Power supply:

The Fuel-Sensor is supplied with power by the Bus (p²-Bus or EX-Bus). The receiver runs on the same voltage ratio. The Bridge can process all common input voltage ranges (also 2S LiPo direct).

Sensor bekommt die Empfängerspannung

Technical Data:

Weight...........................   50g
Measuring range............   15 – 800 ml/min
Dimensions....................   75 x 40 x 25 mm (L x B x H)
Voltage.........................   6 – 12 Volt
Power…………......…….   <= 20mA
Protocols………………..   EX-Bus, P²-Bus

Exclusion of liability
We cannot monitor compliance with the assembly instructions, the conditions during operation of the Fuel-Sens, or the maintenance of the entire remote control system.
Therefore, we assume no liability for loss, damage or costs that result from the use and operation of the Fuel-Sens or things that are in any way related to it.
Insofar as it is legally permissible, the obligation to pay compensation, regardless of the legal reasons, is limited to the invoice amount for the products from our company that are involved in the event.

We hope you enjoy using the Fuel-Sens!

Sieverstedt,März 2022

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Fuel-Sens (M)
Fuel indicator for CORE/ATOM and JETI

- Receiver voltage from 6 – 12 Volt

- Automatic Protocol Detection

- Status-LED

Operating instructions
This telemetry sensor (for PowerBox P²BUS and Jeti EX-BUS) measures the fuel flow from the tank to the engine or to the turbine and can therefore reliably display the tank level. The sensor is suitable for all common fuels (petrol, kerosene, diesel, methanol...).

Supported Protocols
The sensor is suitable for the EX-BUS and the P²BUS. When plugged into the bus, the sensor automatically recognizes the protocol. No manual setting is necessary. Only with the Jeti, the E-output on the receiver has to be set to EX-BUS.

Let's go - installation in the model:
The assembly in the model can be done easily with the three enclosed screws. We recommend horizontal installation, but in principle any orientation is possible. When installing in the fuel line, please note the diligence direction. This is clearly indicated on the case.
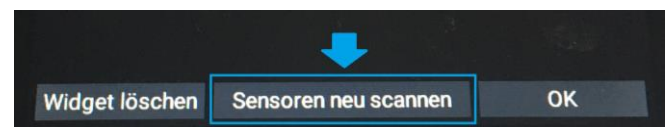

Let's go - connection to the RC system:
Connect the sensor to the BUS of your receiver. When the receiver is switched on, the LED in the sensor lights up red for 1 second. It then flashes once or twice, depending on the protocol detected (1x P²BUS, 2x EX-BUS).

The sensor is now ready for use.
You may have to start a rescan of the sensors in the CORE/ATOM. And look for new sensors at Jeti.

Configuration:

Tank volume and reserve

The sensor needs to know the size of the tank being used and the desired amount of reserve. The displays are calculated with these values and the alarm limit for reserve is defined. You can easily make the settings via your transmitter. With PowerBox you use the sensor menu and with Jeti you use the JetiBox in the transmitter.

PowerBox:

Jeti:

In this example the tank has a size of 400ml. The reserve is set to 200ml and included in the 400ml. As soon as the tank content falls below the set reserve, an alarm is sent to the transmitter.

PowerBox:	Status alarm in Status1
Jeti:	Morsecode E

Reset the fuel gauge

The sensor cannot know if and when refueling took place. You reset the sensor to "Full" via a residual channel. The reset channel can be freely selected (by defaultit is channel 16). You set the channel as well as the tank volume via the menu in your transmitter.

PowerBox:

Create a function in the transmitter with the desired channel (e.g. function=tank reset, servo=16). In this case, the sensor is already set in the same way. If you would like to use a different channel, start the 'Scan-Rest-CH' in the sensor menu and then simply operate the desired switch at the transmitter. The sensor recognizes and saves the new channel.

Jeti:

Use the JetiBox in the transmitter to open the sensor menu. Press the button down to enter the selection. The first parameter is the reset channel. A channel from 1 – 16 can now be selected using the arrow keys.

⚠️ In both systems, make sure that the selected reset channel is set to +100% servo travel.

Calibrate

The Fuel-Sens is already calibrated and should work with an accuracy of ±10ml. Depending on the type of fuel and the hoses used, it may be necessary to adapt the displays to the consumption. If more fuel was consumed than is displayed, please reduce the value in the calibration. If less fuel was used than displayed, increase the value in the calibration.

Runtimes

The sensor also measures the active time. This means you can read how long the engine has been running. Two counters are built in and are shown.

1. The current running time of the engine in minutes
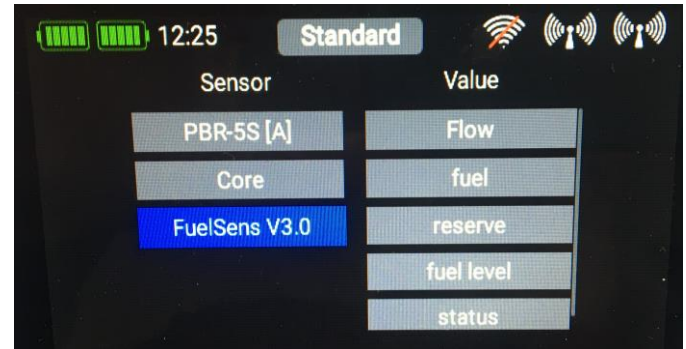2. The total runtime of all flights in hours

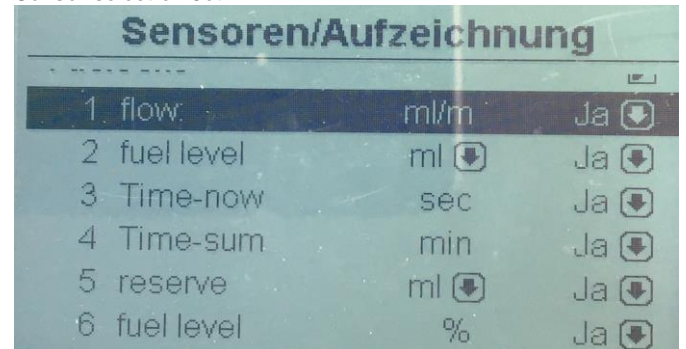You can reset the long-term counter via the menu.

The telemetry displays:

The Fuel-Sens provides four values and a status field. With Jeti there are six values, because Jeti does not support a status field. Use the sensor menu to select the values that are of interest to you and should be displayed.

Sensor selection CORE/ATOM:

Sensor selection Jeti:

Durchfluss / Flow

The current flow in ml/min. The measurement is somewhat delayed, since 10ml must always be consumed before the value is calculated.

Inhalt / Fuel

The current tank content in ml is displayed here. The content is reset to the value set in the setup using the reset channel. When the engine is running, this value steadily decreases.

Reserve / Reserve

The current reserve in ml is displayed here. The content is reset to the value set in the setup using the reset channel. After the content reaches this value, an alarm is generated and the value is reduced while the engine is running.

Füllstand / Fuel Level

The current tank content in %l is displayed here. The content is reset to 100% with the reset channel. When the engine is running, this value steadily decreases.

Status / Time-now, Time-sum

The current running time and the total running time are displayed here. With CORE/ATOM in the status text, with Jeti in two separate fields.
The long-time counter can be deleted in the sensor menu.

Status Display (only for CORE/ATOM)

As long as there is no alarm, the status display shows the running times. If the tank is empty except for the reserve, an alarm is issued here.