each interaction with every Lock and field user. Real-time, detailed maps track the path of OPTi-100-secured cargo while in transit. Data can be downloaded for reports and process improvements.



Sample Applications:

- Secure high value cargo like jewelry, pharmaceuticals and fuel against theft
- Prevent counterfeit goods substitution
- Guarantee ballot box security and integrity
- Track and monitor cargo
- Protect high-value goods being stored or warehoused
- Secure classified or sensitive documents and records
- Guard remote equipment and facilities

The OpticalLock® System

Key OpticalLock Benefits

What's locked in by the OpticalLock system is what is opened by the OpticalLock system –

The patented optical signature is unique to each device and guarantees that the OPTi-100 has not been duplicated, modified or replaced, thereby authenticating the contents.

Feel confident that the data is secure – The OpticalLock system is designed with the highest level of security in mind with multiple secure layers, including AES-256 data encryption.

Track your shipments in route – An optional internal GPS sensor sends location data 24/7 that is tightly integrated with cloud-based mapping, allowing you to see your high-value cargo every step of the way.

Put a fence around your goods – Geofencing allows you to put a protective barrier around a route, warehouse or yard. Crossing that line immediately sends an alarm. And deliveries that aren't made on-time also send an alarm with our time-based geofencing.

Actionable intelligence gives you a head start in thwarting robbery attempts – Real-time, silent, wireless alarms will alert designated personnel to attempted breaches or tampering.

A secure smartphone App limits access to the OPTi-100 to only authorized field personnel – Access to the Lock's combination via the OpticalLock Field User App is tightly controlled. The App is only available by secure email invitation.

Know to-the-minute where every Lock is, where it's been and who has had access – OpticalLock's powerful Management Software reporting features enable real-time control of all Lock inventory, as well as historical analysis for supply chain reporting, security and process improvements.

Be confident that your goods stay secure for months on end – The long-life battery is rechargeable, and alerts are sent to authorized personnel when it begins to get low, allowing timely planned maintenance. Customizable reporting intervals maximize each charge, or keep minute-by-minute tabs on high-value goods being moved.

From snow covered plains to hot, searing deserts, we've got a Lock on it – The OPTi-100 operates from -25°C (-13°F) to 60°C (140°F) allowing tracking and security in the harshest of environments. And our global cellular network spans over 180 countries.



Environmental and Operational Specifications

Operating Temperature and Humidity

Temperature: -25°C to +60°C; to +50°C in storage.

Humidity: 95% relative humidity over the temperature range from -25°C to +60°C

External Environment Exposure

Salt Fog: as per ASTM B117

Ingress protection rating: IP66

Complete protection against dust and sand

Complete protection against water jets

Protected against temporary flooding of water, for use on ship decks

Structural Vibration and Mechanical Shock

Vibration: IEC 60068-2-6 sinusoidal vibration, and IEC 60068-2-64 random vibration

Functional Shock: Mil -STD-810G, Method 516.6, Procedure 1

Radiation and Electromagnetic Environments

FCC certification for radiated and conducted emissions: Compliant with FCC Title 47, Part 15

CE Certification

CSA Certification

Certified for Hazards of Electromagnetic Radiation to Ordinance (HERO)

Immune to radiation as per IEC 61000-4-3 susceptibility test

Immune to static electricity discharge as per IEC 61000-4-2

Safety

Underwriter's Laboratory Certified

Wireless Communications Certifications

PTCRB

Bluetooth

System Specifications:

Lock Dimensions: 3" x 3" x 1.5"

Lock cable length: Variable, Standard 12"

Battery Life: Variable based on device settings; up to 4 months before recharging is required

Number of OPTi-100 IDs: Infinite

Communication to Server: Android 6.0+ and choice of either a GSM/GPRS or WiFi option

Maximum range to mobile phone: 100 meters via Bluetooth LE

Data Encryption: AES-256

Database format: MS SQL Server

ISO 18625 compliant

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