

Cyranose® 320



Portable Handheld Electronic Nose

The **Cyranose® 320** is a rugged, efficient and *affordable* tool to quickly perform on-site analysis. It is used by manufacturing and quality professionals to make accurate determinations for the aroma quality associated with their products or raw materials. It is also used in R&D and product development to assess new formulations, new fragrances and new products.

The **Cyranose®** incorporates the patented **NoseChip™** nanocomposite sensor array, internal air sampling pump and advanced pattern recognition algorithms. These technologies enable rapid detection and identification of substances and mixtures based on their chemical profile.

Each **Cyranose®** is customized to your sensing application. Multiple applications are programmed and stored on the instrument as individual methods. Non-expert users simply select the appropriate method by name and begin making measurements. The results are displayed with user-defined, simple and actionable messages, such as “pass”, “fail”, or “Formulation 15” and a 5-star quality rating. All results are stored in the on-board database for easy access and reporting. Rapid qualitative measurements or “sniff” tests lasting 5 to 15 seconds for discrimination and identification can be extended to quantitative headspace analyses using suitable standards for multi-sensor calibration.

The **Cyranose® 320** is used in diverse industries including consumer products, chemicals, food & beverage, packaging, plastics, pet food, pulp and paper, as well as outdoor air quality and environmental odor control. It is also widely used for medical research investigations including screening and diagnosis of upper respiratory disease by measurement of breath samples. As of 2014, there are over 200 publications for industrial and medical research published by **Cyranose®** users worldwide.



Specifications

Sensor Technology

NoseChip™ Nanocomposite Sensor Array with 32 sensors
Detects a wide range of gases and vapors to low ppm level

On Board Memory

5 measurement methods and 6 classes per method
10 sample exposures per class

PC Software

PCnose™ for 2-D and 3-D data visualization, **smellprints™**,
continuous data streaming, data logging, method development
Database of all measurements and monitoring events
Unlimited number of method files for all applications

Algorithms

PCA, KNN, Kmeans, CDA, SVM and more

Size and Weight

4 x 8.8 x 2 in (10 x 22 x 5 cm), 30 oz (0.9 kg)

Display

Easy to read LCD visual display with backlight

Operational Specifications

Operating Temperature

32°F to +104°F / 0°C to +40°C

Storage temperature

-4°F to +122°F / -20°C to +50°C

Relative Humidity

0% to 95% (non-condensing)

Battery

Rechargeable NiMH battery or 4 AA; up to 4 hrs

Safety and Warranty

CE, FCC; 1 year warranty; not IS or CI.1 Div.1/2

Additional Features and Options



User and application specific training courses

Custom NoseChip™ Sensor Modules

Novel thin-film nanosensors are available on plug & play modules for the **Cyranose®**. Custom **NoseChip™** sensor modules provide enhanced sensitivity and selectivity for gas and vapor detection. Contact Sensigent for the latest sensor material options that include chemically-modified single-wall carbon nanotubes, metallic nanoparticles and conductive composites.

CDAnalysis™ – Chemometric Data Analysis

Sensigent's extended analysis software package provides even more classification algorithms (HCA, SIMCA, SVM, single-class), data analysis options, new feature extraction routines (importance index) and more visualization tools for large and multiple data sets. Use **CDAnalysis™** for your most challenging sensing applications with your **Cyranose®** and other analyzers.

Each **Cyranose® 320** comes with everything you need to begin taking measurements and analyzing your results immediately

Note: All specification values are typical and may change without notice