ION MOBILITY SPECTROMETRY

Next Generation IMS (iMS-NG)

Handheld Detector for Chemical Threat Detection Identification and Monitoring (DIM)

Innovation with Integrity

Chemical and radiological threats require reliable situational awareness on site to support safe and informed decisions. The iMS-NG addresses this need by combining rapid chemical detection with optional gamma radiation monitoring in a single robust, handheld system designed for field conditions and evolving threat scenarios.

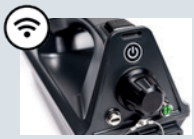
1	**Bruker´s next generation of IMS detector equipped with a non-radioactive ionization source** Enables quick response, reduces equipment burden, and accelerates deployment in critical situations.	▪ Ergonomic design, bright display for day/night ops ▪ One-hand controllable, glove-friendly ▪ Lightweight (2 kg), low-noise (< 10 dB) ▪ Operable under extreme environmental conditions
2	**Modular design** Modular design enabling analysis of chemical gases, vapors, liquids and solids. Radiation module measures gamma dose rate and identifies radioisotopes.	▪ Extended dynamic range ▪ Desorption unit for low volatiles ▪ Gamma radiation detection with isotope identification
3	**Detection, identification and monitoring** Highest sensitivity combined with best resolution and lowest false alarm rate due to drift-tube IMS.	▪ LOD in the ppb to low ppm range ▪ Large selection of libraries available for: TIC/TIM, CWA, novel agents, fire gases, ITF list agents, industrial chemicals ▪ Lower false alarm rate due to improved algorithms
4	**Connectivity, power, vehicle integration** Advanced connectivity features and vehicle integration options.	▪ Wired and wireless connections ▪ Powered by rechargeable COTS batteries ▪ Connection unit (DC input 11-32 V), LAN, RS-232/422/485 ▪ Wall mount for vehicle integration

iMS-NG: Specifications at a Glance

Technical Data

Dimensions	400 x 125 x 175 mm
Weight	2.0 kg without battery, 2.4 kg with battery
Technology	Ion Mobility Spectrometry with a non-radioactive ionization source (**D**ielectric **B**arrier **D**ischarge **I**onization) MOS (Metal Oxide Semiconductor), CsI Scintillator
Detectable Agents	TICs, CWAs, Non-traditional agents (NTAs)
Operating Temperature	-30 to 50°C
Operating Humidity	Up to 95 percent RH non-condensing
Pressure Range	570 to 1200 mbar
Ingress Protection	IP67
Power Input	20 V, 65 W via USB 2.0 Type C
Batteries	Li-ion battery (rechargeable, 10.8 V, 6.8 Ah, 74 Wh), COTS AA batteries
Data Ports	USB-A, USB-C, Ethernet M12
Languages	English, German, additional languages upon request
Gamma Dose Rate Measurement Range	0.1 µSv/h to 100 µSv/h
Energy Range	25 keV to 3 MeV
Standard Isotopes Lib	Am-241, Ba-133, Co-57, Co-60, Cs-137, Eu-152, Ga-67, I-131, Ir-192, K-40, Na-22, Pu-239, Ra-226, Tc-99m, Th-232, Tl-201, U-235, U-238

Four modes of operation: **ST**an**D**ard mode, **SCR**eening mode, **S**elective **S**ubstance **S**earch, **L**ow **V**olatile **S**earch



Comms possible via GPS, Network, USB, WiFi, Bluetooth

Desorption unit for detection of low volatile substances

Power supply via USB-C, rechargeable Li-ion batteries or COTS AA batteries

Long lasting consumables - easy access to all of them through a single service hatch

A **multifunctional pneumatic electric interface** for different application tasks

Bruker Optics is continually improving its products and reserves the right to change specifications without notice.
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Bruker Optics is ISO 9001, ISO 13485, ISO 14001 and ISO 50001 certified.

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