



ISO 9001


LEGHORN
SINCE 1978 .ORG
TAMPERING PREVENTION
INTRODUCING A NEW LEVEL OF EXCLUSIVE SECURITY



MENTORSEAL

**ACTIVE ELECTRONIC SEAL FOR
CONTAINERS**

MENTORSEAL

Active Electronic Bolt seal for Containers



Introduction:

LEGHORN Group proudly presents the first electronic single-use seal for containers.

LEGHORN GROUP has always been focused on innovation, whilst carefully developing products not only highly capable of resolving problems of tampering and pilferage along the supply chain, yet at the same time extremely easy to use.



**READABILITY
DISTANCE
15m to 20m**



**LESS THAN
€10 a piece**



MENTORSEAL

Active Electronic Bolt Seal



DESCRIPTION

MENTORSEAL has the same mechanical parts as the bolt seal **NEPTUNESAL** ISO 17712:2013 and it has

been integrated with all the technical features of an active transponder.

It successfully combines its main purpose of container security with the ability of traceability, whilst the container is in movement.



MENTORSEAL can be read using reader gateways or by using hand held readers.

It has a unique identification code.

It can be read at a distance of at least 15m.

MENTORSEAL is an economically priced single use seal.

The main innovative features of the are **MENTORSEAL** are :

- record on the memory of the timestamp the moment the seal is born.
- record on the memory of the timestamp the closure of the seal.
- record on the memory of the timestamp the opening or tampering of the seal.
- uniqueness of the match between the head of the seal the pin and the outer.

DATA EXCHANGE

Data received on the **MENTORSEAL** when read by the handheld reader have to be downloaded onto the server, rather with a gateway reader they go directly to the PC.

TRACEABILITY

MENTORSEAL can store on its internal memory 15 Log and ID container.

This means the logistic movement of the container can be traced using the information received.

READING AT A DISTANCE

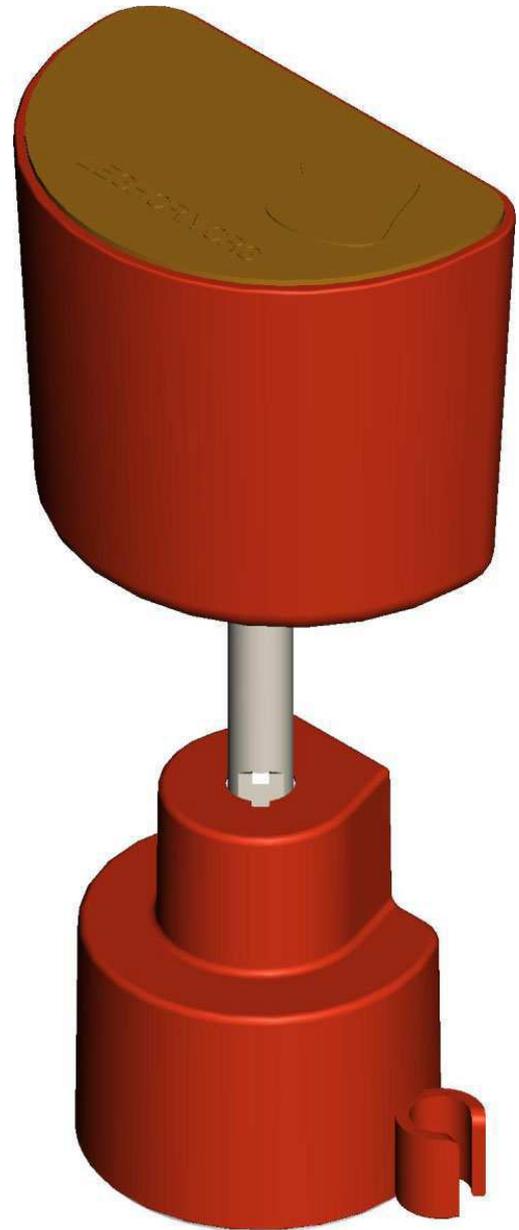
As **MENTORSEAL** can be read at a distance of at least 15 m, there is no need for "contact reading" The seal can be read whilst the vehicle is in transit, thus speeding up all inspections.

MENTORSEAL

Active Electronic Bolt Seal

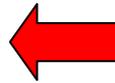


Radio Frequency specification	
Frequency	4.33 MHz / 2.45 GHz
Reference RF Standard	ETSI EN 300-220 / ETSI EN 300-440
RF Protocol	owner of the producer
Technology	Active
Mechanical specification	
Material	Steel + ABS or polystyrene in accordance with : Restriction of Hazardous Substances (RoHS) listed in the European Directive 2002/EC.
IP Protection	IP66
Operative Temperature	- 20°C / + 60 °C
Storage Temperature	- 55°C / + 125 °C
Size Electronic Part (flag)	64x50x40 mm
Metallic pin size	8 mm diameter - length 74 mm
Bolt size	32 mm diameter - length 40 mm
Weight	135 g
ISO 17712:2013	yes
Package size	32x25x10 cm
Package weight	4 kg
Package number seal for box	24pcs
Personalization serial number	Yes
Personalization logo	Yes
Electronic specification	
Reading distance handheld reader	12 m
Reading distance gate reader	20 m
Battery	Yes (3V)
Memory read / write	Yes
Cycle read / write	100.000
Memory size	1 Kbyte
Password protection	yes
Tamper Detection	yes
TID (tag unique identification)	yes
S/N in memory the same normal seal	yes
RTC (real time clock system)	yes
Record in memory timestamp seal closed	yes
Record in memory timestamp seal tamper	yes
Record in memory timestamp log event	yes
Unique association between pin and bolt	yes
Lifetime if seal is active (electronic parts)	1 year
Integration with handheld reader	owner of the producer PDA
Integration with gate reader	owner of the producer



**MENTORSEAL HAS BEEN CONSTRUCTED USING THE MECHANICAL PARTS
CERTIFIED ISO 17712:2013**

OTHER ELECTRONIC CLOSURES FOR CONTAINERS



E LOCK GOLD : REUSABLE ELECTRONIC SEAL

GSM/GPS

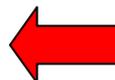
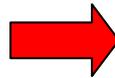
E Lock GOLD is fitted with a mobile phone sim card and is compatible with most GSM penta band phone operators worldwide.

(The only country that does not operate on this band is Japan). It sends the GPS coordinates to your mobile phone.

NEPTUNESEAL RFID ANTITAMPER

Besides having all the same features of the RFID LOGISTIC seal NEPTUNE SEAL RFID ANTITAMPER records in its memory if it has been tampered by activating the status TAG TAMPER ALARM when it is read.

Built from the same parts of the Mechanical Seal NEPTUNESEAL approved ISO 17712:2013



CABLESEAL RFID ANTITAMPER

Besides having all the same features of the RFID LOGISTIC seal CABLESEAL RFID ANTITAMPER records in its memory if it has been tampered by activating the status TAG TAMPER ALARM when it is read.

Built from the same parts of the Mechanical Seal CABLESEAL approved ISO 17712:2013



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ANTI TAMPER SPECIALISTS