

Installation Manual ETI Fuel Securing Module

- Important Information
- General Information
 - Datasheet
 - Compatibility
 - Technical Data
 - Ohm values
 - Connection Diagram
 - Final tests for correct delivery
- Troubleshooting

Important Information

Troubleshooting RMA

General Instructions

Troubleshooting RMA

General Information



Datasheet

Voltage	9..30 VDC
Standby power consumption	< 5 mA
Fuse protection	2 A
Fuel sensor ohm value	0..1 k
Output power	1 A max. (Alarm = Ground)
ESD-protection (E/A)	8 kV IEC61000-4-2 Level 4
Operating temperature	-30...+60 °C
conductor cross-section	0,5..1,5 mm ²

Isolation	10 mm
Protection class	IP 20 (EN 60529)
Dimensions (LxBxH)	40 x 40 x 22 mm

Compatibility

- In case of uncertainty or errors always consult the original equipment manufacturer.
- In order to deliver the right module, we ask the customer to provide the vehicle type (modell, construction year) prior to the delivery.
- If the manufacturer has no data for this modell, it is necessary to communicate the fuel tank size (in litres) and to measure the ohm value when the tank is full and the ohm value when the tank is empty.
- If you don't provide this data, we deliver a device with standard settings which might be wrong.
- **NO proper functioning with vehicles with 2 tanks or if the sensors don't deliver OHM values.**

Technical Data

STG-6: normal measurement

0 Ohm = Tank empty / > 80 Ohm = Tank full

STG-3: inverted measurement

0 Ohm = Tank full / > 80 Ohm = Tank empty

Fuel monitoring for 12/24V vehicles with 0..1k - fuel sensors

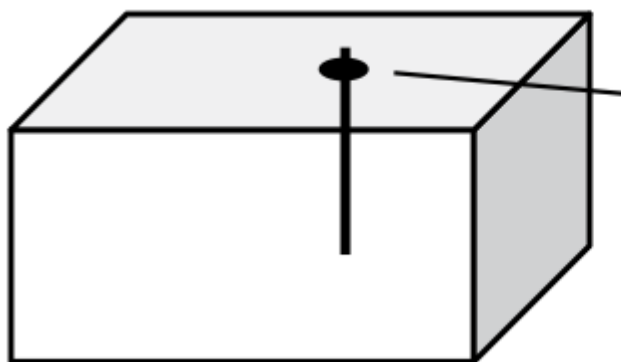
Only is active when ignition is OFF

How it works;

The modules STG-3 and STG-6 will be activated when ignition is OFF and measure the fuel level after a while. If the fuel level decreases, alarm is triggered to the tracking device

Ohm values

You can measure the ohm value with an Ohm-Meter. Connect it to the fuel sensor. If the floater is down (empty), you get the ohm value for the empty tank. If the floater is up (full), you get the ohm value for the full tank.



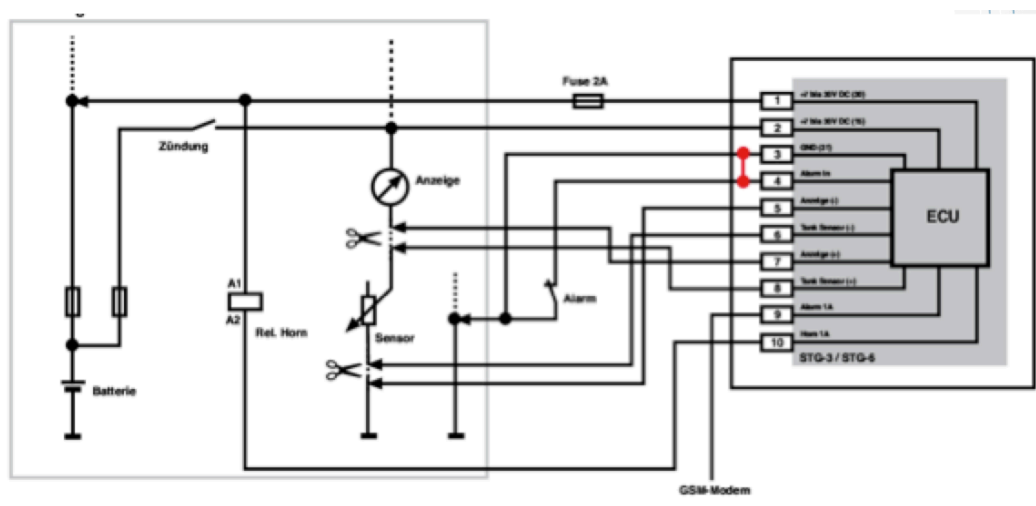
Fuel sensor with floater

The list below is subject to change without prior notice by the manufacturer.

