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### **iLevel Ltd Product Description.**

**iLevel** tank level system uses sensors installed on each tank to measure the level of the liquid contained in the tank. This information is transmitted via a mobile phone network to a secure server. The information is then made available to the customer via App and Web Page as a 'subscribed for' service, paid for annually in advance. Minimum subscription period is two years. There is also an annual charge for the data transmitted.

#### **1. PRESSURE SENSOR SYSTEM – all liquids**

##### **Single & Multiple Tanks:**

A pressure sensor is positioned in the bottom of the tank and it measures the pressure exerted by the column of liquid above it. The cable connecting the pressure sensor to the metering device is hollow, allowing the free passage of air to the sensor from outside of the tank, enabling the pressure sensor to compensate for any changes in atmospheric pressure

##### **Monitoring Device:**

The pressure sensor is connected via the cable to the **iLevel** Metron2 mounted on the tank. The cable exits the top of the tank, either via the breather pipe or, through a hole which has to be drilled into the top of the tank. This hole is sealed with a water tight gland to prevent any moisture entering the tank. The Metron2 unit periodically powers the sensor, scales the reading into the right units and transmits to the server via the mobile phone network. There can be up to four sensors connected to each unit.

The monitoring device needs a good mobile phone signal to work; the stronger the signal the better so is never mounting inside metal cabinets or underground. The unit is weather proof as long as it is correctly sealed. Mounted inside is a SIM card which automatically selects the strongest signal from the mobile networks in the area. The unit has an integral antenna contained inside but, in the event of poor mobile phone coverage, an external antenna can be added.

The unit can be powered three ways; an internal 3.6v, 14AH long life Battery(non-rechargeable), 110/240V ac to 6-24V dc power supply, or an external 6-24V dc power supply (solar, wind or large battery).

The unit operates a real time clock which 'wakes' up the device at predetermined time intervals and measures (polls) the tank level. The frequency of this action is determined by the power source and customer requirement. Typically, the unit 'polls' the tank every 30 minutes and only sends any information if there has been a breach to the pre-set high & low level alarms; there are 10 high & 10 low level alarms available so any change over 5% in the level is reported.

Additionally, the unit also transmits every 24 hours providing a record of the tank level on a daily basis. If nothing is received from the unit after 28 hours, an alert is sent from the **iLevel** system; this alerts **iLevel** to a loss of power or failure of the unit.

#### **2. FUEL ONLY SYSTEM – oil fuels only**

##### **Single fuel tank system:**

The sensor is designed specifically to measure fuel level by using the fuel as an insulator to form a capacitor in the sensor tube. As the level of the fuel changes so does the level of insulation and meaningful data can be extrapolated from the resultant readings. The unit periodically measures

the fuel level and checks for any changes, thefts or leaks and reports these to **iLevel**. The sensor is self-contained and does not require calibration in the field.

The tank must be less than 3 metres tall and contain heating oil, kerosene or diesel (Gas Oil). The sensor probe must be installed vertically from the top to the bottom of the tank, unobstructed. The sensor probe requires a suitable 25mm hole in the top of the tank and is cut to length based upon the internal height of the tank. The sensor is constructed so that it forms a water tight seal on the top of the tank when fitted. Once installed, the monitor measures the depth of the fuel and compares this level with the dipped reading, transmitting this to the server. The unit needs a good mobile phone signal to work; the stronger the signal the better. The unit is weather proof as long as it is correctly sealed. Mounted inside is a SIM card which automatically selects the strongest signal from the mobile networks in the area. The unit has an integral antenna contained inside but, in the event of poor mobile phone coverage, an external antenna can be added.

The unit is battery powered using a long life internal, non-rechargeable battery. Routinely, the unit also transmits every 24 hours providing a record of the tank level on a daily basis. If nothing is received from the unit after 28 hours, an alert is sent from the **iLevel** system; this alerts **iLevel** to a complete loss of power or failure of the unit.

### **3. iLevel Web Site & App**

Once a monitoring device has been installed on the tanks, **iLevel** receives the data and creates an individual **iLevel** Mobile App and Web Page for the customer.

This enables the customer to check the level of their tanks from anywhere in the world, simply by accessing the **iLevel** mobile app on your mobile phone or via your secure login to the [iLevel web site](#).

**iLevel** uses intuitive and easy to read symbols which informs the customer, at a glance, of the actual level status of their storage tanks. The daily level of each tank is stored on the internet so that the customer can receive historical data for comparison purposes.

**iLevel** provides alerts via the customer's phone or email informing them of any changes in the tank levels, immediately alerting the customer to any change which has been detected by the sensor. The alerts can be programmed to meet their specific requirements; level changes or time specific, ensuring that the customer only receive these alerts when they require them.

The **iLevel** system can prompt the customer to re-order the product or their supplier can also subscribe to this information, enabling them to monitor and replenish the tank's contents.

The **iLevel** tank level system is a cost efficient solution for;

- Farms; Fuel, Liquid Fertilizer & LPG
- Fuel Suppliers
- Co Operatives & Buying Groups
- Building Sites
- Generators
- Commercial & Domestic storage tanks

The **iLevel** tank monitoring system will work on all regular shaped tanks, single or groups, above or below ground, metal or plastic construction, subject to site survey.

For more information, contact iLevel Ltd [www.i-levelapp.com](http://www.i-levelapp.com)

**iLevel Ltd** Terms & Conditions apply