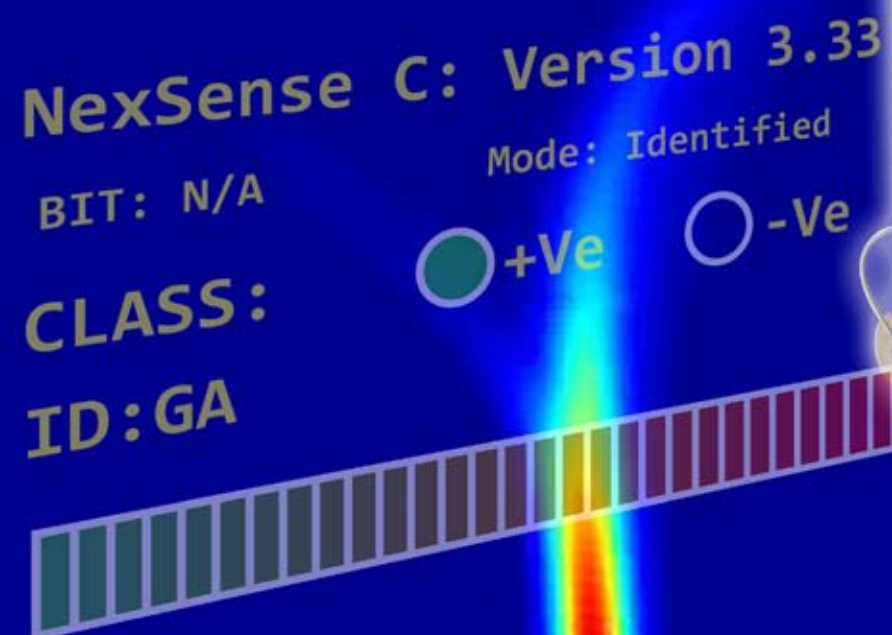




SELEX GALILEO

A Finmeccanica Company



NEXSENSE C - MP MAN PORTABLE UH-FAIMS CHEMICAL SENSOR SYSTEM

Man-portable Nexsense C is the first chemical sensor to use UH-FAIMS (Ultra High Field Asymmetric Ion Mobility Spectrometry) designed for the military and first responder market. This ground breaking technology combined with world class data processing delivers the sensitivity and discrimination required to dramatically improve monitoring, detection and identification performance over current systems.

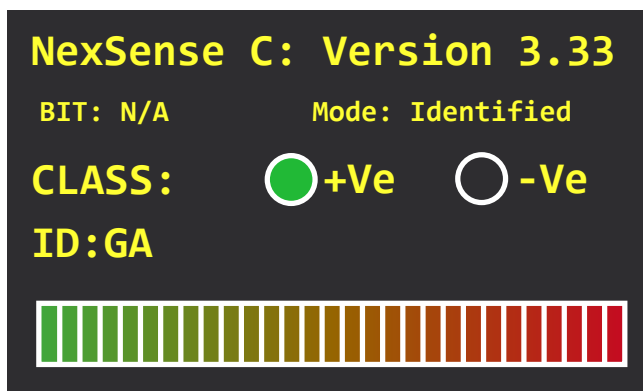
This highly portable sensor provides a fast and reliable response for a broad, and rapidly expandable, spectrum of chemical threat agents.

UH-FAIMS

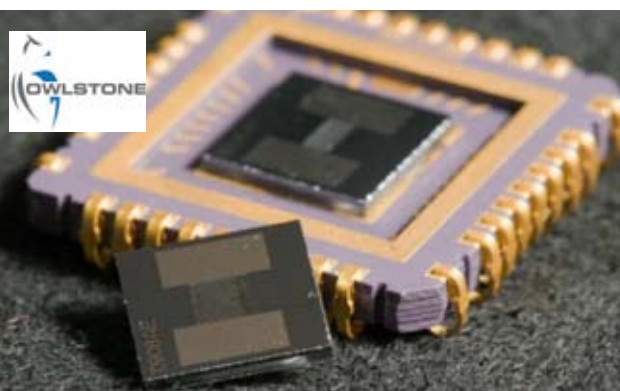
UH-FAIMS addresses a region of a chemicals' ion mobility response that is beyond the reach of conventional IMS systems. This enhanced data allows greater discrimination between similar chemicals, providing the Nexsense C system with the ability to clearly identify individual threat agents, and avoid confusion with common interferences.

KEY CAPABILITIES

- Fast
 - Continuous Monitoring with detection of threat in 3 s
 - Identification of detected threat in 10 s
- Highly sensitive - in the UH -FAIMS region the chemical behaviour is much more distinct resulting in a system that is more sensitive than conventional IMS systems
- Reliable - by identifying the substance the system minimises false alarms
- Broad-band threat spectrum - Chemical Warfare Agents (CWAs), Toxic Industrial Chemicals (TICs) and their precursors
- Readily expandable threat list - the user can easily add new threats to the database without any hardware changes
- Simultaneous - one operating mode for all threat types.



System display interface



NEXSENSE C utilises the Owlstone Nanotech detector; a miniaturised FAIMS sensor that is lighter, smaller and more power efficient than other available sensors

TECHNICAL SPECIFICATIONS

Weight

8.5kg (without battery)

Dimensions

302x254x218mm

Power Supply

External - 18v DC
 Battery - Rechargeable
 Mains - 100 - 240 V

Interface

Ethernet, VGA, USB
 802.11 /g 50 - 60 Hz

Environmental

Temperature 0-35 deg C (operating)
 -10 -50 dec C (storage)
 IP rating 53 (operating)
 54 (non operating)

Threat detection and Identification

User defined
 Current performance testing includes CWA's and TIC's

Detection and Identification Range

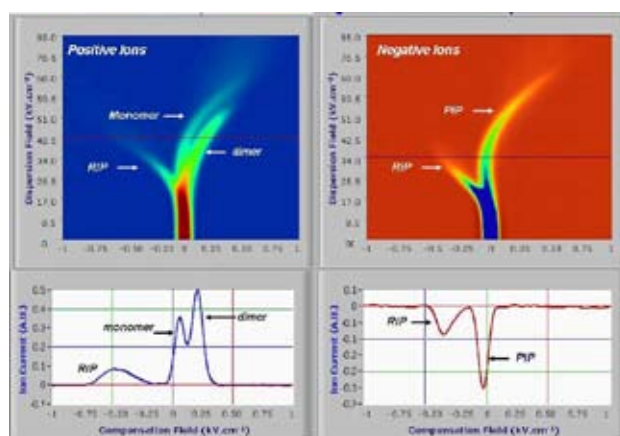
Low ppb up to several ppm
 (substance specific)

Ionisation source

Ni-63 with 555 MBq activity

Consumables

Scrubber/Sieve pack Field replaceable
 Easily refilled by the user
 Designed for >100 hours continuous operation
 No requirement to change following a +ve detection



FAIMS analysis

SELEX Galileo has developed advanced algorithms that improve the sensors discrimination capabilities through enhanced data processing and pattern recognition. This produces a rugged response to threat detection in chemically complex environments.



Alternative views of Nexsense C - MP man portable system