

SurfMoG H₂

by 45-8 ENERGY & SOLEXPERTS

The most effective IoT tool for long-term hydrogen monitoring in subsurface

SurfMoG H₂ is the result of the expertise and union of a French company, 45-8 ENERGY, and a Swiss company, SOLEXPERTS. 45-8 ENERGY's knowledge of subsurface and expertise into industrial gases, coupled with SOLEXPERTS' recognised skills in terms of mechanics and electronic, led to the creation of the most effective IoT tools currently on the market for accurately and continuously monitor hydrogen in the subsurface over long periods of time: SurfMoG H₂.



AN INNOVATION:



SOLEXPERTS

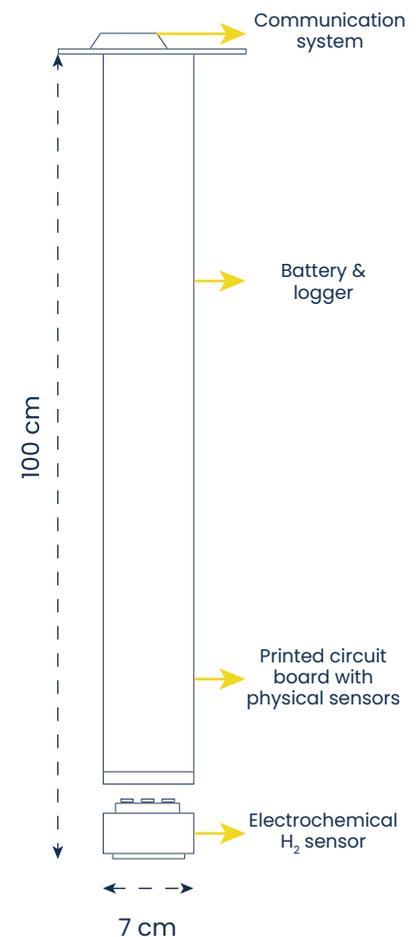
TECHNOLOGY

SurfMoG H₂ is composed of:

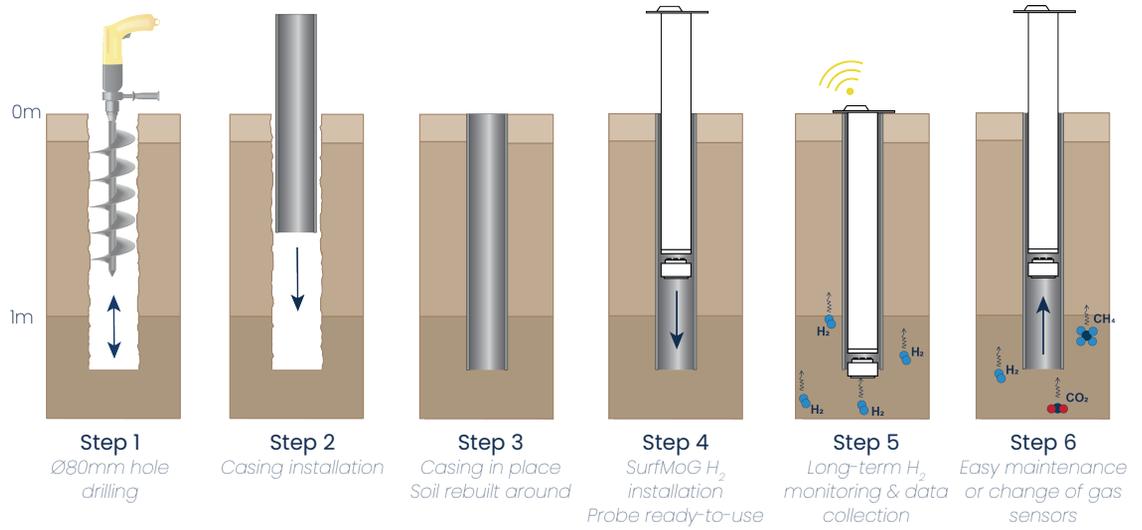
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An interchangeable gas analysis chamber, with an electrochemical sensor for hydrogen measurements up to 40,000 ppm (4%)
- 
An inox probe, designed specifically to withstand the subsurface's constraints, houses the sensor, battery and communication system.
- 
A highly-resistant plastic cover, to protect antenna and assure accurate data transmission without interference from the probe's installation environment.

Other SurfMoG versions

SurfMoG was originally designed for hydrogen monitoring. However, long-term subsurface monitoring of others gases could be of interest in various applications. This is why a CO₂ and CH₄ version of SurfMoG has been developed.



SurfMoG H₂ comes with a high-quality stainless-steel casing that simplifies maintenance and makes it easy to change the probe (H₂ or CH₄/CO₂).



SURFMOG H₂ TECHNICAL SPECIFICATIONS



PROBE

- Inox 316 for probe & casing
- Diameter of the Probe: **7 cm / 2.8 inches**
- Height of the Probe: **100 cm / 39 inches**
- Weight of the Probe: **8 kg**
- Interchangeable gas analysis chamber



SENSORS

- Hydrogen electrochemical sensor: **0 – 40 000 ppm**
- Temperature sensor
- Operating temperature range: **0°C - 50°C**
- Operating humidity range: **10-90%**



DATA ACQUISITION & TRANSMISSION

- Measurements at **1m depth**
- Sampling rate: **2 times per hour (adjustable)**
- Operating life: **1 year**
- Communication standards: **GPRS**
- Data package transmission: **1 time/day**

APPLICATION FIELDS



Gas exploration & production



Gas storage



Storage of radioactive waste



Hydrogeology



Geothermal energy

RENTAL

SurfMoG H₂ is available on a long-term rental basis for 6, 12 or 24 months for best suits your needs. SurfMoG H₂ has been designed for the simplest and most efficient user experience:

- ➔ Ready-to-use
- ➔ Measurement over a long period
- ➔ Easy installation and basic maintenance
- ➔ Minimization of interventions
- ➔ Access to a data visualization platform with dedicated account

You need to accurately monitor hydrogen flows and want to have more information?

Contact us at:
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