Fact Sheet

**DTCO 4.0: The Smart Digital Tachograph**

**The new Tachograph Regulation (EU) 165/2014 comes into force in mid-2019. All newly registered trucks must then have a smart, digital tachograph on-board. Continental developed the DTCO 4.0 under its VDO product brand to meet the new statutory requirements.** **This new version also adds numerous functional extensions – an overview:**

**DSRC antenna technology**

* The EU guideline calls for a standardized DSRC (Dedicated Short Range Communication) interface that makes on-road inspections more efficient for all parties involved.
* After suitable authentication, the DTCO 4.0 wirelessly transmits the following from the moving vehicle to the devices of the inspection officer: vehicle and calibration data, information on safety violations and any malfunctions that have occurred.
* The DTCO 4.0 transmits data via its small windshield-mounted antenna. Continental is forging new paths in technology. Instead of integrating all the intelligence for DSRC functionality in the antenna, as is usual, Continental has integrated it in the tachograph. Furthermore – unlike other solutions found in today’s market – this did not require any modifications to the vehicle’s own electrical/electronic systems. This makes low-cost and problem-free retrofitting possible.

**GNSS interface**

* The regulation specifies the interface to a global navigation satellite system (GNSS). The DTCO 4.0 supports the European GNSS Galileo as well as GPS and Glonass.
* The position data is automatically logged at the start and end of the shift as well as after three hours of driving time and after every change in activity.
* The advantages: better transparency in monitoring; in addition, position data taken directly from the tachograph can be used to assist in fleet management.

**ITS interface**

* The ITS (Intelligent Transportation Systems) interface provides a lot of useful information from the DTCO 4.0 via a standardized interface.
* More than 70 types of information is available over this interface, which enables even more efficient transport planning.
* Lawmakers have only specified the ITS interface as an option – however, Continental has implemented it as a standard feature.

**New public key encryption system**

* In the future, enhanced cryptographic security mechanisms will be required which necessitate a new encryption technology.
* Affected by this are communications between the speed sensor and the digital tachograph as well as tachograph map communications.
  + Continental has developed a new KITAS 4.0 encoder. Combined with the DTCO 4.0, it represents a system unit and fulfills very stringent legal requirements.
  + The maps now support two encryption technologies. Therefore, existing driver cards and business cards can continue to be used with DTCO 4.0 up to their expiration date.

**Products and services related to the tachograph**

* For its new DCTCO 4.0 product, Continental has adapted its download tools, the VDO TIS-Web fleet management solution and its tester devices and training programs for workshops to the new statutory requirements.