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Conductivity measurement is widely used in industrial and environmental applications as a simple and inexpensive way to control the ion content in a solution. Our conductivity sensor components are designed for system integrators that plan to take advantage of a compact assembly options of conductivity in their products or design a sensor probe and transmitter.

Conductivity sensors

iST has combined thin- and thick-film technologies to develop ceramic-based conductivity sensors that include a resistive temperature sensor (Pt1000 IEC 60751 F0.3), thus allowing for accurate compensation at the point of measurement.

- Wide conductivity range from from 10 μS/cm-200 mS/cm
- Available with different chip sizes and cell constants
- Wide temperature range from -30 °C up to +100°C
- Integrated RTD for temperature measurement and/or compensation

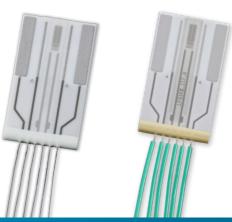
Our conductivity sensors typically consist of two current electrodes and two measuring electrodes. This basic design can be adjusted to specific applications and requirements. Since one of our main competences is the development of customized sensors, we encourage our customers to reach out to us to discuss their application and requirements, so we can recommend a sensor with an appropriate geometry and cell constant.

Conductivity sensor LFS1710 with integrated temperature sensor

Our LFS1710 is optimal for water quality and waste water treatment applications with a conductivity measuring range from 0.2 mS/cm to 200 mS/cm (typical cell constant of 0.44 cm⁻¹)



- Wide conductivity and temperature range
- Fast response time
- Optimal accuracy
- Resistance to various chemicals
- Excellent long-term stability





iST offers a wide range of sensors based on different technologies suitable for any application.

Standard or customized

Conductivity sensor LFS1505 with integrated temperature sensor

Ideal for applications with a conductivity measuring range from 100 µS/cm to 200 mS/cm with integrated temperature sensor.

- Fast response time
- Highly linear over wide range for easy calibration
- Wide temperature range -30 °C up to +100 °C
- Resistance to various chemicals
- Four-electrode measurement
- Excellent long-term stability
- Ideal for low-cost solution for handheld instruments in medical technology



Commodity conductivity sensor LFS1505

Our LFS1505 thick-film commodity conductivity sensor fits easily into small handheld measuring devices as well as single use and disposable applications.

- Fast response time
- Wide temperature range -30 °C up to +100 °C
- Resistance to various chemicals
- Adaptable to the needs of any application
- Single-use application
- Ideal low-cost solution for life science applications





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

Substrate

- ESD testing
- Calibration
- Metrology

AluminaZirconia

Sapphire

Steel

Copper

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



SOR SOLUTIONS



- GlassPolyimide
- Aluminium nitride
- Silicon

Metal thin film

- PtWAl
- Rh Cr Mo
- Ti Ag Alloys
- Ni Au

Metal thick film

- Pt
- Au
- Ag
- Ni/Cr and other alloys

Dielectric thin film

- SiO₂
- Si₃N₄
- \blacksquare Ta₂O₅
- Polymers

Dielectric thick film

- Glass
- Organic polymers

