



## Wine testing made easy

The most convenient wine analysis tool available



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# Sentia: a wine analyzer for fast and reliable testing

The Sentia analyzer is the most convenient wine analysis tool available to winemakers, laboratory scientists and cellar hands. Sentia is a portable, hand-held potentiostat that performs electrochemical detection methods, and is currently equipped to test 6 key wine analytes measured during the winemaking process:

- Acetic acid
- Fructose
- Malic acid
- Free SO<sub>2</sub>
- Glucose
- Titratable acidity



**Rapid results for fast decisions**



**Easy and intuitive for any team member**



**Hand-held size lets you analyze in the winery**



**Auto calibrating**



**Upload results to a PC, tablet or phone via Wi-Fi**



**Affordable**



**Touchscreen display**



**Reproducible results comparable to other test methods**



**More than 100 tests achievable on a single charge**



**No hazardous chemicals for safe handling**

# Sentia device features



1. **Power button**  
to switch ON/OFF
2. **Touch screen display**  
for easy operation
3. **Test strip eject button**  
for mess free disposal
4. **Test strip port and protective cap** for insertion of Sentia test strips and protection of hardware
5. **USB charge port**  
for charging

## How does Sentia work?

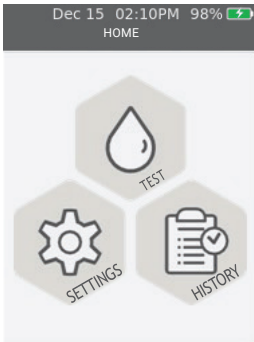
Originating from a pedigree of modern POC medical devices designed by Universal Biosensors, Sentia uses the same expertise in healthcare technology to deliver meaningful, accurate and consistent results for the wine industry in just minutes.

Specialized test strips unique to each test method have a series of widely recognized and researched industry common reagents dried down into a small reaction chamber contained within the strip. Once this test strip is inserted into the device and a single drop of sample is applied, the reagents will dissolve and react with the wine, all whilst the device delivers a voltage to the strip electrodes. Electrons are consequently transferred at the strip electrode surface, and the current generated from this exchange of electrons is measured using electrochemical techniques such as squarewave voltammetry and amperometry.

Machine based learning algorithms and calibration parameters generated from industry reference methods are then applied to give you a final result within minutes of sample application.

# How to perform a test

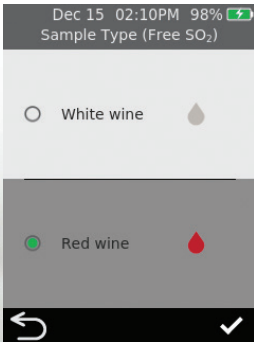
With intuitive software designed to guide you through the process step-by-step, testing has never been so easy.



## Select an analyte for testing

From the home screen, tap on the TEST button. This takes you to the TEST TYPE screen for analyte selection.

1



## Select sample type and name

Sentia will prompt you to select a wine style (red or white) and input sample details.

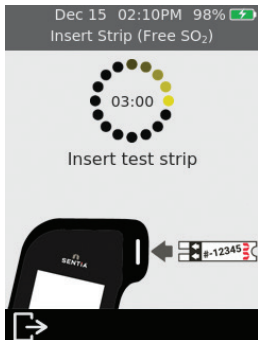
2



## Select correct strip type and index number

Each analyte has its own unique test strip, and each strip batch an indentifying index number. The index number provides strip calibration data.

3



## Insert strip

Strip arrow markings make the correct orientation simple.

4



## Apply sample

Transfer a single drop ( $\geq 8 \mu\text{l}$ ) of sample to the semi-circular 'porch' on the strip. Note: some samples require a dilution step before analysis.

5



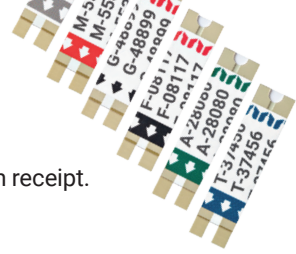
## Detection

Results detected within 1-2 minutes for most analytes.

6

# Sentia test strips and diluents

All Sentia strip vials contain 25 strips and should be refrigerated upon receipt.  
Storage conditions: 2°C - 8°C (35.6°F - 46.4°F).



## Acetic Acid



**Product code:** 30730

Monitor wine acetic acid levels in real-time for best prevention of taint formation during storage. High acetic acid levels are associated with microbial spoilage and a vinegar smell and taste.

### Specifications:

**Sample type:** red or white wine

**Measuring range:** 0.1 to 1.5 g/L

**Dilution required:** Yes

**Time to test one sample:** <3.5 minutes

## Free SO<sub>2</sub>



**Product code:** 30230

Analyze free sulfur dioxide levels on post-fermentation wine direct at barrel or tank to prevent microbial and oxidative faults developing.

### Specifications:

**Sample type:** post-fermentation red or white wine

**Measuring range:** 3 to 50 mg/L

**Dilution required:** No

**Time to test one sample:** <1 minute

## Malic Acid



**Product code:** 30430 (strips)  
91002 (diluent)

Track the progress of an active malolactic fermentation direct at barrel or tank for real-time malic acid levels.

### Specifications:

**Sample type:** grape juice; red or white wine

**Measuring range:** 0.05 to 5 g/L

**Dilution required:** Yes

**Time to test one sample:** <1 minute

## Residual Sugars (Glu/Fru)



**Product code:** 30330 (Glu)  
30530 (Fru strips)  
91004 (Fru diluent)

Confidently track the progress of a primary ferment to dryness. Act to mitigate sluggish or stuck ferments quickly by measuring total residual sugars and the ratio of individual fermentable sugars.

### Glucose specifications:

**Sample type:** red or white wine  
**Measuring range:** 0.1 to 10 g/L  
**Dilution required:** No  
**Time to test one sample:** <1 minute

### Fructose specifications:

**Sample type:** red or white wine  
**Measuring range:** 0.1 to 10 g/L  
**Dilution required:** Yes  
**Time to test one sample:** <2 minutes

## Titratable Acidity (pH 7.00 & 8.20)



**Product code:** 30630

Measure titratable acidity on both grape juice and wine samples, to attain valuable information on grape ripeness and to assess acidity levels before acid adjustments.

### Specifications:

**Sample type:** grape juice;  
red or white wine  
**Measuring range:** 3 to 15 g/L  
**Dilution required:** No  
**Time to test one sample:** <1 minute

## Wine Analyzer Case



**Product code:** 90210

This stylish slimline case will protect your Sentia from drops and general wear and tear, while also enhancing its functionality.

The case includes keyboard stylus, removable lanyard and belt clip features, and the bright trim enhances visibility in the winery.

### Specifications:

**Dimensions:** 161.5 x 92 x 41.5 mm  
(6.36 x 3.62 x 1.63 in)  
**Weight:** 89 g (3.14 oz)



## About Universal Biosensors

Universal Biosensors Inc (UBI) is a global biosensor company and a world leader in electrochemical cell technology. UBI's ambition is to utilize its patented biosensor technology to develop a diverse range of biosensor test strips used in our hand-held portable analyzers; for cost effective, effortless, and accurate detection of analytes of interest, within many industries including human health, animal health, environmental, and agriculture. UBI is a USA Delaware company listed on the Australian Securities Exchange (ASX:UBI) and operates from its head office, manufacturing facility, and research laboratory in Melbourne, Victoria, Australia.

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