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# IV4 – Optimal for stable continuous single parameter dip-in applications

iST's IV4 biosensor is a flexible stripe with large form factor ideal for direct dipping in the measurement media. It is designed for the detection of a single analyte, glucose as standard. This sensor is ideal for applications that require in-line continuous measurement with high reliability.



- Excellent long-term stability
- Long shelf life
- Gamma and beta sterilization compatible
- Fast response time
- Outstanding reliability
- Reference, counter and blank electrodes on-chip
- Suitable for bioreactors or aseptic media





# LV5 – Multi-parametric measurements

Our LV5 sensor is a flow-through biosensor and offers continuous multi-parametric readout. Up to 4 analytes can be measured simultaneously (glucose, lactate, glutamine, glutamate). The sensor features a very small flow cell (1  $\mu$ L) and therefore requires minimal sample volumes when used in analyzer mode.



- Excellent long-term stability over a month in continuous measurement mode
- Long shelf life
- Gamma and beta sterilization compatible
- Suitable for continuous and analyzer measurement modes
- Fast response time
- Reference, counter and blank electrodes on-chip
- Integrated flow cell
- Suitable as components for medical devices, bioreactor process control units, sampling systems in laboratories, and food and pharmaceutical industries





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

# **Standard or customized**

# SIX Biosensor Transmitter – Evaluation kit for amperometric biosensors

The SIX Biosensor Transmitter enables a direct evaluation of LV5 and IV4 biosensors. It can be directly connected to a computer via USB or to any microprocessor via a standard TTL-serial interface. The evaluation software bioMON is also available for the acquisition of measurement data and its analysis in real time.



- USB connectivity for easy evaluation
- Very high electrical current measurement precision (approx. 20 pA)
- Very light weight
- Evaluation software bioMON available
- Current range can be factory-adjusted to meet specific requirements
- OEM version with serial interface for easy integration in custom developments
- 6 current channels with common reference and counter terminals



## Microfluidic accessories

Our daughter company, Jobst Technologies GmbH, offers a wirde range of microfluidic products and services. For more information on microfluidic actuators, connectors, flow cells and integrations, contact iST.

# Development & technology partner

Working with iST as innovation partner saves our customers a lot of time and effort. Instead of developing and manufacturing a sensor component, they can simply acquire our expertise and support organization to benefit their own product.

Benefit from an agile co-creation of a sensor with iST and enable your business to focus on your core competence: From simple adaptions of our sensors to fit your application's needs to new development of a tailor-made sensor – from early prototyping to series manufacturing.

# 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** 







- Ni/Cr and other alloys
- Dielectric thin film

# **Substrate**

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

### Metal thin film

Al

Mo

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

- Metal thick film
- Pt
- Au

- SiO<sub>2</sub>
- Si₃N₄
- Ta<sub>2</sub>O<sub>5</sub>
- Polymers

#### Dielectric thick film

- Glass
- Organic polymers

