

Telematic Fuel Management System ECOsens® online

Based on more than 10 years of experience in telematic and fuel monitoring business, we developed an integrated online system providing many features, with many open chances for the future.

In addition to the pickup of analogue signals from any truck or any machine, the system supports several new standards of data acquisition from digital tachograph and vehicle data bus like CAN/FMS.

Communication with the server will be handled by internet (GPRS), and in case of cell network problems the blackbox can also be controlled by SMS commands. Under normal condition the box will be always online, and sends new data immediately without any mentionable delay. Position will be determined alongwith the GPS standard using a state of the art receiver.

As an upgrade of the common telematic features, the system can be connected to ECOsens fuel sensors, which are optimized for accurate and reliable consumption calculations as well as for fuel fraud detection. Consumption calculation will be more accurate and flexible compared to the data provided by vehicles using the the FMS interface.

The second main benefit is that the independent sensors will also provide data when ignition is switched off, and this enables detection of stolen fuel during parking periods of the vehicle, as well as the dispatch of alarm and information messages according to the specific requirements.



Fuel Sensor (1 pcs. Each Fuel Tank)

- Resolution Level: 0 - 512 (9 Bit) Solid State
- Resolution Temperature: 0,5°C
- Supply: 12 VDC/ 4 mA by Telematic Blackbox/Interface
- Standard Lengths: 370/415/465/485/550/610/690/977 mm
- Specific Lengths: 250 - 1.500 mm
- Installation: Fuel Sensor Bajonet 55/50mm
- Accessories: Connection Cable 9m, O Ring Seal 55mm
- Material: POM-GV20 (Head), Aluminium (Support Pipe)

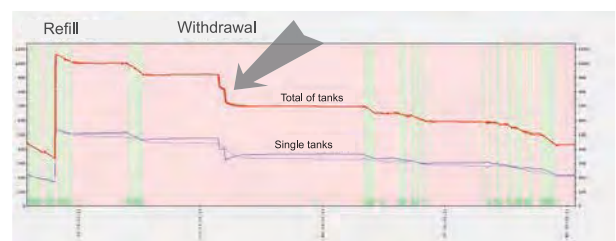
Reporting Examples

Week	Period Start	km		km/h	Work	Hours			Stop	Idle L/h	Hydraulic L/h	Consumption exHydr L/100km
		Start	Drive km			Drive h	Idle h	Hydr h				
11-01	02,01	195,548	3,359	76	51,9	43,9	8,0	132	31	0,6		1,058 31,5 31,5
11-02	09,01	198,907	3,224	75	53,6	43,1	10,5	96	46	0,9		1,028 31,9 31,9
11-03	16,01	202,131	3,291	77	56,0	42,9	15,1	100	67	1,2		1,019 31,0 31,0
11-04	23,01	205,422	2,101	69	41,1	30,3	10,8	162	44	1,1		647 30,8 30,8
11-05	30,01	207,523	2,864	74	49,5	39,0	10,5	82	43	0,9		967 33,8 33,8
11-06	06,02	210,387	3,276	74	54,4	44,4	10,0	90	39	0,7		984 30,0 30,0
11-07	13,02	213,663	3,212	75	54,3	42,8	11,5	116	46	0,8		1,070 33,3 33,3
11-08	20,02	216,875	3,362	77	54,0	43,7	10,3	107	38	0,7		1,074 31,9 31,9
11-09	27,02	220,237	3,010	75	50,6	40,3	10,2	93	41	0,8		971 32,3 32,3
11-10	06,03	223,247	2,526	44	73,8	57,0	16,8	114	64	0,9		788 31,2 31,2
11-11	13,03	225,773	3,550	76	49,9	46,6	3,3	95	13	0,3		1,102 31,0 31,0
TRUCK999		228,323	33,775	71	591	474	117	108	472	0,8		10,708 31,7 31,7

Fuel consumption for any selected time period

Date	Time	Event	Mileage	L/100km	Refill L	Invoiced L	Deviation L	Automatic Check Status
16.03.2011	15:12	Refill	228.909,5	31,2	961			not checked
14.03.2011	05:14	Refill	225.840,1	31,7	901			not checked
04.03.2011	06:35	Refill	222.965,8	33,1	683			not checked
01.03.2011	07:01	Refill	220.885,6	31,0	781			not checked
28.02.2011	09:34	Refill	220.519,8	31,6	299			not checked
21.02.2011	20:43	Refill	217.490,2	23,5	967	975	8	check o.k.
15.02.2011	17:36	Refill	214.583,8	31,3	385	380	-5	check o.k.
11.02.2011	12:26	Refill	213.358,7	30,2	762	765	3	check o.k.
07.02.2011	20:51	Refill	210.832,1	32,9	629	630	1	check o.k.
02.02.2011	06:33	Refill	208.919,2	31,4	522	524	2	check o.k.
28.01.2011	18:40	Refill	207.244,6	30,4	643	641	-2	check o.k.
21.01.2011	09:57	Refill	205.142,7	31,9	771	871	100	Invoice too high
17.01.2011	15:01	Refill	202.749,1	33,0	758	765	7	check o.k.
12.01.2011	07:32	Refill	200.418,9	29,0	841	841	0	check o.k.
05.01.2011	18:11	Refill	197.533,0	33,3	955	953	-2	check o.k.
04.01.2011	19:17	Refill	196.648,3	32,3	197	200	3	check o.k.
28.12.2010	18:28	Refill	194.008,9	29,9	426	420	-6	check o.k.
23.12.2010	14:31	Refill	192.618,7	32,8	885	883	-2	check o.k.
17.12.2010	12:37	Refill	189.866,1	30,2	446	445	-1	check o.k.
15.12.2010	08:01	Refill	188.377,5	29,4	436	434	-2	check o.k.
11.12.2010	08:01	Refill	186.905,6	32,6	762	763	1	check o.k.
07.12.2010	07:23	Refill	184.560,0	27,4	693	694	1	check o.k.
06.12.2010	11:33	Refill	184.187,0	32,3	191	200	9	check o.k.
30.11.2010	08:39	Refill	181.767,4	37,9	661	668	7	check o.k.
25.11.2010	05:54	Refill	180.024,4	33,6	504	508	4	check o.k.

Refill list and comparison with fuel invoices (fuel invoice validation)



Fuel fraud detection in case of stolen fuel from fuel tanks (graphic visualization)



Telematic Blackbox with ECOsens Fuel Sensors

- Dimension L x W x H: 82mm x 115mm x 33mm
- Supply: 12-24 VDC
- Signals In: 7 x Analog IN, 3 x Counter, GPS/GSM-Antenna
- Signals Out: 5V/100mA, 2 x Switches
- Communication: 2 x RS232, CAN, Sensor Bus (Proprietary)
- One Wire Bus, GPRS
- Installation: Vehicle Cabin
- User Interface: Optional with Bluetooth or RS232