

## The Smart Tachograph DTCO® 4.0e

The function update for the smart tachograph DTCO<sup>®</sup> 4.0e deals with the preliminary stage of cabotage for international transport such as border crossing, working time and weight recording, with transfer of confidential data to the data management software TIS-Web<sup>®</sup>. In addition to usability enhancements, additional data records for the TIS-Web<sup>®</sup> data management system have been integrated.



### **Preselected country International transport**

Preselected country (Cabotage light) via the GNSS signal.

- The DTCO<sup>®</sup> will propose to the driver the current country for a begin /end country entry via the DTCO<sup>®</sup> menu and the begin country entry at the end of manual entry
- In addition the last regions entered regions will be stored for manual entry (Spain)
- A first implementation step towards mobility package I (border crossing)

When used twice a week for 50 weeks per year, this results in a time saving of

### 58 minutes per year

Easy to use, no false start/end land entries!



### Working time directive 2002/15 EG

### The DTCO® supports two new working time counters (daily /weekly working time)

that are shown in a new display. Moreover, two warnings are available when the driver reaches a configurable limit of working time. Interpretation of availability time can be configured.

- 1. Consistent working time (duration of the currently set working time without rest period).
- 2. Daily working time (total working time since the last day or weekly rest period).
- 3. Cumulative rest period (sum of the resting times during the current working hours).
- 4. Current weekly working time (total of the currently adjusted working hours for the current calendar week up to current time).



# Support of OBW functions according to directive (EU)719/2015 and regulation (EU) 2019/1213

Recording the total vehicle weight and transferring the data to TIS-Web®.

- $\bullet$  Communication protocol between Motor Vehicle Unit (MVU) and  $\mbox{DTCO}^{\circledast}$   $\bullet$  Display of
  - total weight of the vehicle and
  - technically permissible maximum loaded mass
- OBW information is available on CAN via diagnostic parameters

4x1 working time continuous working time \* 04h15 401 driving time daily driving time 24h 03h15 401 rest in daily/weekly rest time →**ь**01h45 401 driving time weekly driving time I 01h45 401 driving time two-week driving time ∥ 01h45

The DTCO<sup>®</sup> can be configured to display warnings for:



# Card insertion within the same calendar minute

With the DTCO<sup>®</sup> 4.0e you can immediately reinster the card and start the manual entry.

If the manual entry is completed within one minute change, a "please wait" message will be displayed on the screen with the remaining seconds.

When used twice a day, 6 days per week, 50 weeks per year, this results in a time saving of

#### 60 minutes per year



welcome

12:31.

10:31UTC



### Combined welcome screen

With DTCO 4.0e, the "Welcome" and "Driver Name" screen are combined, thus the time before the driver is able to perform manuel entry is shorter.

#### Standard case- Reduction 3 seconds per use.

If used twice a day, 6 days per week for 50 weeks per year, this results in a time saving of:

#### 30 minutes per year

Multi-drivers – Reduction 3 minutes per day.

If used 6 days a week for 50 weeks per year, this results in a time saving of:

900 minutes per year

# Timeout for the manual entry is increased to 10 minutes

### Better usability of the device.

If used twice a day, 6 days a week for 50 weeks a year, this results in a time saving of:

Avoidance of any unintentionally card entries!

# Faster process for manual entry in multi-driver mode



# Faster VDO counter availability after card insertion

#### Faster and more robust VDO Counter.

In total, a time saving of 228 minutes (3h 48min) in standard mode and 1698-1998 minutes (28h 18min - 33h 18min) in multi-driver mode is possible.



### "Ready to drive" screen display

The DTCO<sup>®</sup> indicates to the driver after manual entry when the driver is allowed to start driving and if the DTCO<sup>®</sup> is in single or multi-driver mode.

Reduction 3 seconds per use. If used twice a day, 6 days a week at 50 weeks a year, this results in a time saving of

30 minutes per year

### Faster card ejection

#### Optimized process

If used twice a day, 6 days per week for 50 weeks per year, this results in a time saving of:

#### 50 minutes per year



# Additional data sets for the TIS-Web<sup>®</sup> data management system

The status of the following parameters is available on the CAN bus and can be read by data management systems:

- Onboard Weighing (OBW) data
- Status of Ferry/Train flag
- Driver1 name
- KITAS 4.0 Sensor data (serial number, housing seal serial number)

### With one driver change.

Reduction 2-3 minutes per day. If used 6 days a week for 50 weeks a year, this results in a time saving of:

### 600-900 minutes per year

Your local contact

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### Upgrade for the DTCO<sup>®</sup> 4.0 is available

The DTCO<sup>®</sup> 4.0e uses the same efficient and proven hardware platform as the DTCO<sup>®</sup> 4.0.

Existing DTCO<sup>®</sup> 4.0 can be upgraded to DTCO<sup>®</sup> 4.0e in workshops without device replacement. Licenses will be available on request.

