

## FTIR analyzer



# Lyza 5000 Wine

## THE EVOLUTION OF WINE ANALYSIS

The novel multiparameter FTIR analyzer Lyza 5000 Wine is your solution for the analysis of must, must in fermentation, and wine.

Fast measurements for a multitude of parameters ensure that you have all the information you need – during all stages of wine production. Thanks to a quick setup and pre-installed models, all important results for wine analysis, including ethanol, sugars, and acid profile, are just a tap away.

Lyza 5000 Wine can be used as a stand-alone device, automated for high throughput, or can be connected to your existing benchmark instruments – Anton Paar density and alcohol meters – for the most powerful wine analysis.

**THE FTIR ANALYZER YOU  
HAVE BEEN WAITING FOR**

FIND OUT MORE



[www.anton-paar.com/  
Lyza5000Wine](http://www.anton-paar.com/Lyza5000Wine)

Results in less than 1 minute

Models for must, must in fermentation,  
and wine included

15+ parameters in 1 measurement

Up to 48 samples in a row

Zero proprietary reference solutions needed

30+ subsidiaries and  
50+ distribution partners



# Lyza 5000 Wine: Features

## LIFELONG SUPERIOR PERFORMANCE

Lyza 5000 Wine's precisely temperature-controlled 12-bounce ATR measurement cell is designed to deliver fast measurements in less than 1 minute as well as stable results throughout the whole wine production process.

## USER-FRIENDLY TOUCHSCREEN INTERFACE

With Lyza 5000 Wine's state-of-the-art user interface, single measurements, adjustment of models, or even complex measurement routines are only one tap away. Quick setup and minimal measurement times for more than 15 parameters in one go let you handle huge workloads with ease.

## LIVE NOTIFICATIONS AND GUIDED WORKFLOWS

Based on a water reference measurement, the Cleaning Performance Index (patent pending) advises you when to clean, in order to guarantee precise results at any time. After an automatic reminder, integrated workflows guide you through water and ethanol reference measurements - no proprietary reference standards are necessary.

## AUTOMATION WITH XSAMPLE 520

Together with Lyza 5000 Wine, the Xsample 520 sample changer automates the filling and measurement of up to 48 samples in a row. Water reference measurements are performed automatically and new measurements can be queued at any time, even during running measurements.

Use Xsample 520 to increase your sample throughput and to simplify your daily routines – all at an affordable price.

## MORE PARAMETERS IN ONE SETUP

The combination of Lyza 5000 Wine with your existing Anton Paar instruments, such as a density meter, an alcohol meter, a pH meter, a turbidity meter, and a sample changer, provides the most powerful measurement system in wine analysis. Receive results from all instruments in a single report with only one sample preparation, one filling, and one measurement.

## DATA HANDLING AND LIMS INTEGRATION

Lyza 5000 Wine supports you in every way to efficiently process and distribute your measurement results. Reports can be automatically printed and digitally exported to your hard drive or network storage. For the highest degree of automation, Lyza 5000 Wine is completely integrated into your LIMS system via Ethernet and Wi-Fi.



| MEASUREMENT SPECIFICATIONS       |       |              |                            |
|----------------------------------|-------|--------------|----------------------------|
| PARAMETER                        | UNITS | RANGE        | REPEATABILITY <sup>1</sup> |
| Ethanol                          | %v/v  | 0 to 14      | 0.03                       |
| Glucose                          | g/L   | 0 to 50      | 0.2                        |
| Glucose                          | g/L   | 50 to 160    | 0.2                        |
| Fructose                         | g/L   | 0 to 50      | 0.3                        |
| Fructose                         | g/L   | 50 to 160    | 0.4                        |
| Titrateable acidity <sup>2</sup> | g/L   | 0 to 13      | 0.07                       |
| Volatile acids                   | g/L   | 0 to 1       | 0.01                       |
| Malic acid                       | g/L   | 0 to 7       | 0.06                       |
| Tartaric acid                    | g/L   | 1 to 9       | 0.17                       |
| Lactic acid                      | g/L   | 0 to 2       | 0.04                       |
| pH                               | -     | 3 to 4       | 0.02                       |
| Density                          | g/mL  | 0.99 to 1.12 | 0.0001                     |
| Must weight <sup>3</sup>         | °Bx   | -2 to 29     | 0.04                       |
| Extract                          | g/L   | 0 to 350     | 0.4                        |
| Glycerol                         | g/L   | 0 to 10      | 0.1                        |
| Yeast assimilable nitrogen       | mg/L  | 0 to 300     | 8                          |

