Sealys Tachograph

Improved road safety with Europe’s most widely used digital tachograph solution from Gemalto

Since 2006, all newly registered trucks and buses in the European Union must be fitted with a digital tachograph system secured by smartcards. Tachograph cards are designed to record professional drivers’ activities and help enforce adherence to work hours and speed limits, leading to improved road safety and fair work conditions and competition.
Sealys Tachograph

Gemalto has been heavily involved in the development of the digital tachograph since its inception. Having joined forces with Swiss-based Trüb in 2015, the company is now contributing to projects in 34 of the 50 countries participating in the digital tachograph program. Sealys Tachograph cards from Gemalto are renowned for their proven interoperability, advanced security design and superior reliability.

The Digital Tachograph in Europe
EU Council Regulation (EC) n° 1360/02 specifies a European digital tachograph system, required for all new trucks weighing more than 3.5 tons, and coaches with more than nine passenger seats. These vehicles must be fitted with a tamper-proof motion sensor connected to the ‘vehicle unit’. This is a secured recording device for various driver and vehicle related activity data, including two built-in smartcard readers and a user interface with keyboard, display and printer.

The digital tachograph is the first interoperable cross-border PKI-based project of its kind, encompassing four types of tachograph cards: a card with photo for commercial drivers to store all individual driving activity over the previous four weeks, cards for the company operating the vehicle for fleet management, cards for approved workshops responsible for installing and calibrating motion sensors and cards for the authorities performing roadside checks.

Tachograph cards are used by close to one million transport companies and more than six million professional drivers.

The tachograph system serves both as a vitally important part of national and international road safety and as a valuable tool for freight and passenger transport fleet operators.

Since 2010 the system has also been mandatory in the AETR countries (European Agreement Concerning the Work of Crews of Vehicles Engaged in International Road Transport). Today, 50 countries, comprising all of Europe plus Turkey and the CIS states (Russian Commonwealth of Independent States) have the system deployed.

### SEALYS TACHOGRAPH SPECIFICATIONS

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
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<tbody>
<tr>
<td>Sealys Tachograph application available on secure microprocessor hardware</td>
<td>from two different vendors.</td>
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<tr>
<td>Common Criteria EAL4+ security certification</td>
<td>according to the latest protection profile for tachograph smartcard solutions(CC - BSI-CC-PP-0070-2011).</td>
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<td>Up to 50kB memory to store vehicle and driver activity data</td>
<td>well in excess of the mandatory required storage capacity of 28 days.</td>
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<td>Sealys Premium PC recommended for tachograph cards</td>
<td>genuine polycarbonate card body with laser personalization, qualified for ten years lifetime.</td>
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<tr>
<td>Choice of more than 40 security features for polycarbonate</td>
<td>to prevent any counterfeiting attempts and easily verify card authenticity.</td>
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<tr>
<td>Type approval to confirm full compliance to tachograph regulations</td>
<td>only granted after passing a security evaluation, a functional testing of environmental, electrical, and application aspects and a successful interoperability test of cards with equipment from different vehicle unit vendors.</td>
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Map showing EU and AETR Countries.
Sealys Tachograph

Sealys Tachograph is a complete product offering, designed to meet all the requirements set by EU tachograph regulations.

Depending on the customer’s individual needs, Sealys Tachograph is available either as microcontroller modules on reel, as raw tachograph smartcards in any of the four application profiles, or personalized cards with holders’ individual personal information.

The Sealys contact-based tachograph can withstand intensive usage and harsh environmental conditions such as pronounced temperature changes or strong vibrations. Customers can count on Sealys Premium PC, Gemalto smartcards manufactured from most durable and secure polycarbonate with laser personalization, for an exceptionally high level of reliability and security.

Reports by MEBA, the international association of the tachograph card issuing authorities, show that return rates of Gemalto tachograph cards are much lower than the average for all smartcards in the field (well below 1% for Gemalto vs. around 4% overall).

A trusted future-proof solution

Sealys Tachograph smartcards are designed to fulfill the latest security, interoperability and functional performance requirements. This trusted solution has not only been tested and certified accordingly, but also proven as reliable and compliant with European specifications in millions of products used every day.

Having participated in the European digital tachograph program from the outset, Gemalto continues to be actively involved in the standard setting bodies defining smartcard functionalities, levels of security, and card testing and durability. That’s why customers can expect Gemalto to deliver fully interoperable products that conform to the latest tachograph specification as soon as the necessary type approval process is ready in 2018.

Smooth implementation and operations

For more than ten years, Gemalto has contributed to numerous tachograph projects that now extend to 34 different countries. This long and broad experience ensures smooth running of new tachograph projects and the efficient achievement of mandatory certifications and type approvals.

Gemalto also has the capabilities necessary to deliver turnkey solutions, thanks to specialized integration services and its flexible Coesys system offering. As a result, resources are saved and lead-times shortened for the introduction of tachograph cards in the field.

NEW SEALYS TACHOGRAPH SPECIFICATIONS

Tachograph regulation (EU) n° 165/2014, coming into force in 2016, mandates enhanced features for digital tachograph systems:

- Connection to Global Navigation Satellite System (GNSS) data
- Remote roadside checks via wireless Dedicated Short Range Communication (DSRC)
- New Intelligent Transport Systems (ITS) interface for external data exchange
- Updated security framework with stronger cryptography
- Full backward-compatibility

Detailed technical provisions, necessary to ensure uniform application of the new regulation, are expected to be adopted by the EU Commission in 2016.

First type approved and fully operational products will become available in 2018. Beginning in 2019, newly registered vehicles have to be equipped with this second generation tachograph system. However, first generation tachograph cards still to be issued till 2019 don’t have to be exchanged before the end of their original five-year validity period.

Having participated in the European digital tachograph program from the outset, Gemalto continues to be actively involved in the standard setting bodies defining smartcard functionalities, levels of security, and card testing and durability. That’s why customers can expect Gemalto to deliver fully interoperable products that conform to the latest tachograph specification as soon as the necessary type approval process is ready in 2018.

Alternatively, for customers seeking hassle-free issuance without the need to invest in any systems or processes, Gemalto offers Allynis managed services, where personalized tachograph cards are directly delivered to end-users within an agreed timeframe.

In 2012 Gemalto was selected by the United Kingdom’s Driver and Vehicle Licensing Agency (DVLA) to provide over 40 million Sealys secure cards in a direct contract with the DVLA. Gemalto’s scope of supply includes driving licence cards, professional driver qualification cards (DQC), all variants of the tachograph cards and also the UK’s biometric residence permit cards.
ABOUT TRÜB AND GEMALTO

Gemalto is the world leader in digital security with 2014 revenues of €2.5 billion. In the public sector, Gemalto provides secure documents (including passports, national IDs, residence permits, driving licenses and healthcare cards), robust identity solutions and services for more than 100 government programs worldwide.

As pioneers both in polycarbonate technology and tachograph solutions, Gemalto and Trüb are now joining forces to offer unparalleled experience and expert knowledge in these areas. Created in 1859, Trüb is synonymous with quality, precision and security for high-end polycarbonate documents – and renowned for its unique security elements, designed in Switzerland. Combined, the company is now contributing to 34 tachograph implementations (out of a total of 50 countries participating in the digital tachograph program) and provides polycarbonate cards for national initiatives in more than 50 countries.