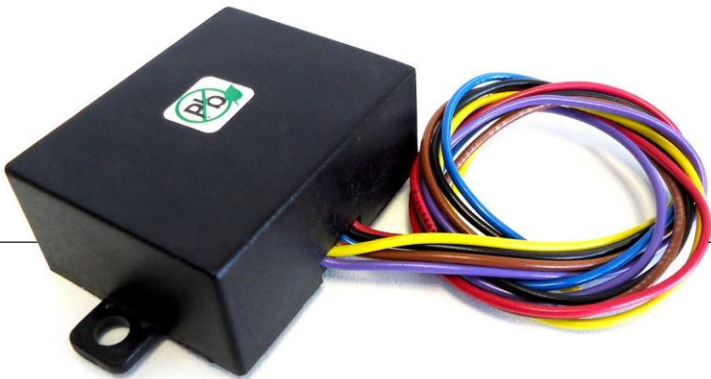


AT1000 FUEL LEVEL SENSOR

Installation and Calibration Guide



BASIC INSTALLATION

Perform the following steps to install the Fuel Level Sensor.

1. Connect the sensor +V (wire 1, red) to the vehicle battery or to vehicle Ignition-On (recommended). The connection should be done using a fast blow, 1 A fuse to prevent damage to the vehicle's power in case of a faulty sensor.

NOTE: The sensor typically consumes 10 mA and therefore it is recommended to power the sensor via the vehicle's ignition switch, in order to extend battery life when the engine is off.

2. Connect the sensor GND (wire 2, black) to the vehicle GND.
3. Connect the Sender Input (wire 5, yellow) to the fuel tank's sending output.

NOTE: Voltage regulator adaptation must precede empty tank and full tank calibration.

VOLTAGE REGULATOR ADAPTATION

Adapt the fuel sensor in cases where the vehicle has a voltage regulator to supply power to the fuel gauge/sending unit system, and in cases where a voltage regulator is not available. In order to do so, perform the following steps:

1. Turn the ignition switch to the Stand-By position. Do not turn on the engine. Wait for at least 10 seconds.
2. Short-circuit the regulator/setting by connecting the input (wire 6, purple) to the vehicle GND for more than 10 seconds.

NOTE: It is strongly recommended to use a switch with a pair of crocodile clips to ensure a stable connection.

3. Start the engine. Wait for at least 20 seconds.

NOTE: Do not turn the key to the off position or the process will have to be restarted.

4. Disconnect the short circuit (purple cable to Ground).
5. If remote calibration is planned, connect the regulator/setting input (wire 6, purple) to one of the Cellocator unit outputs. Otherwise this wire must be left free and insulated.

CAUTION: *Under no circumstances should the regulator/setting input (wire 6, purple) be connected to any voltage above 5 V. The device will be permanently damaged if this happens.*

NOTE: If you perform a voltage regulation adaptation, a complete empty and full tank calibration procedure must be performed as well.

EMPTY/FULL TANK CALIBRATION

NOTE: The sequence of the calibration of the empty tank and the full tank is not important and can be performed in any desired order.

To perform calibration of the tank:

1. Empty/fill the fuel tank or set the float to the “empty/full” position.
2. Turn the ignition switch to Stand-By position to power up the float.
3. Wait at least 20 seconds to let the sensor’s filter stabilize its output.

For EMPTY: Short-circuit the calibration input (wire 3, blue) to the vehicle GROUND. Then remove the short circuit. The voltage on the output (wire 4, brown) should read 0 V.

For FULL: Short-circuit the calibration input (wire 3, blue) to the vehicle battery. Then remove the short circuit. The voltage on the output (wire 4, brown) should read 2.5 V.

REMOTE CALIBRATION INSTRUCTIONS

In order to speed up the calibration process or to recalibrate the fuel sensor after installation has been completed, the fuel sensor can be calibrated remotely. The remote calibration requires coordination between the vehicle driver and the control center operator and it is the control center operator’s responsibility to validate that all steps are carried out as required.

The remote calibration requires the following preparations:

1. The regulator indication input (wire 6, purple) should be connected to one of the Cellocator unit’s outputs during the installation. The Cellocator unit should be programmed to supply ground to the output when activated.
2. The control center application allows activating and deactivating of the output.
3. The driver and the operator can carry out a phone call.

Technical Specifications:

- Supports all vehicles that utilize floating buoy
- Ability to calibrate for full or empty tank / remote calibration
- Prevents measurement error due to buoy's momentary movement
- Supply voltage 8 V - 36 V
- Output voltage of 0 V (empty tank) and 2.5 V (full tank)
- Low-frequency, low-pass filtering cutoff below 0.05 Hz
- Current consumption: 10 mA typical
- Protection against power wire inversion and any voltage shortage between 0-10 V
- Working temperature: -30°C to 80°C