| TECHNICAL SPECIFICATIONS                 |   |
|--|---|
| Ambient temperature                      | 15 °C to 32 °C (59 °F to 89.6 °F), non-condensing         |
| Sample temperature                       | 15 °C to 35 °C  |
| Cell type                                | 12-bounce ATR Ge flow-through cell                        |
| Minimum sample volume                    | 14 mL   |
| Measurement time per sample <sup>4</sup> | 31 seconds  |
| Dimensions (L x W x H)                   | 450 mm x 340 mm x 240 mm (17.7 in x 13.4 in x 9.4 in)     |
| Cell temperature control                 | Peltier element / Stability ±0.005 °C / Accuracy ±0.03 °C |
| Power supply                             | AC 100 V to 240 V / 47 to 63 Hz / DC 24V, 3A              |
| Weight                                   | 15.2 kg (33.5 lbs)  |
| Communication interfaces                 | 5 x USB / RS-232 / CAN / Ethernet / Wi-Fi <sup>5</sup>    |
| Display                                  | 10.1 in PCAP touchscreen, TFT WXGA (1280 px x 800 px)     |
| Laser class                              | Class 1, enclosed hermetically                            |

| MEASUREMENT SPECIFICATIONS       |       |             |                            |
|----------------------------------|-------|-------------|----------------------------|
| PARAMETER                        | UNITS | RANGE       | REPEATABILITY <sup>1</sup> |
| Ethanol                          | %v/v  | 6 to 20     | 0.02                       |
| Glucose                          | g/L   | 0 to 150    | 0.2                        |
| Fructose                         | g/L   | 0 to 160    | 0.1                        |
| Sucrose                          | g/L   | 1.5 to 50   | 0.2                        |
| Titrateable acidity <sup>2</sup> | g/L   | 0 to 12     | 0.04                       |
| Volatile acids                   | g/L   | 0 to 1.5    | 0.02                       |
| Malic acid                       | g/L   | 0 to 7      | 0.06                       |
| Tartaric acid                    | g/L   | 0 to 5      | 0.05                       |
| Lactic acid                      | g/L   | 0 to 3      | 0.05                       |
| Gluconic acid                    | g/L   | 0 to 5.5    | 0.03                       |
| pH                               | -     | 3 to 4      | 0.01                       |
| Density                          | g/mL  | 0.98 to 1.1 | 0.0001                     |
| Must weight <sup>3</sup>         | °Bx   | -4 to 24    | 0.03                       |
| Extract                          | g/L   | 0 to 350    | 0.3                        |
| Glycerol                         | g/L   | 0 to 25     | 0.2                        |
| Total polyphenols                | g/L   | 0 to 3      | 0.08                       |

<sup>1</sup> Repeatability for 90 % of samples in a representative set of wines and musts

<sup>2</sup> Stated as tartaric acid equivalents to pH 7.0; additional outputs: sulfuric acid equivalents, endpoint pH 8.2, meq/L

<sup>3</sup> Available units: °Bx, °Oe, °KMW, °Bé, g/L

<sup>4</sup> After temperature equilibration

<sup>5</sup> Via external Wi-Fi dongle

#### HOW TO ACHIEVE SUPERIOR PERFORMANCE

A hermetically sealed, desiccated spectrometer core contains all optical components to ensure the most stable conditions for precise measurements: a permanently aligned cube-corner interferometer with potassium bromide beam splitter, gold-coated mirrors, and a pyroelectric DLATGS detector.

The heart of Lyza 5000 Wine, the 12-bounce attenuated total reflection (ATR) measurement cell, consists of Ge for maximum robustness and longevity. 12 interactions with the sample and accurate cell temperature control result in ideal signal intensities.



