



B.IV4

Strip-type biosensor

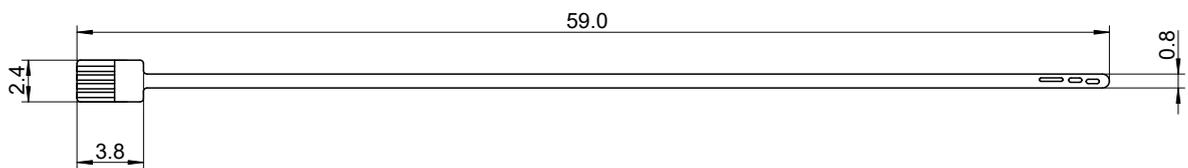
For various bioanalytical applications

A product of Jobst Technologies

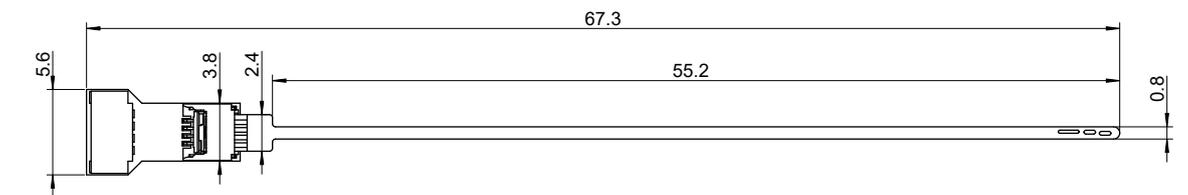
Benefits & Characteristics

- Enzyme-based amperometric measurement
- Excellent long-term stability
- Reference, counter and blank electrodes on-chip
- Suitable for dip-in applications
- For industrial applications
- Outstanding reliability
- Fast response time
- Gamma and beta sterilization compatible
- Small size

Illustration



B.IV4 Sensor



B. IV4 Sensor with IDC



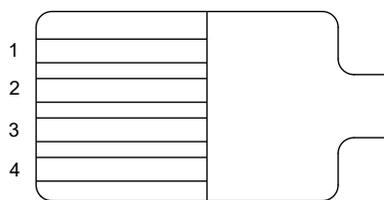
Technical Data

| | | |
|--|---|---|
| Dimensions | See illustration above. Dimensions in mm | |
| Measurement principle: | Enzymatic amperometric (oxydase enzymes and H ₂ O ₂ oxydation) | |
| Working electrode: | Platinum covered with enzyme membrane | |
| Blank electrode: | For background compensation | |
| Reference electrode: | Silver / silver chloride | |
| Counter electrode: | Platinum | |
| Measurable analytes: on request: | Glucose Lactate, Glutamine, Glutamate | |
| Operating measurement range at 37 °C: | Glucose: | 0.1 mM to 50 mM |
| | Lactate: | 0.05 mM to 25 mM |
| | Glutamine: | contact IST AG |
| | Glutamate: | contact IST AG |
| | Notes: | - measured in acetate buffer at 37°C - contact IST AG for buffer composition - other measurement ranges on request |
| Sensitivity at 37 °C: | Glucose: | typical 0.4 nA/mM |
| | Notes: | - measured in acetate buffer at 37°C - contact IST AG for buffer composition - other measurement ranges on request - info on other analytes on request |
| Sterilization: | Irradiation (beta, gamma) - recommended dose: < 25 kGy - sensitivity increases according to applied dose - lifetime decreases according to applied dose Initial bioburden < 1CFU per sensor Do not use organic solvents For more information contact IST AG | |
| Time (t ₉₀ %) to first measurement: | ~ 30 min after storage at 37 °C | |
| Time response (t ₉₀ %) at 37 °C: | < 90 s in acetate buffer at 37 °C | |
| Temperature influence: | ~ 3.8 %/°C on signal | |
| Storage conditions: | +4 °C to +35 °C, desiccated | |
| Shelf life at recommended storage conditions: | > 6 months (from delivery) | |
| | > 2 years from fabrication | |
| Operational life time: | Glucose: | > 120 days at 20 mM > 50 days at 50 mM |
| | Lactate | > 7 days at 8 mM |
| | Notes: | - measured in acetate buffer at 37 °C - life time may vary in other buffer systems |
| Operating Temperature: | 15-42 °C | |
| pH Range: | 6-8 | |
| Drift at 37 °C: | < 5%/day | |
| Suitable media: | bicarbonate, acetate, imidazole buffers - to be used in buffered media only - buffer must contain chloride, [Cl ⁻] ca. 110 mM - not suitable for direct use in tap water or DI-water - for information on buffer systems please contact IST AG | |
| Electrical connection: | FC: compatible with 0.5-mm pitch FFC/FCP ZIF connectors IDC: JST SUR Header 4 Pos 0.8 mm Female | |

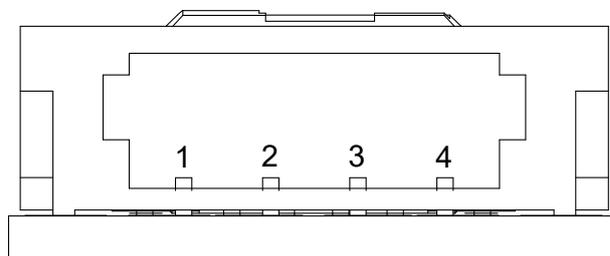
General note: Performance data in this document was determined in acetate buffer at 37 °C, pH 7 and normal atmospheric conditions. All parameters may vary in other media.



Pin assignment



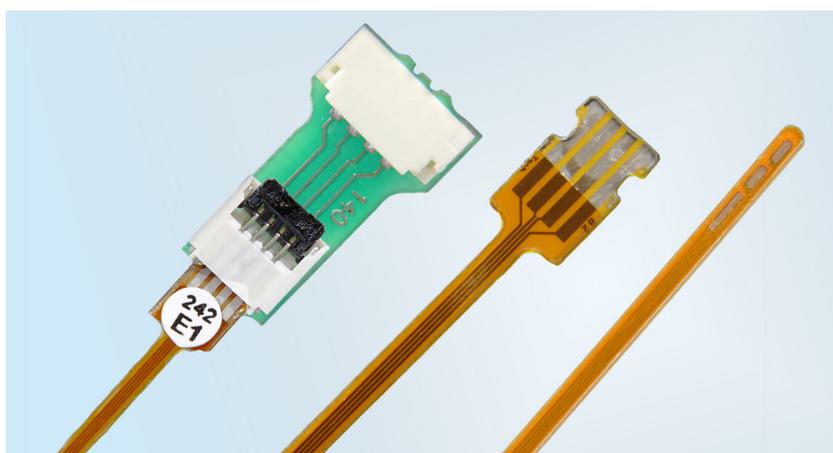
B.IV4 Sensor



B. IV4 Sensor with IDC

| 1 | 2 | 3 | 4 |
|-----------|---------|-------|---------|
| Reference | Counter | Blank | Glucose |

Product Image



Left: B.IV4 Sensor with IDC
Center: B.IV4 Sensor
Right: Sensing area

Order information

| | Glucose | Glucose with IDC | Lactate with IDC |
|-------------------|------------|------------------|------------------|
| Reference | B.IV4.G.FC | B.IV4.G.IDC | B.IV4.L.IDC |
| Order Code | 105127 | 105192 | 105191 |
| Former order code | 390.00148 | 390.00231 | 390.00230 |
| Other analytes | on request | | on request |

Disclaimer

For evaluation use by professionals only. Not for medical, diagnostics and use on humans. For more information contact IST AG.



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