

FUEL LEVEL MONITORING DEVICE - REFUEL TRANSFER CONTROL UNIT

Intended purpose

The fuel level monitoring device processes the defined maximum fill, empty capacity and decanting signals of the maximum fill and empty capacity sensors in the fuel tanks, and thereby controls the fuel pumps, valves and indicator lights in the refueling and decanting system of the fuel system of the aircraft.

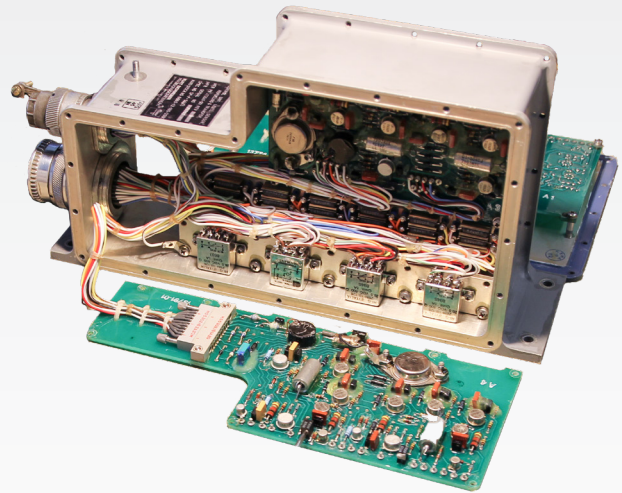
Configuration of the device and technical functionality

The device is hermetically sealed. No display or operating elements are available. The four printed circuit boards in the interior of the device accommodate all the electronic switching circuits.

The device consists of two identical switching circuits for the refueling and decanting process on the left- and right-hand fuselage and external wing tanks, as well as one switching circuit for the refueling and decanting process for the tanks in the front and rear fuselage tank group and one for the left- and right-hand internal wing tanks. The device measures two specific thermistor statuses for the sensors that are located in the external wing tanks and external fuselage tanks.

Services provided by AUTOFLUG

- Servicing and maintenance (for example, dismantling and assembly of assembly groups, servicing of printed circuit boards, cleaning and lubrication, follow-up surface treatment, subsequent improvement of protective varnishing, drying out, rinsing and filling of the device, calibration and settings)
- Repair (replacement of components)
- Functional checks and tests (leak test, for example)
- Conservation
- Planning and purchasing of spare parts
- Obsolescence management



The control unit decides electrically as to whether the thermistor body is immersed in the fuel or is situated in air and/or fuel vapors. Dry thermistor bodies will cause a smaller drop in voltage and wet thermistor bodies will cause a larger drop in voltage. This characteristic is used in order to activate and/or deactivate relays.

The verification of the device requires the availability of a variety of different testing instruments, including:

- Insulation testing instrument
- Digital voltmeter
- Milliohmmeter
- Heating furnace