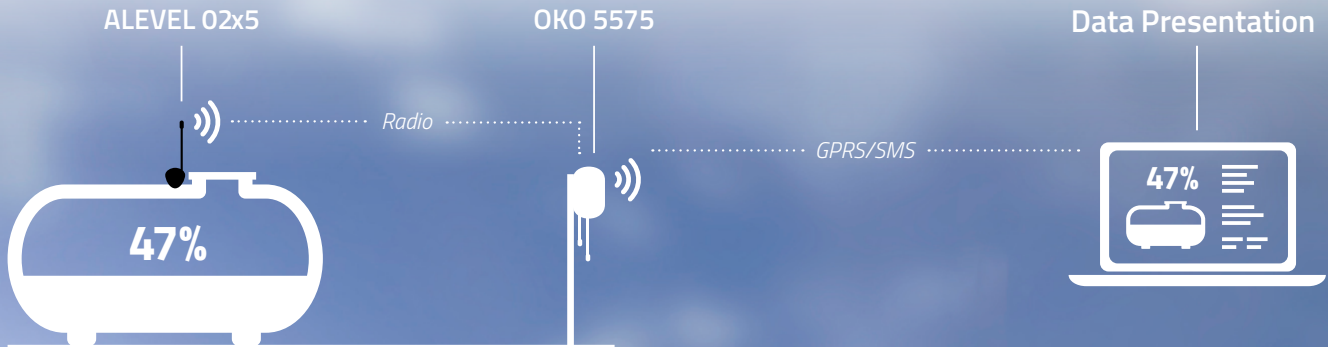




# IMR LPG Tank Monitoring ALEVEL 02x5 Smart Tank Level Sensor



SRD wireless communication, IoT



Robust design for outdoor operation



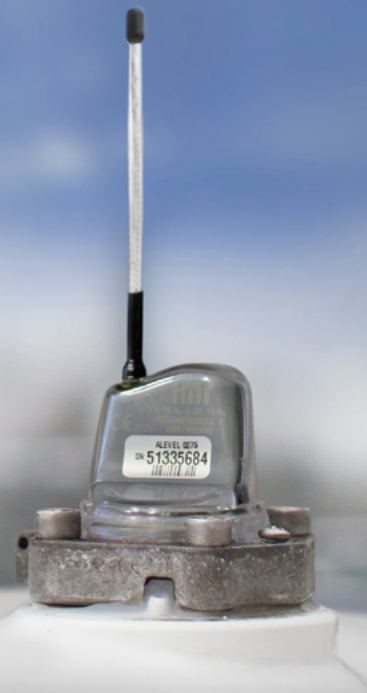
Compatible with wide range of tanks & tank gauges



Long life battery (6+1 years)



Atex certified



**ALEVEL 02x5** is a smart LPG tank sensor that provides wireless communication either autonomously with IoT (LPWAN) technologies or with external gateway. OKO 5575 battery powered, ATEX certified device is a recommended gateway that collects data from up to 6 ALEVEL 02x5 devices in range. ALEVEL 02x5 is easy to install on various types of LPG tanks and its own mechanical dial fits most commonly used float arm level gauges.

**IMR Remote Tank Monitoring System**, designed and developed by AIUT, is a state of the art solution for remote readout of tank level data and used among other applications for the LPG Inventory Management.

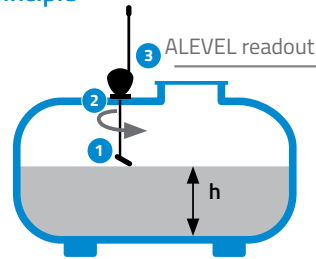


## IMR LPG Tank Monitoring

# ALEVEL 02x5 Smart Tank Level Sensor

### Operating Principle

ALEVEL 02x5 reads LPG level in tanks and sends the data periodically over radio link. The movement of the arm (1) results in the circular motion of the magnet (2) and the change of magnetic field - ALEVEL reads the magnetic field direction based on the Hall Effect. Obtained value is converted to an output that is indicative of the float arm position and hence the amount of fuel contained within the tank. Additionally, the built-in mechanical level indicator allows immediate visual readout regardless the electronics (3).



The built-in mechanical indicator allows immediate visual readout.

### Installation Process

Easy fit and forget installation is intuitive and only requires replacing the original with ALEVEL 02x5 sensor. Simply unscrew the original dial bolts, take out the original dial and place ALEVEL 02x5 on the gauge. Secure the ALEVEL 02x5 sensor with two original bolts. The installation procedure does not disturb the regular work of LPG installation.



- Custom built fitting enables the placement of the sensor on all types of level gauges, such as Rochester Junior, Cotraco, GOK and REGO
- ALEVEL 02x5 is dedicated for horizontal tanks. However, it is possible to install it also on vertical tanks, just mention vertical option in order number. ALEVEL 02x5 must be configured during the production stage for the vertical tanks.

### Order Numbers

ALEVEL 02x5 can be installed both on above and underground tanks, directly on majority of tank level gauges. In some special cases the installation of ALEVEL 02x5T may require the use of an adapter or even the gauge replacement. All adapters (for 2", 4" and 8" gauges) can be ordered & delivered separately.



**ALEVEL Adapter 02**  
plastic adapter with built in dial socket designed to install ALEVEL sensor on 2" senior type gauges



**ALEVEL Adapter 04**  
Specially designed Accu-Max 4" gauge to fit in the ALEVEL sensor



**ALEVEL Adapter 08**  
Specially designed Accu-Max 8" gauge to fit in the ALEVEL sensor

- ALEVEL 02x5 705 with integrated adapter is dedicated for tanks with SRG705 socket gauges,
- ALEVEL 02x5 V450 is dedicated for vertical 450 l tanks
- ALEVEL 02x5 V1000 is dedicated for vertical 1000 l tanks
- ALEVEL 02x5 (as default) or ALEVEL 02x5 H are dedicated for horizontal tanks

### Functional and Technical Specifications

#### General Features

- Dimensions : H x H (with antenna) x D: 46mm x 120mm x 45mm
- Weight: 41g

#### Power supply

- Non replaceable Lithium battery, 6+1 years lifetime
- ALEVEL 02x5 is able to provide battery level and the estimated lifetime

#### Communication

- Radio frequency 868MHz, 1mW
- Radio range: 200m for above-ground tanks, 20m for underground tanks (1mW transmission)
- Frequency, channel, output power can be adjusted in accordance with the local requirements
- EMC, R&TTE Compliant

#### Sensor & Readout Data

- Data transmitted over radio link every 3 minutes
- Type of data transmitted: tank level, temperature, battery status
- Measuring the direction of the magnetic field, Hall effect sensor
- Resolution 1%, the total accuracy of 5%
- Ambient temperature sensor, the accuracy + /-3°C
- Operation parameters can be changed remotely (via RF commands sent via OKO).

#### Environmental Parameters for ALEVEL 02x5

- Operating temperature : -20°C to +50°C
- IP 68 – can work submerged in 0.5 meters water deep (may reduce radio communication range)
- UV resistant
- ATEX certificate: FTZU 16 ATEX 0070 X II 1G Ex ia IIB T3 Ga