CASE STUDY

SERVOMEX ANALYZERS USED FOR MEASURING OXYGEN IN MEMBRANE-FREE WATER ELECTROLYSERS

BACKGROUND

With the global push to develop clean energy solutions for the future, hydrogen, as one of the world's most versatile natural gases, is important as a future clean energy source.

Electrolysers, which use electricity to split water into hydrogen and oxygen, are a critical technology for producing low-emission hydrogen. Typically, an electrolyser utilises a membrane to separate the hydrogen and oxygen.

Green hydrogen technology and manufacturing group CPH2 has developed a unique technology that uses cryogenic separation to deliver pure hydrogen and pure oxygen. The benefits of the 1MW Membrane-Free Electrolyser technology are the faster manufacturing process, the longer durability, which makes it more reliable, and

the absence of precious metals such as Platinum, which makes it more cost-effective and sustainable.

The CPH2 electrolysers are used to decarbonize energy systems, replacing diesel backup systems and using excess wind and solar energy to generate hydrogen to power equipment, machinery and transportation (forklift trucks, buses, airport ground support equipment).

THE SERVOMEX SOLUTION

CPH2 needed a robust, highly accurate analyzer that detects the impurity of oxygen in the hydrogen. The solution had to be tested and from a reliable and branded supplier to demonstrate the superiority of the technology.

This versatile oxygen analyzer was recommended to CPH2 by Servomex's channel partner, SGS, who recognized that the OxyExact would be an excellent addition to the electrolyser being used in state-of-the-art green hydrogen production plant.

With Servomex's long and proven history in measuring oxygen, the SERVOTOUGH OxyExact 2200 is the ideal solution to use to support the CPH2 technology.

THE SERVOTOUGH OxyExact 2200

This high-specification OxyExact 2200 O_2 analyzer offers an unrivalled combination of precision, flexibility and performance for optimum process and safety control.

Its class-leading specification for measuring oxygen in hydrogen makes it the ideal choice for use in electrolysers as well as other demanding oxygen process monitoring and will enhance the efficiency and safety processes of the CPH2 technology.

The OxyExact 2200 is approved for the measurement of oxygen, including enriched oxygen (>21%), in hydrogen in hazardous areas, and can be configured with a hazardous area control unit with up to six transmitters.

SUPPORTING A CLEANER AND SUSTAINABLE FUTURE

Servomex is committed to creating a cleaner world by developing advanced gas analysis technologies and solutions to help future-proof industry applications.

These innovative technologies for combustion efficiency, gas cleaning, carbon capture and emissions monitoring will help drive decarbonization, and help customers to make their processes cleaner, healthier and more sustainable.