EMCEL Consulting and Engineering for the Energy Transition

Hy-QAll

The H2-measuring system for continuous outdoor measurement

emcel.com > services > Hydrogen quality measurement

Laboratory-grade hydrogen analysis

- We help you to monitor and optimise your H2 process
- Continuous measurements every 3 minutes and real-time display in the web portal
- Substances are measurable according to DIN EN 17124 / ISO 14687 / SAE J2719
- Complex hydrocarbons such as oils and fats can be measured
- Can be booked for purchase, rent or as a measuring service

Facts & figures

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The outdoor measuring system in detail

- Highly sensitive measuring methods
- Weatherproof measuring system that can be used outdoors
- Suitable for mobile use
- Web-based measurement app incl. data portal
- Inexpensive measuring device due to its modular 19“ design
- Detection of specific and general impurities

Modular design

Modul 1 GC-IMS
Measurement of the most critical, irreversibly harmful impurities according to the standard

Modul 2 Micro GC
Measurement of potentially diluting and reversible impurities and gaseous carbon compounds

Possible options

- Automated reference measurement (e.g. with H2 6.0)
- Further measuring channels can be configured; Pressure control up to 1,000 bar
- Further options are possible after consultation. Please feel free to contact us.

Detectable substances			
Substances	**DIN EN 17124** (ppm)	**Modul 1** GC-IMS	**Modul 2** Micro GC
NH_3	0.1	√	
Total sulfur	0.004	√	
Formic acid	0.2	√	
Formaldehyde	0.2	√	
Halogens	0.05	√	
H_2O	5.0	√	
Complex HC, oils and fats	2.0	√	
HC	2.0		√
O_2	5.0		√
CO	0.2		√
CO_2	2.0		√
CH_4	100		√
He	300		√
N_2	300		√
Argon	300		√

Further substances and details on request

Ambient conditions	
Temperature range	- 20 bis + 40 °C
Relative humidity	≤ 85 %
Protection class	IP56

Measuring cabinet properties	
Min. dimensions (LxBxH)	approx. 85 x 55 x 80 cm
Min. weight	70 kg
Max. weight	120 kg

Hydrogen supply	
Flow rate	0.01 bis 10 l / min
Temperature	- 20 bis + 40 °C
Pressure	< 10 bar

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