

# oatsens®

## Intuitive biosensor to measure the sugar content of oat drinks

DirectSens offers a glucose and maltose assay kit optimized for customer needs. Together with the DirectSens® Reader you will be able to get a precise sugar analysis result in 3 minutes.



Results in 3 minutes



Easy test protocol



Excellent accuracy



Optimized for oat drinks



# oatsens®

## Why and where should I use OatSens®

During oat drink production, starch is mainly hydrolyzed to the sugars glucose and maltose. These two sugars determine the sugar content and are crucial for the sweetness of an oat drink.

To achieve constant product quality sugar levels can be monitored at following processing steps:

### Product Development:

Determine the ideal amount of enzymes for the fermentation process. Develop new oat-based products to meet changing customer and market preferences.

### Process Optimization:

Check the influence of different raw materials, enzyme dosages and processing times on your manufacturing process.

### Oat Base Production:

Determine the ideal timepoint for enzyme deactivation to ensure constant sugar level of the product.

### Batch-release:

Ensure by quality control that the produced batch meets the specifications.

### Scale-up of Production:

Validate the performance of a new production line.



## OatSens® Sugarfree Biosensor Assay Kit

# Product Details

<b>Product Name:</b>	OatSens®SugarFree Biosensor Assay Kit
<b>Product Code:</b>	HK1025 (25 biosensor assays)
<b>Key Benefits:</b>	Fast and precise detection of glucose and maltose, easy to use, especially developed for oat drinks.
<b>Suitable for:</b>	Direct measurement of analyte in combination with biosensor
<b>Measurement type:</b>	Enzymatic biosensor, amperometric detection
<b>Function Principle:</b>	The glucose- and maltose-specific enzymes on the biosensors oxidize the molecules in the sample. The current generated (electrochemical principle) depends on the amount of sugars and can be detected directly and accurately using the DirectSens® Reader (DR10).
<b>Glucose and Maltose Relevance:</b>	During oat drink production, starch is mainly hydrolyzed to the sugars glucose and maltose. These two sugars determine the sugar content and are crucial for the sweetness of an oat drink.
<b>Limit of Quantification:</b>	0.1 % glucose and 0.1 % maltose (equivalent to 1 g/L)
<b>Quantification Range:</b>	0.1 % – 1 % glucose and 0.1 % – 1 % maltose in oat drinks
<b>Measuring Time:</b>	< 3 minutes
<b>Sample Preparation:</b>	1:11 dilution with buffer
<b>Sample Volume:</b>	100 µL for glucose and 100 µL for maltose
<b>Temperature:</b>	Operation: 22 ± 2 °C (72 ± 3 °F) Storage: 2 – 8 °C (36 – 46)
<b>Shelf Life:</b>	12 months
<b>Dimension:</b>	L: 120 mm (4.72 in), W: 90 mm (3.54 in), H: 115 mm (4.53in)
<b>Weight:</b>	469 g
<b>Components Assay Kit:</b>	25 single packed glucose biosensors (GH10) • 25 single packed maltose biosensors (MH10) • 2 bottles (each 125 mL) of buffer (HB10) • 1 vial (2mL) of positive control: glucose and maltose solution 0.5 g/L (HC10) • Manual • Quality Assurance Certificate
<b>Data Export:</b>	In .csv/.xls file: sample name, date, time, test type, parameter, result, unit (g/L, %, mg/100g, ppm), sensor batch, sensor ID, sensor expiry date, reader internal ID, software version.
<b>Validation of Method:</b>	Validated internally against reference High-Performance Liquid Chromatography and Ion Chromatography.



## About Us

### Inspired by nature – applied in technology

DirectSens is a company dedicated to the development of 3rd generation biosensors. It was founded to translate scientific results into innovative solutions for the detection of sugars and successfully launched its first product in 2015. Over the past decade, DirectSens has developed a technology platform that can be used for the detection of various carbohydrates. The flexibility of the technology along with its simple architecture allows DirectSens to address different markets where innovation in sensor technology is in demand. DirectSens was founded by a team of skilled scientists and complemented by experienced product developers and dedicated executives. An international advisory board constantly challenges the team and reviews progress.

## Get in Touch



[www.oat-sens.com](http://www.oat-sens.com)

### Productmanager

Dipl.-Ing. Elisabeth Halbmayr-Jech

✉ [oatsens@directsens.com](mailto:oatsens@directsens.com)

☎ +43 660 7191187