

JANUS GATE

AUTOMATIC READING OF RFID E-SEALS to enhance terminal operations, cargo security & e-shipments



025-7401-819

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JANUS GATE

- JANUS GATE is a RFID-based system that optimizes terminal Gate-in/Gate out operations by exploiting e-seals together with the terminal Truck Appointment System (TAS).





Terminal requirements

- To enhance/automize their operations (TOS-TAS)
- To have Gate IN / Gate OUT efficient and reliable systems at low cost
- To optimize security (seals)
- To minimize/reduce claims
- To save on labour costs
- To have accessible and sustainable pricing for all the parties
- To create an added value for their customers & other key players of the logistic supply chain (e.g. Customs)
- To be(come) an innovative Terminal
- Any investment has to be with fast payback



What is RFID?

RFID: Radio Frequency Identification

- A technique for **automatic identification** and **data communication** by means of **radiofrequency**, **contactless** and **without line-of-sight**
- Several frequency bands available for use according to international standard and regulations – **UHF (862-868 MHz, ETSI 320-208)** is **adopted in automatic gates for Terminals** due to the better technical performance in reading distances, and reliability



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How JANUS GATE works with RFID

JANUS GATE is a **HW/SW integrated system** that offers an all-in-one capability to monitor and manage the movement of RFID seals (e-seals) applied to truck/container:

- It **automatically reads ID code of e-seals**
- It gives **automatic tamper evidence** at truck/container transit - when using e-seals tamper evident or three-state version

answering TOs's needs as for **automation and enhancing of operations.**



Why JANUS GATE meets TOs' needs

GOAL: Successfully introducing into the Terminal operations the e-seals together with TAS (Truck Appointment System), in order to optimize the trucks' flow, but also the OCR.

- Trucks transporting containers with an e-seal **do not have to stop anymore for a physical inspection** but can drive directly to the truck interchange zone via the dedicated fast lanes, **speeding up gating and preclearing operations. No more queuing** (fast-lanes).
- **No more errors in entering the seal number** (truckers/checkers).

JANUS GATE equipment

- No. 1 RFID UHF top performing read/write unit, standard EPCglobal UHF Class 1 Gen 2 / ISO 18000-6C
- No. 1 integrated RFID UHF far field antenna (up to 4 can be managed by the unit)
- No. 1 antenna cable
- No. 1 220 Vac-24 Vdc universal adapter
- Middleware to perform RFID settings and collect/filter data from the field

As options:

- No. 1 external lighting equipment to give the operator a visual feedback about right reading operation.
- No. 1 photocell to activate reading operation.



One reading
unit and two
antennas per
every lane

Photocell
sensors

Housing
IP65

Adjacent lanes reading



JANUS GATE: key features

- RFID system compatible with all regulations worldwide
- Advanced Detection Algorithm and Lane Detection Firmware, for the accurate and efficient reading of e-seals, even in adjacent lanes
- Auto setting to improve the reading in any environmental conditions
- Fault Tolerance Management system: for 24-hour service continuity
- Special filter to avoid reading other RFID tags (only RFID e-seals are detected and communicated)
- Quick and easy installation and setup
- Fast TOS/TAS SW integration

It can work with any RFID e-Seals

UHF RFID CABLESEAL - logistic and tamper evidence

UHF RFID NEPTUNESEAL – logistic and tamper evidence

- passive RFID
- ISO17712:2013 certified
- *yes/no* tampered indication








THREE STATE RFID MYRMIDON CABLE SEAL
SOTER BOLT-LOCK SEAL

- passive RFID
- ISO17712:2013 certified, patent pending
- *Three state* status indication, open, locked, tamper



Field of action of LeghornGroup

-  **PROTECTION:** We can protect your goods and assets with security seals and various products for tamper protection. The company can create bespoke, technical solutions to meet client's requirements.
-  **CONTROL:** We ensure goods and people can be monitored using security products and integrated complete hardware and software solutions that allow the operator to monitor and intervene in real time, even remotely.
-  **IDENTIFICATION:** LeghornGroup's understanding of authentication along with their innovative technical products and solutions allow users to uniquely and securely identify, goods, vehicles, containers, animals and people.
-  **TRACKING:** LeghornGroup's real time GPS tracking devices allow users to monitor location, status and movements of vehicles and people.
-  **RFID SOLUTIONS:** LeghornGroup also manufactures solutions for product authenticity; automatic identification systems using RFID to aid traceability of objects, animals and people, offering new and efficient operations to speed up the supply chain.

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