

CAUTION: *The solenoid valve is a bistable one that needs only short impulse to toggle. To ensure the correct position of the valve, it gets a short impulse regularly. On ground this can be heard as a quiet click. This is no mal-function.*

The calibration of the fuel sensor was done with fuel-oil mixture based on AVGAS 100LL. Mixtures based on other fuel qualities may lead to deviating indications. Thereby the deviation is largest with full tank and zero with empty tank.

The power-plant instrument can be set to other qualities. The fuel tank must be filled with at least 6 Ltrs (1.58 US Gall) and the power-plant retracted. Press button (9) four times until "Cal i br. ?" appears at the display. Then keep the button (9) pressed for five seconds to perform the calibration.

After the calibration the power-plant instrument assumes that the signal from the fuel sensor corresponds a full tank. With a full tank, the difference between flight and ground attitude is small.

Display- and warning-ranges of the power-plant instrument:

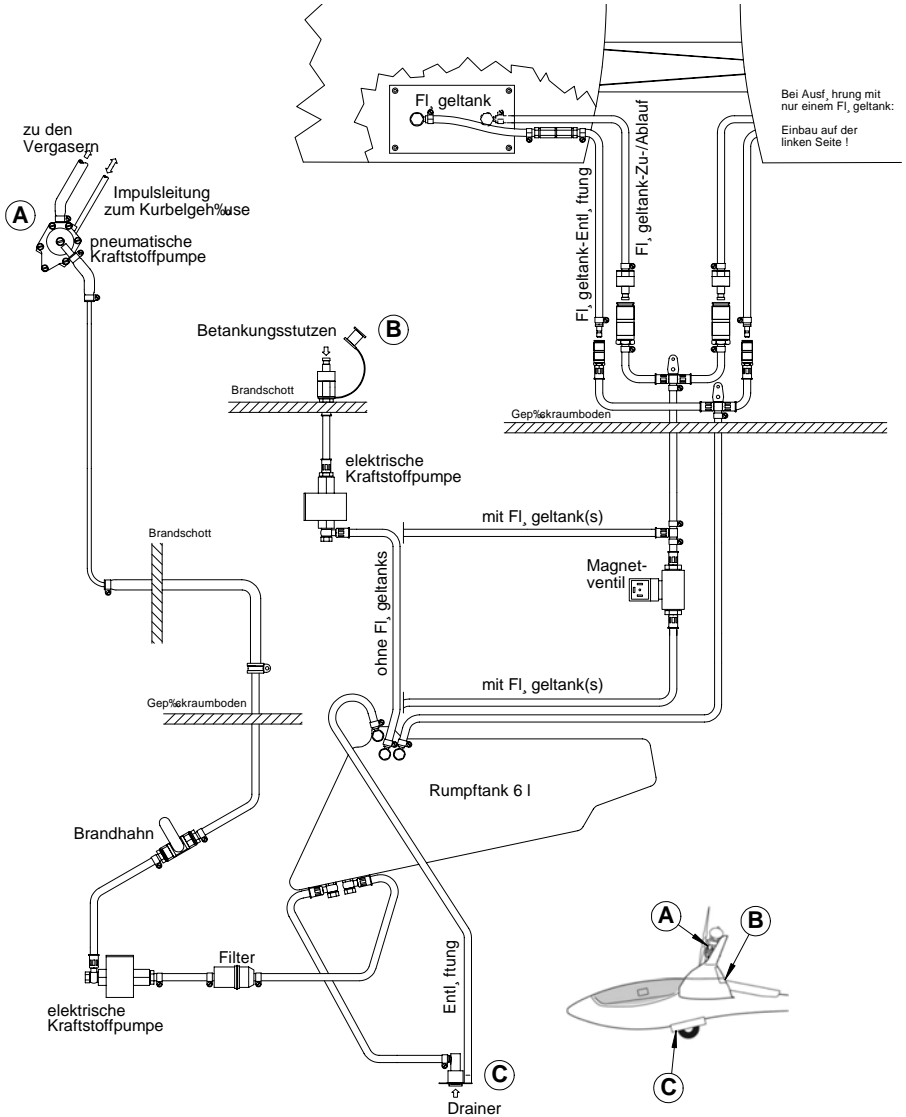
Type	Display range	Optical	Acoustic
Rotational speed	400 – 9990 rpm	See section 2.5	> 4500 rpm permanent alarm
Battery voltage	10 – 15V	< 11,5V LED (5) blinks	< 11,5V permanent alarm
Fuel quantity	0 – 6,3 Ltrs	< 2,5 Ltrs LCD blinks	< 2,5 Ltrs permanent alarm
Valve of wing tanks	If switch (10) is toggled to "AUTO", the valve opens below 3,5 Ltrs in the fuselage tank and closes at 6 Ltrs	LED (11) lights, when valve open	
Elapsed time counter	counts above 2000 rpm		
Electric fuel pump	Runs, when the engine is extended and rotational speed is below 3500 rpm		
Prop brake open and engine not fully extended		LED (7) blinks	Pulsed alarm
Running time of jackscrew		> 20s LED (7) blinks	> 20s pulsed alarm

Rear-view mirror

A rear-view mirror in the cockpit is necessary to check the correct position of the propeller before retracting the power-plant.

7.13 Fuel System

Overview of the fuel system:



The fuel system consists of a fuselage tank at the left hand side between landing gear box and sidewall, containing fuel for half an hour powered flight. The drain is located below the left landing gear door. The tank ventilation also ends there.

Optionally the ASW 28-18E can be equipped with one or two flexible fuel tanks. The fuel tanks deplete themselves into the fuselage tank via a solenoid valve.

A pneumatic fuel pump feeds the engine with fuel, driven by the pulsating crankcase pressure. An electric fuel pump is placed near the fuselage tank, only operating when the engine is extended, the ignition is on and the engine is running with less than 3500 rpm.

By default, a second fuel pump is installed, to refuel the fuselage tank as well as the wing tanks.

Refuelling

The engine must be extended for refuelling. This makes the refuelling coupling in the engine bay accessible. Here the refuelling hose, which is provided in series, is connected and put with its other end into the canister. The pump can be started with a switch at the instrument panel labelled "refuelling pump".

When there is no wing tank installed (i.e. there are no couplings in the baggage compartment and no solenoid valve present) it is only necessary to observe the fuel quantity through the slot behind the backrest and stop the refuelling pump at a level of 6 Ltrs.

If fuel tanks are installed, switch (10) on the power-plant instrument governs, whether wing or fuselage tanks are filled:

Refuelling of the fuselage tank	Refuelling of the wing tanks
Toggle switch „ON“	Toggle switch „OFF“