



### Test & Calibration of Gas Detectors, Hydrogen Sensors

Gas detectors, gas analysers, gas indicators, leakage detection devices or hydrogen sensors need to be tested & calibrated regularly.

For such fixed or hand held devices a safe, easy to handle and portable hydrogen source is necessary.

### Ultrapure Hydrogen from VARTA Microbattery

VARTA offers two products 1/V 130 H<sub>2</sub> (4690101501) and 2/V 130 H<sub>2</sub> SK BE (4690302501) which easily generate 130 cc or 260 cc ultrapure hydrogen. So an innovative solution with handling and economical advantages for your end-customers is possible.

### Technical Solution

A test and calibration unit with hydrogen gas generating cells from VARTA Microbattery. Safe, compact, portable, easy to handle and easy to control. Only a resistor is necessary to activate the hydrogen production, without any additional power source.



Characteristics	VARTA H <sub>2</sub> Cell 1/V 130 H <sub>2</sub>
Hydrogen Gas Output	130 – 150 ml ultrapure H <sub>2</sub>
Dimensions / Weight	D = 11.55 mm, H = 5.45 mm W = 1.85 g
Capacity Retention	> 90%, after 12 months storage at 20 ° C
Operating Temperature Range	0 ° C up to + 50 ° C (Discharge)
Expandable	300 ml or ½ litre hydrogen (with 2, 3, .. or more cell assembly)

### VARTA H<sub>2</sub> Cells – for innovative short-term or long-term applications

Depending on the resistor the hydrogen gas output can be controlled. E.g. for short-term use (within minutes) up to long-term use (weeks, months, up to a year). From this small, safe and pressure-free H<sub>2</sub> “gas bottles”, in the volume size of only 0.5 ml you can get 250 – 300 times higher volume up to 150 ml.

- **Safe & pressure-free hydrogen storage**
- **Easy controllable H<sub>2</sub> delivery (continuous or intermittent)**
- **Ultrapure hydrogen (99.99 % H<sub>2</sub>) level 4.0**
- **Hydrogen amount flexible & expandable (by 2, 3, ... or more cell assemblies)**
- **Energy independent portable system**
- **Operation over a wide temperature range**
- **Long shelf life**
- **Unique customer-binding solutions possible**
- **Economical & handling advantages**
- **Made in Germany**

For more details to our H<sub>2</sub> Cells please contact VARTA Microbattery at: <http://www.varta-microbattery.com/top/h2>

\* The demonstrator is not a product available from VARTA Microbattery.



Gas - Detectors, - Analyzers,  
- Indicators, Hydrogen Sensors

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