



Boost your control



LPG tank managing solution



SPIN-System<sup>®</sup>



SPIN Cath® is an automatic monitoring system of the tank cathodic protection.

**SPIN Cath® constantly monitors cathodic protection system of your LPG tank** and trasmits collected data to the server through an Android terminal or SPINLevel device (soon directly also by means of GSM and NB IoT network).

**Easy to install in place of cathodic protection junction box, self- powered with more than 5 YEARS of expected lifespan**, it provides replaceable batteries to extend the operating life time.

The SPIN Cath® system is designed and full compliant with the most recent European Directives like ATEX (2014/34/EU), RED (2014/53/EU) and EMC (2014/30/EU).

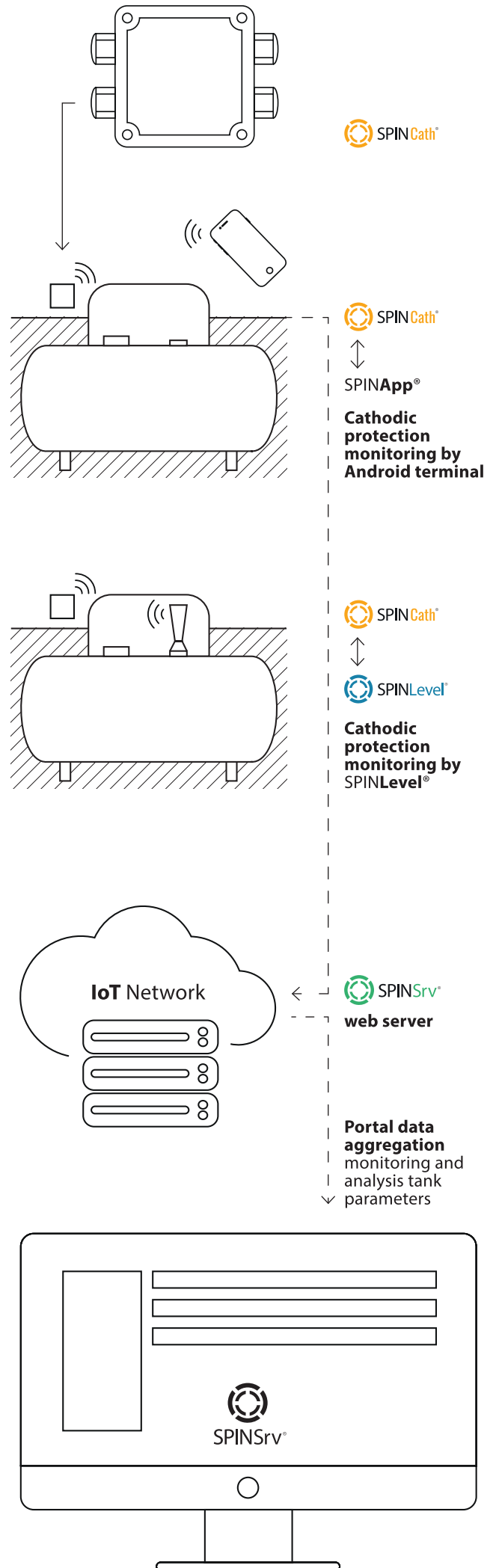
## Functional characteristics

**SPIN Cath® is a device that can be easily installed on LPG tanks**, which allows automatic cathodic measurement (current and voltage) and the continuous saving of these values.

The collected data is stored locally on the device and transmitted to the remote database via connection through an Android terminal equipped with the SPINApp® application or through SPINLevel® device.

The system is powered by no. 2 CR2450 batteries easily available on the market, for an estimated duration of approximately 5 years depending on usage modes.

SPIN Cath® is integrated into the SPIN-System® suite, already including SPINCap® and SPINLevel®. However, the manual measurement of cathodic protection parameters remains accessible to the operator.



## Technical features

- MCU 32-bit ARM Cortex-M33 core with Hardware Cryptographic Acceleration
- BLE 5.2 with OTA functionality for remote updates
- Flash memory for local storage of events
- Real Time Clock with a maximum error of less than 15 minutes/year at ambient temperature
- Autonomy > 5 years (depends on use and environmental conditions)
- Completely self-powered (replaceable batteries)
- Database for cathodic monitoring, events storage, system control
- Mobile APP (Android 6.0 or higher) for tech assistance
- Encrypted data transmission
- BLE communication with SPINLevel tank level meter
- Test performed by voltage and current readings

## Server characteristics

**The SPINSrv® data collecting platform allows you to monitor the events generated by each SPINCath® on the field.** Events are stored in a SQL database and SPINSrv® is built with RoR (Ruby on Rails) version 5.x.

