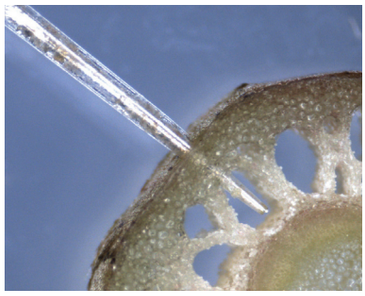
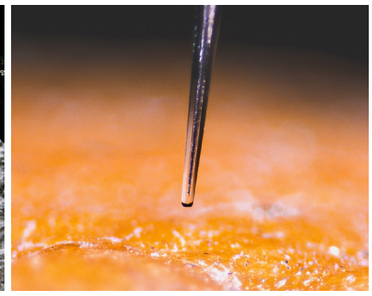
UNISENSE

ENABLING

MICROSCALE

RESEARCH





Unisense microsensors

O_2, H_2, H_2S, N_2O, NO, pH, Redox, EP, Temperature and more - microsensors are the foundation of our business

Microsensors are a unique research tool for investigating systems on a truly tiny scale, offering profound advantages with fast response times, high spatial resolution, and low detection limits.

Unisense microsensors are applied in a variety of research fields, from brain research and physiology to microbiology, ecophysiology, and deep-sea research. Although made of glass, microelectrodes are sturdy in their longitudinal axis and can be inserted in plant or animal tissue, in microbial communities and even in coarse-grained sediments and soils.

Unisense provides several options for customizations and adaptations (see back for overview), making accurate measurements possible for even more applications. For a comprehensive list of applications and sensor specifications, please visit our website.

Microsensor advantages

- Extreme spatial resolution
- Fast response
- Non-destructive measurements
- High pressure resistance

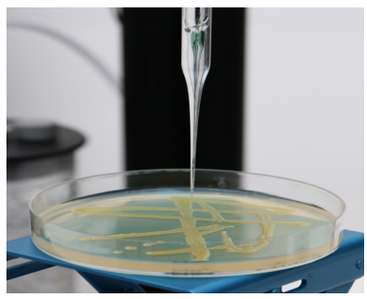
Sensor	Type	Tip sizes
Standard sensors		
O_2	Oxygen sensor	10-500 µm
Optode	Optical oxygen sensor	50-3000 µm
SULF, H_2S	Hydrogen sulfide sensor	10-500 µm
H_2	Hydrogen sensor	10-500 µm
N_2O	Nitrous oxide sensor	25-500 µm
NO	Nitric oxide sensor	15-500 µm
pH	pH electrode	10-500 µm
Redox	Redox electrode	10-500 µm
Reference	Reference electrode for pH and redox measurements	10-5000 µm
Reference	Robust Ref-RM	8000 µm
EP	Electrical potential electrode	100 µm
Temperature	Temperature measurements	200 µm
Temp-UniAmp	Temperature measurements	2000 µm
Special sensors		
STOX	Trace oxygen: A specialized front guard facilitates detection of extremely low oxygen concentrations (down to 0.005 µM)	100 µm

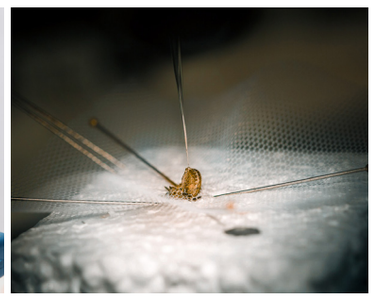
Sensor customizations

Most unisense electrodes and sensors can be customized for special needs. Typical customizations include **extra fast response**, **low stirring sensitivity**, or **higher sensivity** to the measured compound as well as tip size and sensor dimension.

Sensor adaptations

Adaptations	O_2	H_2	SULF, H_2S	N_2O	NO	pH	Redox	Ref	Temp
Protection cap	•	•	•	•	•	•	•	•	•
Needle sensor/Piercing needle sensor	• / •	• / •	• / •	• / •	• / •	• / •	• / •	• / •	• / •
Flowcell - glass	•	•	•	•	•	•	•	•	•
Flowcell - Swagelok	•	•	•	•	•	•	•	•	•
Flowcell - PEEK	•	•	•	•	•	•	•	•	•
Steel tube - 1/4''	•	•	•	•	•	•	•	•	•
Sensor in guide for MicroRespiration	•	•	•	•	•	•	•	•	•
Pressure compensation (600 bar)	•	•	•		•	•	•	•	•
Sensor casing with M20 thread	•	•	•	•	•	•	•	•	•





FOR MORE INFORMATION:

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