

# Voice200ultra

The ultimate instrument for VOC analysis and quantification

## Key Benefits

Instantaneous identification and quantitation of VOCs and inorganic gases using a fully integrated, extensive chemical ionization library

Real-time air analysis to low part-per-trillion by volume (pptv)

Analysis of chemically diverse VOCs in a single analysis

Ease of operation with push-button simplicity and no sample preparation

Designed and engineered for use in commercial, industrial and research environments



## Specifications

### ANALYSIS CAPABILITY

- Ideally suited to any gaseous sample of volatiles (including whole-air, headspace above solids and liquids, breath)
- Real-time quantitative analysis
- VOCs, semi-VOCs, and inorganic gases
- VOCs from surfaces using swab desorber accessory
- Simultaneous analysis of polar, non-polar, thermally labile and reactive compounds

### PERFORMANCE

- Start-up time: <10 minutes
- Reagent ions:  $\text{H}_3\text{O}^+$ ,  $\text{NO}^+$ ,  $\text{O}_2^+$ ,  $\text{OH}^-$ ,  $\text{O}^-$ ,  $\text{O}_2^-$ ,  $\text{NO}_2^-$ ,  $\text{NO}_3^-$
- Reagent ion switch time: 10 ms
- Mass range: 10 – 400 Da
- Mass resolution: unit mass resolution throughout the mass range
- Response time: <100 ms
- Sensitivity: up to 1000 cps/ppb
- Detection limit: from <1 pptv
- Accuracy: Better than +/- 5% in ppbv range
- Linearity range: >6 orders of magnitude
- Dynamic range: >6 orders of magnitude

### SAMPLE INTRODUCTION

- Whole air directly
- Sample bag
- Canister
- Direct breath
- Sorbent tube
- Swab
- Autosamplers
- Custom integration

## SYSTEM AUTOMATION

- Stand-alone operation without additional PC
- Simple operation via touchscreen interface
- Fully automated daily validation cycle for data quality assurance
- Comprehensive on-board hardware and software to self-monitor performance
- Integration with autosamplers via analog or digital interface

## CONSUMABLES

- Carrier gas: helium or nitrogen (purity >99.995%); gas purifier recommended for removal of trace organics and water
- Reagent ion source: water
- Validation standard
- Operate from a nitrogen generator for truly stand-off operation

## DATA OUTPUT FORMATS

- Live data streaming via TCP/IP Ethernet port
- Syft native XML format (used by LabSyft software)
- Generic spreadsheet format (CSV)
- Text format system information and raw data
- WITS
- Customized integration

## ENVIRONMENTAL CONDITIONS

- Ambient operating temperature: 10°C to 30°C (40°C with optional cooling module)
- Ambient operating humidity: 5 to 95%
- Storage extremes: -40°C to 65°C

## INTERFACES

- TFT colour 8" LCD touchscreen
- Online control for use in remote sites and rapid expert support
- 10/100 Ethernet (TCP/IP)
- Barcode scanner or keyboard (optional)

## PHYSICAL PROPERTIES

- Height: 900 mm (35.4 in.)
- Width: 725 mm (28.5 in.)
- Depth: 875 mm (34.5 in.)
- Weight: 200 kg (440 lb)
- Mobile options (e.g. van mounting)

## OPERATING PARAMETERS

- Power: 216-264 VAC, 47-63 Hz, 1.4 kVA
- Carrier gas consumption: Helium 360 sccm or Nitrogen 180 sccm
- Standard sample inlet flow: 20 sccm

## SAFETY CONFORMANCE

- IEC61010-1
- EN61010-1

## ELECTROMAGNETIC CONFORMANCE

- EN61326
- CISPR 11/EN 55011: Group 1, Class A

## OPTIONAL ACCESSORIES

- LabSyft software package (powerful data viewing, handling and interpretation modules; advanced method development; device integration; batch handling)
- High-performance inlet
- Breath head for the high-performance inlet
- Auto-validation inlet
- Dilution inlet
- Swab desorber
- Sample collection case with integrated sampling wand
- Sample bag flushing system
- Cooling module for warm climates (extends operation to 40°C)
- Autosamplers (vials, bottles, sample bags, canisters, thermal desorption tubes)
- Motor vehicle mounting hardware
- Customized integration with automated processing equipment, environmental monitoring systems, etc.