



B.LV5.F.GL.FC.S Biosensor array

For bioanalytical applications a flow-through sensor A product of Jobst Technologies

Benefits & Characteristics

- Enzyme-based amperometric measurement
- Excellent long-term stability
- Stable in continuous monitoring and analyzer mode
- Reference, counter and blank electrodes on-chip
- Integrated flow cell (various volumes)
- For industrial applications

Outstanding reliability

Suitable for multiparametric measurements

- Fast response time
- Gamma and beta sterilization compatible
- Suitable for flow-through applications

Illustration¹⁾



1) For actual size, see dimensions

Technical Data²⁾

Dimensions - chip (L x W x H in mm):	10 x 4 x 0.4 (1.23 mm with flow cell)		
Dimensions - flow cell $(V_{INTERNAL})^{3)}$:	0.3 µL to 1 µL	~ 8 mm x 600 µm (0.15, 0.5 mm tubes)	
Fluid connection (Ø _{INNER}):	0.5 mm (0.15 mm available upon request)		
Working electrode:	Platinum covered with enzyme membrane		
Blank electrode:	For background compensation		
Reference electrode:	Silver / silver chloride		
Counter electrode:	Platinum		
Measurable analytes ³⁾ :	Glucose, Lactate, Glutamine ⁴⁾ , Glutamate ⁴⁾		
Operating measurement range at +25 °C (for extended measurement ranges please contact IST AG) ⁵⁾ :	Glucose:	0.05 mM to 25 mM / 0.01 to 4.5 g/l	
	Lactate:	0.02 mM to 15 mM / 0.002 to 1.5 g/l	
	Glutamine:	0.04 mM to 20 mM / 0.006 to 3g/l	
	Glutamate:	0.04 mM to 10 mM / 0.006 to 1.5 g/l	



physical. chemical. biological.



Sterilization:	Beta or gamma sterilization is possible (25 kGy typical) Sensitivity increases upon radiation; lactate sensors life time is reduced Initial bioburden < 1 cfu per sensor	
Time to first measurement after storage at +37 °C:	~ 15 min	
Time response (t_{90} %) at +37 °C ⁵):	< 25 s	
Temperature influence:	~ 3.5 %/°C	
Storage conditions:	+4 °C to +35 °C, desiccated	
Shelf life:	> 6 months (at recommended storage conditions)	
Operational life time ⁶⁾ :	 > 2 weeks continuous operation > 4 weeks in analyzer mode 	
Flow cell pressure drop:	\sim 700 µl/min/bar (with a 1 µl flow cell)	

2) All performance data was obtained using an acetate buffer. For more information about medium composition please contact IST AG

3) Larger cell volumes available upon request

4) Upon request

5) Parameters may vary depending on the medium type

6) Limited by lactate sensor; may decrease by higher analyte concentration and / or less dissolved oxygen in medium

Product Photo



Sensor only



Packaged sensor



physical. chemical. biological.

Pin Assignment⁷⁾



Packaged Sensor

Innovative Sensor Technology IST AG offers a highly robust packaged version of the LV5 sensor for easy mounting and testing.



Fluidic connection:

1 x female luer lock, 1 x male luer lock



physical. chemical. biological.



Order Information - Sensor only Description:

Description:	Item number:	Former main reference:
B.LV5.F.GL.FC	105117	390.00129
Order Information - Packaged Sensor		
Description:	Item number:	Former main reference:
B.LV5.GL.C010.ST.L050.ECC.R	105128	390.00154
Disclaimer		

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



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