Fuel sensor	Ohm value full	Ohm value empty	STG-Version	Ltr. / Alarm
Mercedes Actros, Axor und Atego	1000 Ohm	3 Ohm	STG-6/15	
DB-Fahrzeuge vor Bj. 7/2007	180 Ohm	3 Ohm	STG-6/4	

IVECO Eurostar, Eurotech, Trukker, Tector und Turbostar	20 Ohm	311 Ohm	STG-3/7	
IVECO Eurocargo	3 Ohm	300 Ohm	STG-3/7	
IVECO Daily	20 Ohm	300 Ohm	STG-3/7	
Tauchrohrgeber TRG/HAT (IVECO)	20 Ohm	311 Ohm	STG-3/7	
Tauchrohrgeber TRG/HAT (Volvo und Renault)	33 Ohm	240 Ohm	STG-3/4	
Volvo	33 Ohm	240 Ohm	STG-3/4	
DAF XF, CF und LF	500 Ohm	10 Ohm	STG-6/9	
Scania 3er-, 4er- und R-Reihe	180 Ohm	10 Ohm	STG-6/4	
Scania HPI-2 Track	180 Ohm	3 Ohm	STG-6/4	
Renault AE, Premium und Midliner	33 Ohm	240 Ohm	STG-3/4	
MAN TGX, TGS, TGA, TGL, L2000, F2000 und F90	8,2 Ohm	73 Ohm	STG-3/3	
Doosan Kettenbagger DX 225 LC Abstufung in 1/10	320 Ohm	250 Ohm	STG-6/4	

Connection Diagram



Connection	Description
PIN 1	+9..30 VDC (permanent power, terminal 30), protection max. 2A fuse
PIN 2	+9..30 VDC (ignition, terminal 15)
PIN 3	Ground (terminal 31)
PIN 4	Alarm input (closed to ground Masse): close to ground!
PIN 5	Fuel gauge (- Minus)
PIN 6	Fuel sensor (- Minus)
PIN 7	Fuel gauge (+ Plus)
PIN 8	Fuel sensor (+ Plus)
PIN 9	Alarm/GSM connect with negative trigger input of tracking device (in case of alert ground is activated) Make sure to use a negative input or to contact the supplier!

Installation instructions

1. Install it at a safe place (protected from water or heat)
2. Use a 2 Ampere fuse.
3. Ohm values on the module must be similar to the values on the fuel sensor

Final tests for correct delivery

see [Installation Tests and Reporting](#)

Make sure that the alarms are working prior to handing over the vehicle to the customer:

- If the ignition is OFF and the fuel tank is depleted, the alert must come within 2-5 minutes (PIN 9 output must show ground for 10 seconds).
- If PIN9 is activated (ground signal), then the GPS Fleet Software must show an alert or input change on one of the digital inputs:

Troubleshooting

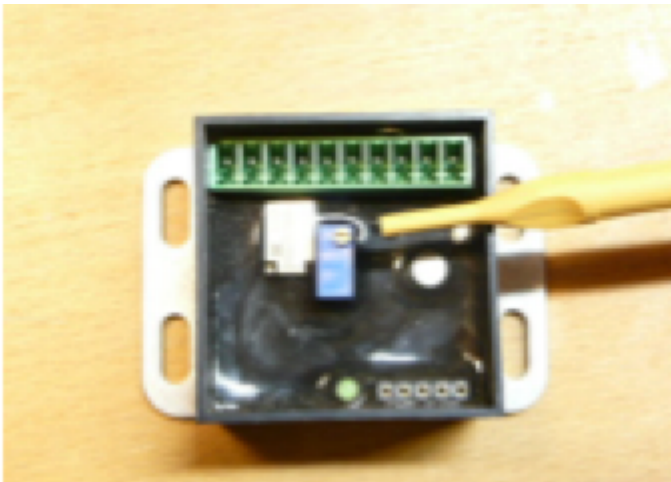
see [Troubleshooting RMA](#)

Please check,

- If the ohm values increase when the fuel tank is lowered or if the ohm values decrease when the fuel level is lowered. .You can also move the floeter of the fuel sensor from top to down to see the ohm value change
- If the ohm value change of the fuel sensor can also be measured at the fuel securing module

Adjust the tolerance:

Turn the module as in the picture shown below:



Do 5 turns clockwise to get a higher tolerance (less alerts).

Don't turn the screw anti-clockwise.