









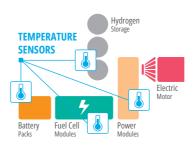


Standard or customized

Sensor components for fuel cells

A long lifespan of a fuel cell membrane is dependent on accurate sensor based control.

iST's capacitive humidity sensor components are designed for the fuel cell's operating conditions. They work well at high temperatures and elevated humidity levels, i.e. close to condensation.



Temperature sensors

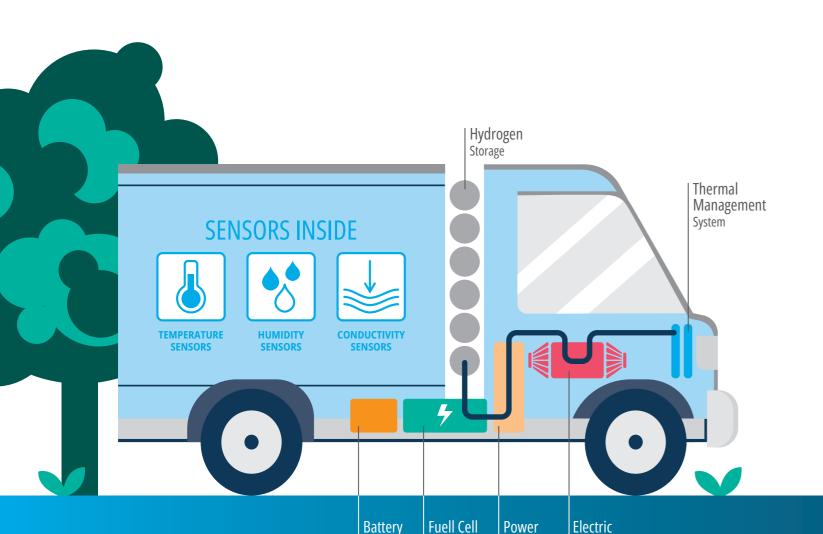
Precision platinum thin-fim sensors are ideal for the temperature monitoring of the coolant liquid in a low-temperature fuel cell.

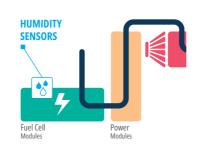
- Fuel cell stack
- Fuel filler
- Electric traction motorDC/DC converter
- Transmission

Fuel storage

- Battery pack
- Power electric controller







Humidity sensors

Humidity is measured in conjunction with a humidifier to moisturize the air supply to the fuel cell.

- Inlet humidity supply
- Humidifier



Conductivity sensors

With the continuous conductivity measurement at the ion exchange cartridge the coolant remains non-conductive.

Thermal management system



Customized sensor solutions for your application

Benefit from an agile co-creation of your next sensor solution. Use our competence at component level and focus on your added value for fast and successful product development - from simple design adaptations to new measuring principles: from concept prototyping to high-volume manufacturing.

Design

- Conceptioning
- Material selection
- Process technology
- Layout & geometry

Patterning

- Photolithography
- Screen printing
- Laser trimming
- Dry & wet etching

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Packaging

- Welding
- Bonding
- Soldering
- Hot-melt molding
- Injection molding

Services

- Electrical testing
- Optical/AOI testing
- ESD testing
- Calibration
- Metrology

Connection

- PTFE or PEEK insulated
- Ag, Ni/Au, Pt wire
- Cu/Ag, Cu/Ni wire
- AWG 34 to 20
- Flat or round wire
- Multistranded cables
- Ultra-thin wires
- Custom lengths
- Bondable, solderable
- Brazeable, weldable
- SMD & FlipChip
- ...and many more

CUSTOMIZED SENSOR SOLUTIONS





Substrate

- Alumina
- Zirconia
- Sapphire
- Steel
- Copper
- Glass
- Polyimide
- Aluminium nitride
- Silicon

Metal thin film

- Pt W Al
- Rh Cr Mo
- Alloys Ti Ag
- Ni Au

Metal thick film

- Pt
- Au
- Ni/Cr and other alloys

Dielectric thin film

- SiO₂
- Si₃N₄
- Ta₂O₅
- Polymers

Dielectric thick film

- Glass
- Organic polymers

