



# GlucoSense Sensor

## Specification Sheet



The Hamilton Glucosense Optical Sensor provides real-time, in-situ glucose monitoring essential for bioprocessing R&D. Its easy-to-operate design ensures accurate measurements from day one, optimizing cell culture productivity. Overcome your biopharma challenges with reliable glucose control.

## Product Specifications

<b>Process Connection</b>	PG13,5
<b>Wetted Parts</b>	Titanium 3.7035 coated with diamond like carbon Diamond EPDM (Ethylene propylene elastomer) See compliance details in 2.1 Material Specification document REF 111011993
<b>Electrical Connector</b>	VP8
<b>Sensor Output</b>	Arc: Modbus
<b>Measuring Range</b>	0.5 to 25.0 g/L
<b>pH Value</b>	The specified glucose measurement accuracy applies when the process pH remains constant within $\pm 0.2$ units
<b>Electrolyte</b>	None
<b>Accuracy at 25 °C</b>	$\pm 0.5$ g/l after product calibration at the measurement temperature. Valid for whole measurement range.
<b>Sensor Insertion Depth</b>	Minimum 20 mm above the sensing element
<b>Temperature Sensor</b>	NTC 47 kOhm
<b>Configurable Values</b>	Glucose concentration: g/l, mg/dl, mg/l, mmol/l; Temperature: K, °C, °F
<b>O-ring Material</b>	EPDM (Ethylene propylene elastomer)
<b>Digital Interface</b>	RS485 Modbus (max. 32 addresses)
<b>Operating Voltage</b>	10 to 27 VDC
<b>Certificate</b>	Yes, factory calibration with certified solutions
<b>Diameter</b>	12 mm
<b>Autoclavable</b>	Yes (130 °C, 30-minute sterilization duration)

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<b>Operating Temperature Range</b>	-10 to 130 °C; the sensor provides no Glucose reading above 60 °C
<b>Pressure Range bar g</b>	0 to 5 bar(g)
<b>Protection Rating</b>	IP68
<b>Required Flow</b>	None
<b>Temperature Measuring Range</b>	The declared glucose measurement accuracy is valid within the temperature range from 25°C to 38°C.
<b>Software</b>	ArcAir 3.11 or successive releases
<b>Surface Quality of Titanium</b>	Titanium coated with diamond like carbon with Ra < 0.4 µm (N5)

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Specifications are subject to change without notice

**Spec. Version A**

<https://www.hamiltoncompany.com/sensors/glucose-sensors/glucosense>



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