

Analytical - Ion Mobility Spectrometer



**Fast and Sensitive
Gas Monitoring System**

A-IMS – Solution for Fast and Sensitive Detection in Process Analytics

Analytical Ion-Mobility-Spectrometer offers an excellent solution for quantification of well-known compounds. Results are typically available within seconds, so the device can be well applied for process monitoring and control e.g. in pharma, chemical industry and for indoor air or clean room detection. Through different communication ports usb, ethernet, modem or other plc (programmable logic controller) the integration of A-IMS into different processes is easily possible.

- Stand-alone device, well applicable for process control
- Closed gas-circuit system with integrated electrical six-port-valve and sample loop
- Direct sampling using integrated pump, flow rate up to 2,000 mL/min
- Software controlled switching between positive and negative ionization mode
- Temperature control for ion mobility spectrometer (default 45°C)
- Manual or fully-automatic operation mode including data acquisition, -analysis, visualization and data transfer to external devices
- Easy on-site implementation of multiple calibrations for different substances
- Storage of data in internal memory (compact flash card)
- Simultaneous calibration of different substances

Technical Specification	
Working principle	Ion Mobility Spectrometry
Ionisation method	Radioactive β - radiation source
Source	Tritium (^3H)
Activity	300 MBq, below the exemption limit of 1 GBq, EURATOM guideline
Drift voltage polarity	Positive or negative, switchable
Sampling	Electrical 6-Port-Valve
Detection limits	Typically in the low ppb _v -range
Dynamic range	Typically 1-3 order of magnitude
Display	6,4" TFT, VGA-Display
Input unit	Rotary pulse encoder, ESC- push-button
Processor	400 MHz X-scale
Data acquisition	Ultra-fast ADIO-board
Data processing	X-board / Baseboard
Data storage	Min. 1 GB Compact-Flash
Communications	RS232, USB, Ethernet
Electrical connectors	2 x D-Sub 9-pole (for modem, console) D-Sub 15-pole (for external devices) RJ45 (for digital modem or SSH) 2 x USB-A
Power supply	100 – 240 V AC, 50-60Hz (external supply) 24 V DC / 5A, XLR-connector (internal)
Power consumption	< 120 Watt
Dimensions	449 x 375 x 177 mm (WxDxH)
Weight	15,5 kg
Housing	19" compatible, IP 20 enclosure, EMC certificated
Cooling	Axial ventilator, temperature controlled, max. 5,5 m ³ /h
Gas connectors	3 mm stainless steel Swagelok connectors for gas in- and outlet

