

STANDARD PTR-MS



Sensitive Real-Time Trace Gas Detector

>> 30 PPTV - 10 PPMV

The IONICON® Standard PTR-MS instrument is a very sensitive detector for volatile organic compounds (VOCs) that allows for continuous VOC quantification.

This PTR-Quad-MS product offers a low online detection limit in the pptv-range, even for complex gas mixtures, but nevertheless has an advantageous price.

Direct injection of sample gases without preparation contributes to the speed and simplicity that is common to all our instruments.

Selective qualitative and quantitative analysis of trace compounds in remarkably short measurement times combined with a system linearity range covering over five orders of magnitude make the Standard PTR-MS an essential tool for scientific laboratories and research groups.

Our unique soft ionization (PTR) technology together with our extensive experience in gas-phase ion chemistry and engineering of scientific instruments accounts for the reliability, low detection limit, very low mass fragmentation, fast response time and robustness of our PTR-MS systems.

- > low online detection limit (pptv-level)
- > real-time VOC quantification
- > soft ionization technology - low fragmentation
- > fast and easy direct sample injection

Find out more: www.PTRMS.com/products



STANDARD PTR-MS



ONLINE VOC DETECTOR - 30 PPTV SPECIFICATIONS*

- > Mass range 1-512 amu
- > Resolution < 1 amu
- > Response time: 100 ms
- > Measuring time: 2 ms/amu to 60 s/amu
- > Detection limit**: 30 pptv
- > Linearity range**: 30 pptv - 10 ppmv
- > Adjustable flow: 50 - 800 sccm
 - >> Inlet system (Dual inlet system available on request):
 - > 1.2 m long inlet hose - with internal inert (PEEK) capillary
 - > Inlet system heating: up to 150°C (302°F)
- > Reaction chamber heating range: 40 - 120°C (104 - 248°F)
- > Power supply and max. consumption: 100-230 V, 750 W
- > Dimensions (w x h x d): 55x86x78 cm (21.7 x 33.9 x 30.7 in.)
- > Weight: 130 kg (287 lbs)
 - >> Interfaces:
 - 1x Ethernet 10/100 Mbit RJ45 (TCP/IP)
 - 1x RS 232
 - 5x Digital outputs

*Specifications are subject to change without prior notice.

**Actual detection limit and linearity range are dependent on the substances measured, integration time and system set-up.

TECHNOLOGY

The innovative technology all IONICON Analytik products are based on is called PTR-MS (Proton Transfer Reaction - Mass Spectrometry).

This unique soft ionization method is based on proton transfer from H_3O^+ ions to all compounds with a higher proton affinity than water. Common constituents of air such as N_2 , O_2 , Ar, CO_2 etc. have lower proton affinities than H_2O and are therefore not detected. This is one of the main reasons for our market-leading low online detection limit for trace compounds in the range of a few pptv.

ROBUST & EASY TO USE

Our instruments are completely software controlled and are connected via a LAN-cable to a laptop computer. A single power button switches on the whole system. No gas supply is necessary and the instrument can be operated in nearly every environment. Light weight, space-saving and mounted on wheels our PTR-MS systems are often used for field campaigns or variable location measurements.

SERVICE & SUPPORT

We offer service contracts on our high-end PTR-MS systems and strongly recommend you to top up your solution with one of our maintenance vouchers to ensure optimum performance.

We offer one, two, three or more years service contracts covering the regular maintenance intervals, thus giving you the chance to concentrate on the important things. Please ask us for your individual solution!

Our instruments are designed to continuously satisfy the needs of our customers, requiring little maintenance and being easy to use.

IONICON Analytik welcomes special wishes from customers and has long-standing experience in developing customized systems. Our in-house software department knows what your needs are in the lab or in the field and continuously improves our software's performance and the straight-forward experience you have with our instruments.

APPLICATION EXAMPLES



- Environmental research
 - Atmospheric chemistry
 - Emissions monitoring
 - Biological research
- Nutrition, Food & Flavor science
 - Coffee headspace measurement
 - Aroma and fragrance analysis
 - Head- and nose-space gas analysis
 - Determination of food freshness
- Ambient air control
 - Indoor air VOC detection
 - SBS monitoring
 - Cleanroom environment monitoring
 - Passenger cabin air VOC detection
- Industrial applications
 - Waste incineration process control
 - Engine exhaust monitoring
 - Material and packaging research
 - Online VOC monitoring in factories