**The typical events recorded are:**

- Date/Time
- Battery charge level
- Current and voltage readings
- Cathodic protection system status
- Alarms and warnings
- Logs
- Historical trends

**The system is designed to extend the type and quantity of recorded events** (i.e. data collected from additional devices) and to install plug-ins for data analysis.

## Advantages

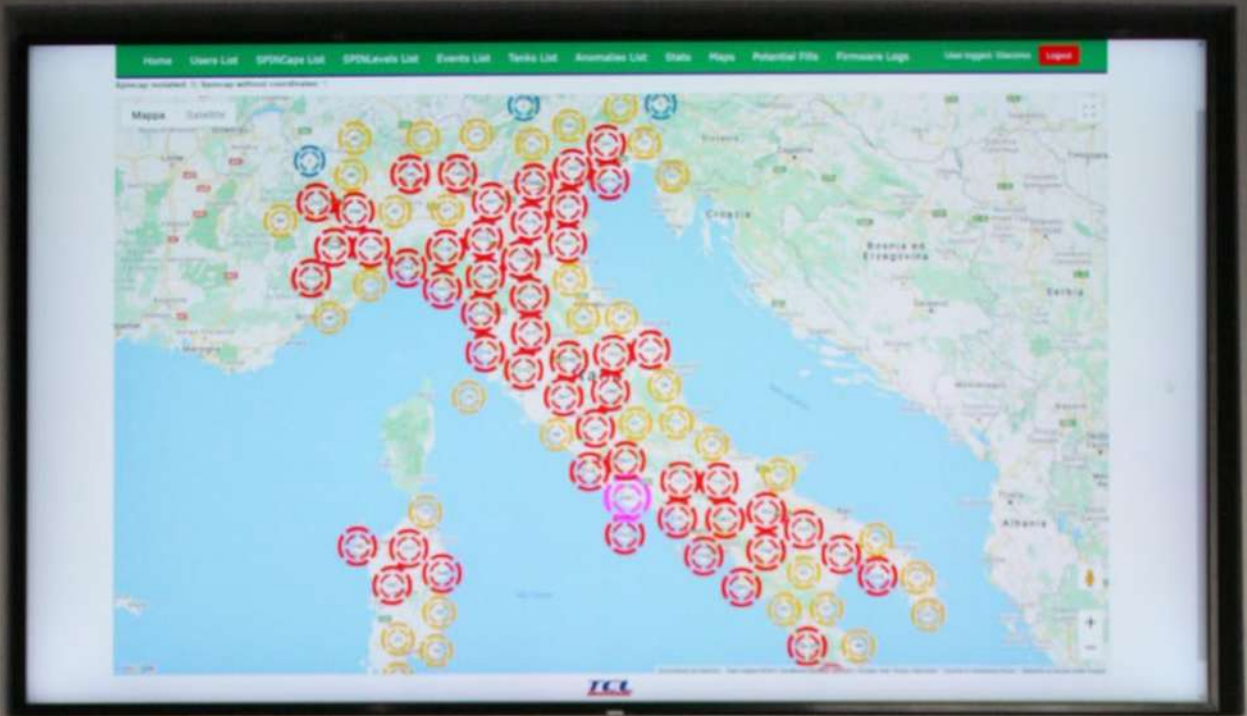
- **Elimination of logistics costs.** With SPINCath® no need to send technical personnel to make measurements on the tank
- **Certainty of results.** No risk of loss of manually made measurements or data transcription
- **Immediate analysis of the tank pool.** Thanks to the data transfer you will have the situation of every tank in the territory verifiable at any time
- **Statistics on fingertips.** All values converge in the SPINSrv® platform with the possibility of integration and analysis of data collected from other devices of the SPIN® series
- **Transition 4.0.** like the other products of the SPIN® series. SPINCath® is facilitated for the purposes of the Transition 4.0 (Law 232/2016, s.c. "Industry 4.0").



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