



Cellular Enabled Bolt Seal

FEATURES

*Barrier electronic seal
tamper signal transmitted
when bolt is removed or cut*

Quick & Simple Installation

Global GSM coverage

*Zigbee Wireless LAN
enables communication with
other GlobalTrak devices*

*Reusable polycarbonate seal
body*

*ISO/PAS 17712:2003
compliant plastic housing*

*Interfaces to other ERP,
TMS, WMS, and MIS
systems*

GlobalTrak Kratos global cellular-enabled electronic bolt seal sets a standard for cargo security. Co-developed with the world’s largest seal company, Tyden-Brooks, **Kratos** C-TPAT compliant electronic barrier seal features enhanced security and visibility. Using **Kratos** is as simple as installing a standard physical bolt seal. Fully compliant with ISO Standard 17712, **Kratos** is a flexible cargo tracking, security, and condition monitoring device that enables asset positioning through GSM cell, ZigBee, and assisted GPS.

The **Kratos** housing can be reused; the bolt and locking cap provide a secure truck or container lock, and reliably detect cut or removal in real-time. An optional bolt with a security padlock version is available for repeated use. The **Kratos** battery is recharged through the bolt seal cavity; the device remains completely sealed. **Kratos** uses the GlobalTrak Information Management Bureau in conjunction with all communication methods to provide a robust and versatile asset monitoring solution providing security; supply chain automation; management overview via dashboards; precise measurement against performance metrics and KPIs; and the ability to detect and correct supply chain anomalies in real-time. **Kratos** supports a secured Authorized Agent Chain-of-Custody scheme similar to Registered mail.

SPECIFICATIONS:

Enclosure:	66mm x 91mm x 25mm (2.6" X 3.6" X 1.0")
Mass:	170 g (6 oz with batteries)
Sensors	
Temp:	-40°C (-104°F) to +85°C (+185°F) Operating
Motion	Simple motion detection
Vib/Shock:	3-axis shock ±18, ±6, ±3 g/axis, constant monitoring.
Battery:	LI-ION Rechargeable, 2000mAh, 3.6V
Life Expectancy:	6 months at 1 reports per day 90 Days at 4 reports per day 30 Days at 1 hour reporting
Door Intrusion:	Seal provides more than 2,000 lbs (907kgs; kN) of pull-out strength – bolt cutters required for removal
Motion Detection:	Integral Motion sensor (Start/Stop). Independent of accelerometer.
Certifications:	FCC part 15 and part 25,ETSI EN 300 328, ETSI EN 301 489-1, IP-67



Embedded Electronics
Intelligent Security Device



Padlock Version with
Reusable Bolt Seal



Embedded Tracking
Version

SPECIFICATIONS:

Coding and Authentication	Each seal contains unique ID number, electronically hard coded into the seal's data bank
Cellular Communications:	Quad-Band GSM for worldwide coverage 2-way communications – upload & download GPRS & SMS with automatic least-cost routing
Cell Based Location	If GPS is not available cellular technology is utilized to report approximate location
GPS Receiver:	Cold Start: <45 seconds TTFF (95%) Hot Start: <10 seconds TTFF (95%) <2.5-meter accuracy
ZigBee Wireless LAN:	Communicates with all GT Wireless Sensors Mesh networking available 868/915 MHz & 2.4 GHz ZigBee Wireless Tx power, max: 1000 mW (USA), 100 mW (Europe), 10 mW (Japan) Tx power, min: 1 mW
Storage	Stores up to 500 reports if cell is not available
Compatibility	Operates with other GlobalTrak Zigbee enabled devices such as the Remote Sensor Node and Hyperion strap seal and Hercules bolt seal

Embedded Tracking Mode and Standard Tracking

Kratos can also be used in an embedded tracking mode where the device is placed inside the container, truck, or even inside the cargo itself. In this mode a “dummy bolt” is placed into the device simply to activate the unit. Because of the Kratos small size and high performance, it is well suited for tracking applications of this nature. Kratos can also be used as a standard tracking device when mounted on a truck, container, or any other asset through a variety of mounting methods. It is ideal for high performance monitoring, applications, sensor networks, and a variety of other uses.

specifications subject to change without notice