

Some informations about the FMS-standard interface

The Bus-FMS-Standard interface is supported by these bus manufacturers:

EvoBus

NEOMAN Bus

Scania CV

Volvo Bus Corporation

IrisBus S.L.

VDL Bus International

The following overview gives a first information about the amount of data which are supported by each manufacturer and agreed to start to deliver from the year 2005.

The interface is designed according to the SAE J1939 standard.

Third parties are able to connect to and receive data from the Bus-FMS Standard interface.

It is indicated by the SW identifier which kind of modes are supported by the Bus-FMS-Standard interface.

This is the minimum amount of data broadcasted on the interface.

The PGN no.s refer to the SAE J1939 standard.

If you are a registered user of the interface description you will receive an email automatically if there are any additions/changes etc.

There is no fee for the registration - so please feel free to register for the actual information.

For more information or technical questions please use the contact page of :

www.bus-fms-standard.com

BUS-FMS-Standard

Bus-FMS-Standard interface	(signal) name	SAE name (PGN name)	Parameter Group Number	SPN	format	resolution	accuracy	mode	rep. rate	remarks / comments	
page no	e.g. mileage, fuel consumption	if exists in SAE if not tbd	PGN if exists if not tbd	if exists in SAE if not tbd	e.g. km			b = broadcast r = request d = diagnosis	in ms		
4	Brake switch	CCVS	FEF1	597	on/off	-----	-----	b	100	two bit status	-
4	vehicle speed (wheel based)	CCVS	FEF1	84	km/h	1/256/km/h/bit	+/- 5%	b	100	may differ from TCO1	-
4	cruise control status	CCVS	FEF1	595	on/off	-----	-----	b	100	two bit status	in busses with no cc => send as not available
4	clutch switch	CCVS	FEF1	598	on/off	-----	-----	b	100	two bit status	in busses with automatic gear => send as not available
4	Parking Brake Activation	CCVS	FEF1	70	Status	-----	-----	b	100	-	-
5	accelerator pedal position	EEC2	F003	91	0-100%	0,4%/bit	+ / - 10%	b	50	1 Byte DC will calculate from torque demand	-
6	total fuel used	LFC	FEE9	250	Liter	0.5 L/bit	+ / - 10%	b	1000	4 bytes, 0 to +2 105 540 607,5 L	-
7	fuel level	DD	FEFC	96	0 -100%	0.4%/bit	+ / - 20%	b	1000	1 Byte	-
8	engine speed	EEC1	F004	190	RPM	0.125 rpm/bit	+ / - 10%	b	20	2 Byte, 0-8031,875 rpm	-
9	total engine hours	HOURS	FEE5	247	h	0.05 h/bit	+ / - 10%	b	1000	4 bytes, 0 to 210 554 060,75 h	-
10	vehicle identification number	VI	FEEC	237	ASCII	-----	-----	b	10000	variable, max 200 char. Will be sent every 10 sec	-
11	fms-standard interface identity	FMS	FDD1	2804-2806	ASCII	-----	-----	b	10000	indicator for diagnosis/request support and SW version	-
12	High resolution total vehicle distance	VDHR	FEC1	917	km	0,005 km/bit	+ / - 10%	b	1000	4 bytes, 0 - 21 055 406 km without TCO	resolution may be not within the SAE values
13	tacho information	TCO1	FE6C	see details below	-----	-----	-----	b	50	Byte 1-4, and 7,8	for details see folder "TCO1-details"
13	Tachograph vehicle speed	TCO1	FE6C	1624	km/h	1/256/km/h/bit	acc. EU regulations	b	50	2 bytes	-
13	Byte 1 : drive recognize	TCO1	FE6C	1611	Status	-----	-----	b	50	-	-
13	Byte 1 : driver 2 working state	TCO1	FE6C	1613	Status	-----	-----	b	50	-	-
13	Byte 1 : driver 1 working state	TCO1	FE6C	1612	Status	-----	-----	b	50	-	-
13	Byte 2 : overspeed	TCO1	FE6C	1614	Status	-----	-----	b	50	-	-
13	Byte 2 : driver 1 card	TCO1	FE6C	1615	Status	-----	-----	b	50	-	-
13	Byte 2 : driver 1 time rel. states	TCO1	FE6C	1617	Status	-----	-----	b	50	-	-
13	Byte 3 : driver 2 card	TCO1	FE6C	1616	Status	-----	-----	b	50	-	-

BUS-FMS-Standard

Bus-FMS- Standard interface	(signal) name	SAE name (PGN name)	Parameter Group Number	SPN	format	resolution	accuracy	mode	rep. rate	remarks / comments	
page no	e.g. milage, fuel consumption	if exists in SAE if not tbd	PGN if exists if not tbd	if exists in SAE if not tbd	e.g. km			b = broadcast r = request d = diagnosis	in ms		
13	Byte 3 : driver 2 time rel. states	TCO1	FE6C	1618	Status	-----	-----	b	50	-	-
13	Byte 4 : direction indicator	TCO1	FE6C	1619	Status	-----	-----	b	50	-	-
13	Byte 4 : tachograph performance	TCO1	FE6C	1620	Status	-----	-----	b	50	-	-
13	Byte 4 : handling information	TCO1	FE6C	1621	Status	-----	-----	b	50	-	-
13	Byte 4 : tachograph event	TCO1	FE6C	1622	Status	-----	-----	b	50	-	-
14	engine coolant temperature	ET1	FEEE	110	°C	1° / bit (-40° Offset)	-----	b	1000	-40° to 210°	-
15	Ambient Air Temperature	AMB	FEF5	171	°C	0.03125 deg C/bit	+ / - 10%	b	1000	-273° to 1735°	-
16	ramp/wheel chairlift status	DC	FE4E	1820	Status	-----	-----	b	100	-	-
16	state of doors: door x closed / open	DC	FE4E	1821-TBD	Status	-----	-----	b	100	-	requested to SAE
17	Time / date	TD	FEE6	959 - 964	Date / Time	-----	-----	b	10000	source tachograph	source tachograph / not radio controlled
18	service brake air pressure, circuit 1	AIR1	FEAE	1087	kPa	8 kPa/bit	+ / - 10% (of full scale)	b	1000	0-2000kPa	-
18	service brake air pressure, circuit 2	AIR1	FEAE	1088	kPa	8 kPa/bit	+ / - 10% (of full scale)	b	1000	0-2000kPa	-
19	alternator 1 status	AS	FED5	TBD	Status	-----	-----	b	1000	-	requested to SAE
19	alternator 2 status	AS	FED5	TBD	Status	-----	-----	b	1000	-	requested to SAE
19	alternator 3 status	AS	FED5	TBD	Status	-----	-----	b	1000	-	requested to SAE
19	alternator 4 status	AS	FED5	TBD	Status	-----	-----	b	1000	-	requested to SAE
20	gear (current)	ETC2	F005	523	Status	1 gear / bit (- 125 offset)	-----	b	100	-	-
20	gear (selected)	ETC2	F005	524	Status	1 gear / bit (- 125 offset)	-----	b	100	-	-
21	load shipped (bellow pressure)	ASC4	FE58	1725-1727	kPa	0.1 kPa/bit	-----	b	100	-	-

* Remark: blue colour marks the proposals to SAE