

# H<sub>2</sub> gas monitoring

Safe production and use of hydrogen





#### Your Partner for

- ✓ H<sub>2</sub> Research
- ✓ H<sub>2</sub> Production
- ✓ H<sub>2</sub><sup>-</sup> Logistics
- ✓  $H_2^-$  Mobility

## H<sub>2</sub> gas monitoring

### For research, production, logistics and mobility.

The use of hydrogen as an energy source of the future is diverse. In addition to its use in welding or as a fuel for rockets, the focus is currently mainly on the automotive sector. H2 is a very reactive gas, which makes constant monitoring by a gas warning system essential throughout the entire life cycle. The SIL2-certified PolyXeta<sup>®</sup> sensor with X-Change technology is used for successful gas monitoring. Permanent gas monitoring is used for primary explosion protection and therefore also for plant safety.

### Gas hazards with hydrogen

Hydrogen is an excellent source of energy, but it is also one of the most difficult substances to transport. The extreme danger of hydrogen leaks lies in oxyhydrogen explosions. During research work, on test benches and during the production of the gas, leaks and catastrophic damage can occur at any time in the event of ignition. Warning systems must also be installed during hydrogen production from ammonia and in petrol stations to protect people and systems from this highly flammable gas.

### Applications with hydrogen





# H<sub>2</sub> monitoring

### Product benefits

- SIL2-certified PolyXeta<sup>®</sup> Sensor PX2 for ATEX zones 1 and 2
- Metrological testing of sensors and devices in accordance with EN 60079-29-1 for flammable gases
- Metrological testing of sensors and devices in accordance with EN 50104 for oxygen
- Cost-reduced calibration through on-site sensor head replacement (X-Change technology)
- Solution for individual requirements, simple installation using mounting bracket
- Simple connection to existing systems (analogue, Modbus)
- 2 potential-free relays, e.g. for activating warning devices
- With MPS<sup>™</sup> sensor technology with 15+ year service life and maintenance-free
- Electrochemical sensor for  $H_2$  measurement in the ppm range



### With MPS<sup>™</sup> sensor technology 15+ years lifetime and maintenance-free



H<sub>2</sub> Production / Logistics / Mobility

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**MSR** VIDEO How-to: The commissioning of the PolyXeta® PX2.



### Gas Detection.



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