

# INNOVATIVE VALVE TECHNOLOGY FOR THE HYDROGEN SECTOR

**NEW!**



AVAILABLE  
AS FROM  
**Q3 2023**

## **SERIES 2/977**

- Applicable for hydrogen / oxygen
- Long service life due to unique spindle seal design  
-> 35% more switching cycles than comparable products of the competitors!
- Improved opening and closing times
- High tightness ( $10^{-6}$  mbar l/s)
- Housing materials especially qualified for H<sub>2</sub> and O<sub>2</sub>
- Compact and robust design
- ATEX certified
- Reliable, tested sealing elements for the hydrogen version
- BAM-certified sealing elements for the oxygen version
- SIL2 acceptance planned

**Engineering . Valves . Solutions .**

## **DESIGNED FOR ELECTROLYSERS**

The generation of electricity from wind and solar energy plants will be massively expanded in the coming years. However, since these forms of electricity generation are subject to fluctuations due to the time of day and the weather, and the electricity generated cannot be stored easily, there are still some challenges to be overcome. The production of green hydrogen from the surplus electricity of renewable energy plants could be the solution. Hydrogen can be temporarily stored, transported and used in gas grids or converted back into electricity in gas turbines.

Green hydrogen is produced by splitting water (H<sub>2</sub>O) into hydrogen (H<sub>2</sub>) and oxygen (O<sub>2</sub>) using electrolyzers and renewable electricity. The new externally controlled valve from GSR controls the processes around electrolysis.

A version for use in both the hydrogen and oxygen processes will be soon available. The valves are optimally designed for the prevailing pressure and temperature ranges and convince with sophisticated materials that enable a long service life and excellent flow properties.

**G**

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**R<sup>®</sup>**



## TECHNICAL DETAILS

|                          |  |
|--------------------------|--|
| Type of control:         | Direct pressure controlled                                   |
| Body material:           | Stainless steel  |
| Environment temperature: | -10 °C up to +60 °C  |
| Medium temperature:      | -40 °C up to +95 °C  |
| Pressure range:          | 0-40 bar   |
| Thread / Connection:     | G1/2 - G 1 1/2   |
| Option:                  | NPT thread<br>NO - pressureless open<br>FL - flanged version |



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