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# Tachometer Simulator

## TSU 1391

Modern commercial vehicles are often equipped with the MTCO 1324 tachograph which calculates the speed via the intelligent motion sensor KITAS and transfers the information per CAN Bus to an instrument cluster. If there is no duty to use the tachograph, e.g. within the export, it is possible that the simple tachometer simulator unit TSU 1391 is used instead of the MTCO 1324. Concerning the vehicle electrical system the TSU 1391 works similar to the MTCO 1324 and governs all necessary data to achieve a correct display of speed, power and time. As a result the vehicle electrical system can be completed cost efficiently. Alternatively the TSU 1391 works together with the modern intelligent motion sensor or the conventional sensor KITAS such as type 2159. Via the testing- and programming interface it is possible to program specific figures including size, time and manufacturer's instructions.

The internal running time (Real Time Clock RTC) is battery-buffered and can be changed by the driver using two buttons located on the front panel.

In order to drive peripheral devices the well known electrical outputs such as v-pulse and 4 pulse/m are continuously available.

### Features

- Replaces present MTCO and future DTCCO tachograph
- Plug compatible to MTCO 1324
- ISO 7736 radio compartment format
- Battery-buffered Real Time Clock (RTC) with self-acting change from summer to winter time
- Pulse generator types: 2159, 2170
- Time adjustable by user
- Captive testing- and programming plug device cover plate

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TSU 1391

## Technical information (standard version)

Measuring range	220 km/h
Operating temperature	-25 ... +70 °C
Storage temperature	-40 ... +85 °C
Operating voltage	24 volts
Pulse range	4,000 to 25,000 Imp/km
Inputs/Outputs	v-sensor, v-pulse, programming-, instrument interface (CAN), 4 Imp/m
Accuracy	speed according to RL 75/443/EWG, distance +/- 1 %, time +/- 5 sec/day
EMV/EMC	RL 95/94/EG ISO 7637
Housing	steel, galvanised
Weight	~ 650 g
Mounting frame	An assembly frame according to ISO 7736 is required for mounting

## Mounting Dimensions (in mm):

