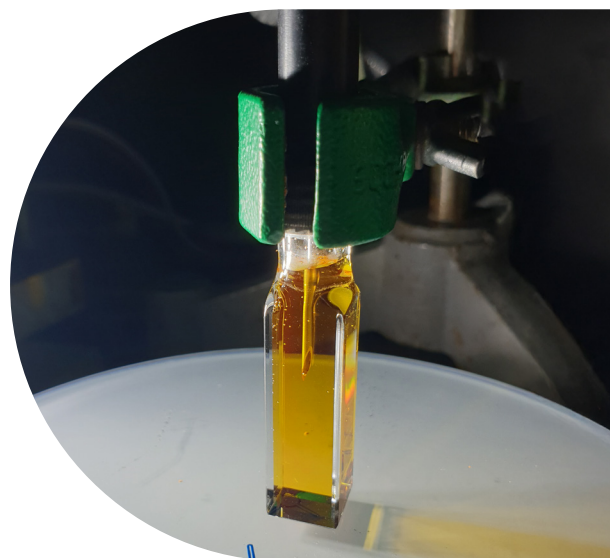


H₂ and O₂ sensors for continuous monitoring in situ

Real-time gas and liquid phase measurements in closed chambers, reactors, and flow systems

Monitor H₂ and O₂ directly in the gas and liquid phase with our ultra-sensitive sensors. Designed for inline installation in electrochemical cells, reactors, closed chambers, and flow-through systems, they deliver continuous data to optimize hydrogen production and green energy research.

- High-precision measurements – Reliable monitoring of hydrogen and oxygen production in the liquid and gas phase.
- Direct installation in diverse systems – Easily integrate into reactors, electrochemical cells, air-tight chambers, and flow-through setups.
- Flexible mounting options – Piercing needles, flow cells, or threaded steel tubes to fit your setup.
- Continuous, real-time data – Measure during hydrogen production and get digital or analog output.



Choose the ideal setup customization

Steel tubes with Swagelok®,
PG13.5 or M20x2.5 threads



Needle sensors for piercing
closed systems



Flow cells based on Swagelok®
or PEEK T-piece



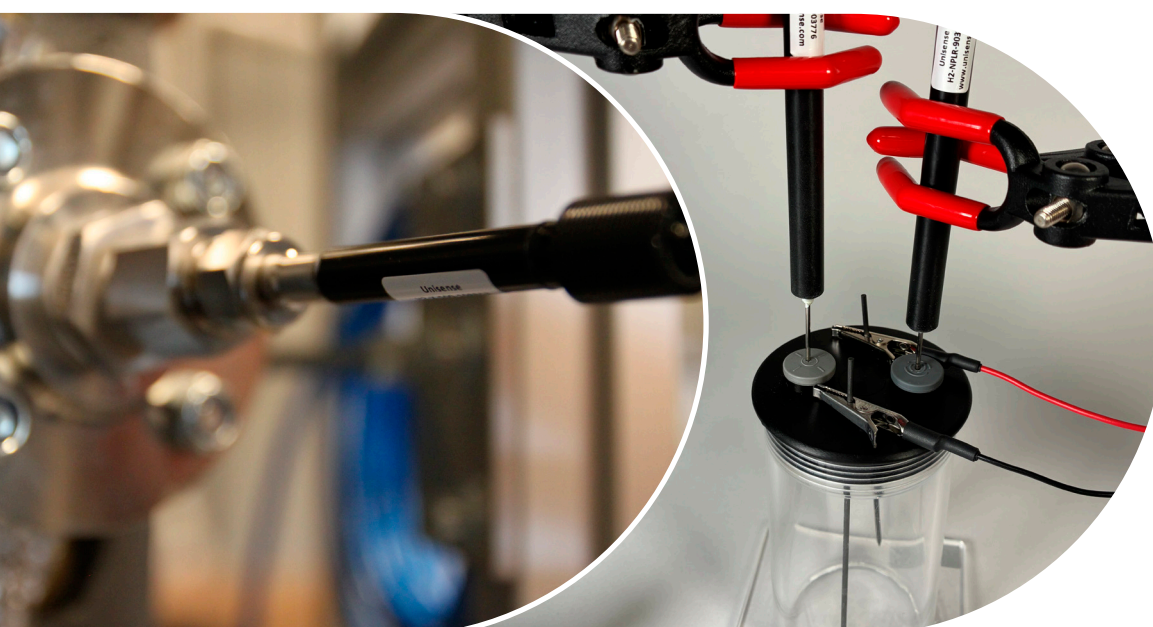
Talk to our experts about customizing H₂ and O₂ sensors for your research application

Customization specifications

Type	Sensor	Description	Mounting option	Dimensions	Option
Needle Sensor	XX-NP	Needle sensor for piercing		1.6 × 40 mm needle	2.1 × 80 mm needle
Steel tube	XX-ST-12	Sensor in 12 mm OD steel tube	PG13.5 Thread or M20x2.5 Thread	Standard length of steel tube: 20 cm	Steel tube length >20 cm
Steel tube	XX-ST-1/4	Sensor in 1/4" OD	Swagelok Ferrule and nut	Standard length of steel tube: 4 cm	Steel tube length up to 9 cm
Flow cell	XX-SL-1/4 or 1/8	Flow cell sensor in 1/4" or 1/8" Swagelok T-piece		1/4" or 1/8" Swagelok Tee	
Flow cell	XX-PEEK-1/8 or 1/16	Flow cell sensor in 1/8" or 1/16" PEEK T-piece		1/8" or 1/16" PEEK T-piece	

Sensor specifications

Type	Measurement range for H ₂ sensors	Measurement range for O ₂ sensors	Detection limit	Response time (90%)	Pressure tolerance	Temperature range
Low range	0-80 µM 0-10%	0-285 µM 0-21%	< 0.05 µM	< 15 s	20 bar	0-60 °C
Standard range	0-2000 µM 0-250%	0-1355 µM 0-100%	0.3 µM	< 15 s	20 bar	0-60 °C
High range	> 2000 µM > 250%	> 1355 µM > 100%	Depends on range	< 15 s	20 bar	0-60 °C



Version: September 2025