

PikoTest Product



PikoTest

**Unit for the test of the
FMS-Standard
interface for commercial
vehicles**

FMS-Standard



Information about the FMS-Standard

Information about the FMS-Standard

Major truck manufacturers agreed to give third parties access to vehicle data. In January 2002 two more truck manufacturers joined the fms-standard group:

Daimler

MAN

Scania

DAF Trucks

IVECO

Volvo Trucks and Renault Trucks

Download Area

FMS-Conformance

Press information

Links to truck manufacturer

Contact

FAQ

They have designed a common interface as an open standard which will be supported by these leading truck manufacturers.

The FMS-interface is an optional interface of different truck manufacturers. Supported information is dependent upon vehicle equipment. For the full information set, additional Electronic Control Units (ECU) may be required. Please contact the manufacturer or your dealer.

Please observe that a direct connection to the vehicles' internal CAN bus is unwanted by the manufacturers, and may have impact on warranty coverage! Please also see the [Letter to European Institutes](#) (PDF format).

The FMS-interface of each manufacturer is the interface to internal CAN bus information described in the FMS-Standard description. If you connect to the FMS-interface you will be responsible not to disturb the function of the FMS-interface. For further information, please see the relevant SAE and ISO 11898 documents.

The truck manufacturers have agreed to have as well a common connector for the FMS-interface / remote download from beginning of year 2009. Please contact the manufacturer or your dealer.

In addition to the FMS-interface description the major truck and digital tachograph manufacturers have defined a secure and legal solution for the remote download of data from the digital tachograph.

In the download area you find a description of the FMS-Standard, the description of the common connector and the first Beta-Version of the interface description of the "remote download" for digital tachographs. You need to register first to get your password for the access. There will be **no fee** for the access to the download area.


The development of FMS-standard is now under the umbrella of [ACEA](#). The name of the group is "Heavy Truck Electronic Interface Group" and meets regularly to discuss the needs of the FMS-standard.

Please find here the information about FMS-Standard in buses and coaches [Bus-FMS-Standard](#).



Responsible:
LogiCom GmbH
Gautinger Str. 51
D-82152 Krailing
info@logicom.de

FMS-Standard Present Situation



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The Free Encyclopedia

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Fleet Management System

From Wikipedia, the free encyclopedia

The **Fleet Management Systems Interface (FMS)** is a standard [interface](#) to vehicle data of commercial vehicles. The six European manufacturers [Daimler AG](#), [MAN AG](#), [Scania](#), [Volvo](#) (incl. Renault), [DAF Trucks](#) and [IVECO](#) have developed the so called FMS-Standard in 2002 to make manufacturer independent applications for telematics possible.

The following data are broadcast at the FMS interface:

- Vehicle speed (wheel based)
- Vehicle speed (from tachograph)
- Clutch switch (on/off)
- Brake switch (on/off)
- Cruise control (on/off)
- PTO (Status/Mode)
- Accelerator pedal position (0–100 %)
- Total fuel used (litre since life time)
- Fuel level (0–100 %)
- Engine speed
- Axle weight (kg)
- Total engine hours (h)
- FMS-Standard Software Version (supported modes)
- Vehicle identification number (ASCII)
- Tachograph information
- High resolution vehicle distance
- Service distance
- Engine coolant temperature

The data are coded according SAE J1939. The repetition rate of the data is between 20ms (e.g. engine speed) and 10 sec. (e.g. vehicle identification number)

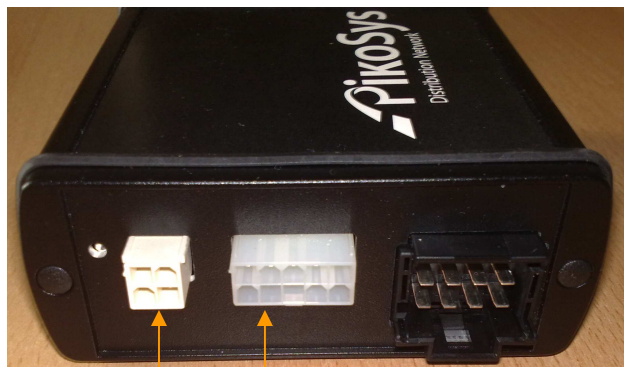
With the FMS-Standard it is now possible to have manufacturer independent applications and evaluations of the data.

