



Application: PEM electrolyzer

Reliable

Reliable measurement even with oxygen and hydrogen gasses

Cost-effective

Precise measuring results for efficient regulation of the process

User friendly

Direct installation in small tanks with internal structures

Level and pressure measurement in the PEM electrolyzer

In the electrolyzer, renewable energy is used to split water (H_2O) into its individual components hydrogen (H) and oxygen (O). Green hydrogen is thus produced in a CO_2 -free cycle. The PEM electrolyzer uses a proton exchange membrane that is continuously flushed with ultrapure water. An electrical potential causes protons to migrate through the membrane. Hydrogen is produced on the cathode side and oxygen on the anode side. On the oxygen side, level measurement is used to regulate the ultrapure water. On the hydrogen side, it monitors the excess water. The pressure sensors monitor the pressure in the feed line on the oxygen side and in the discharge line on the hydrogen side.



VEGAFLEX 81

Level measurement with the guided radar for water volume control

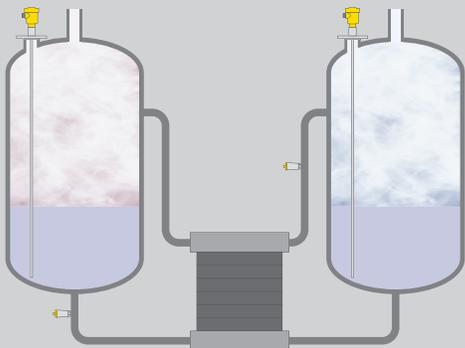
- Reliable measurement even in the smallest measuring ranges
- No influence from installations inside the vessel
- Sensor version for high-purity oxygen applications (EIGA 33/18 and ASTM G93) also available



VEGABAR 28

Pressure measurement in the inlet and outlet of the PEM electrolyzer

- Reliable measurement of hydrogen and oxygen
- Simple setup and commissioning via Bluetooth
- Resistance to internal ignition in oxygen applications available as per 'BAM assessment'





Level and Pressure Measurement in the PEM Electrolyzer

Continuous Level Measurement

Instrument Type	Measuring Range	Process Fitting	Process Temperature	Process Pressure
VEGAFLEX 81 Guided wave radar sensor for continuous level and interface measurement of liquids	75 m	Threaded connection ≥ G¾, ≥ ¾ NPT Flange connection ≥ DN25, ≥ 1"	-60 ... 200 °C	-1 ... 40 bar



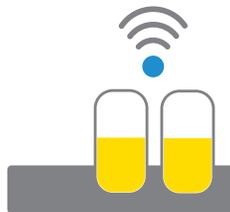
Pressure Measurement

Instrument Type	Deviation	Process Fitting	Process Temperature	Measuring Range
VEGABAR 28 Pressure sensor with switching function and ceramic measuring cell	0.3 %	Threaded connection ≥ G½, ≥ ½ NPT	-40 ... 130 °C	-1 ... 60 bar



Wireless operation

With Bluetooth, VEGA is looking far into the future. Wireless communication provides better accessibility: In harsh industrial environments, in hazardous areas, and in clean rooms. It allows setup, display and diagnostics from a distance of up to 50 metres, thus saving time and avoiding hazardous situations. Simply via VEGA Tools app – on any available smartphone or tablet.



VEGA Inventory System

Simple but powerful visualization software coupled with high performance sensors provides a complete solution for remote monitoring of inventories.

- Access to live data anywhere on the internet via a web browser
- Gain detailed insights into your stock levels and consumption
- Optimize replenishment planning
- Never miss events with alerts and notifications
- Secure and reliable data



myVEGA

With myVEGA as your personal information platform, you have access to many useful online functions relating to VEGA products.

- Configurator for the entire VEGA product range
- 2D/3D drawings of instruments
- Access to product data, operating instructions, certificates, and software
- Manage offers and order data, and also track shipments
- Save, manage, and synchronize access codes for VEGA sensors