The amount of data is dependent on the manufacturer and model of the vehicle and might be different. If some data are not available at the interface they are marked as not available.

According a note from the truck manufacturers the FMS-Standard is seen as a world wide standard. A direct connection to the internal vehicle bus system is not permitted by the truck manufacturers and could lead to the loss of warranty. Meanwhile some manufacturers are quite restrictive in their workshops and cut all unknown connections to the internal bus system

According ACEA ca. 160.000 vehicles were fitted with a FMS-Standard Interface in the year 2007. The FMS-Standard was as well the base for the Bus-FMS-Standard for buses and coaches which was published in the year 2004.

PikoTest Description

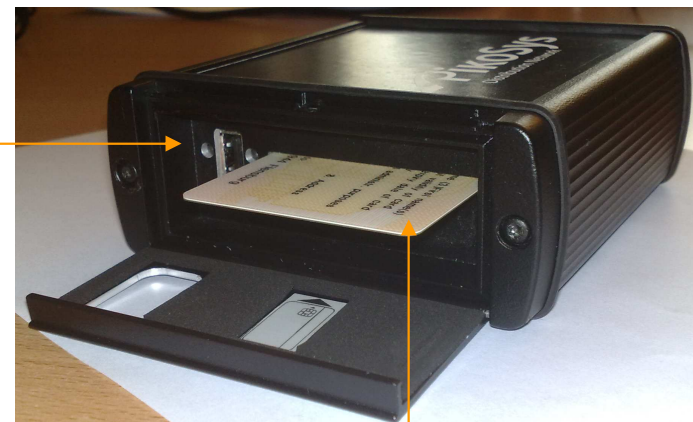


Serial Interface

Vehicle connection
Standard connector to
all brands (FMS)

CAN-output for data
(FMS) and power supply
for bord computer

2* LED Status



Inserted FMS card

USB-Stick for data storage
(closed front lid)



PikoTest Technical Data



Single unit for all vehicle brands with FMS-Interface

- **2* CAN J1939**
- **1* USB**
- **1* serial (RS 232)**
- **12V/24V power supply**
- **64 MB internal memory**

PikoTest Validation

Overview	Details	Details PGN	Details SPN
PGN name:	SPN name:		
Cruise Control/Veh. Speed (CCVS)	Wheel based speed	Clutch switch	Brake switch
Electronic Engine Contr. 2 (EEC2)	Acc. pedal position	Cruise control active	PTO
Fuel Consumption (LFC)	Total fuel used		
Dash Display (DD)	Fuel level		
Electronic Engine Contr. 1 (EEC1)	Engine speed		
Vehicle Weight (VW)	Axle location	Tire location	Axle weight
Engine Hours, Revolutions (HOURS)	Total engine hours		
Vehicle Identification (VI)	Vehicle id. number		
FMS-standard interface (FMS)	Requests supported	Diagnostics supported	SW-version supported
High Res. Vehicle Dist. (VDHR)	High res. vehicle dist.		
Service (SERV)	Service distance		
Tachograph (TCO1)	Drive recognize	Driver 1 working state	Driver 2 working state
	Driver 1 time rel. state	Driver 2 card	Driver 2 time rel. state
	Handling information	System event	Tacho vehicle speed
Engine Temperature (ET1)	Engine coolant temp.		

Easiest validation via Internet

- www.fms-test.com
- free access to the validation
- easy print-out of the result
- validation to the details possible
- no change necessary if standard is changed

PikoTest Target Group

- ✓ **Workshops**
- ✓ **Fleet management suppliers**
- ✓ **Vehicle manufacturers (trucks, buses and coaches)
e.g. for problem finding in customer vehicles**

PikoTest Advantage

- ✓ **Easy to handle**
 - ✓ no training necessary
 - ✓ easy configuration
 - ✓ connect, drive, evaluate
- ✓ **One test for all brands (brand/type independent)**
- ✓ **long time test runs (up to several days) possible**
 - ✓ PikoTest can be between FMS-gateway and FMS-system
- ✓ **Possibility to have access from any location (internet required)**
- ✓ **Easy Changes / addition to the test without updating the test system at the workshop**
- ✓ **Indication whether "remote download DTCO" is possible / supported (in preparation)**