MS FOOD SAFETY

Technical Datasheet

INDUSTRIAL FOODSENSE™

Real-Time Detection and Diagnostic Sensors
for Food Screening and Inspection

FOODSENSE™ Making Sense of Food

FOODSENSE™ is a portable detector using HF-QCM nanotechnology sensors designed to detect and identify a wide range of food contaminants in less than8 seconds.

FOODSENSE™ provides food manufacturers, QA, QC personnel and consumer businesses with the latest sample analysis capabilities uniquely developed to address the global problems of food contamination with specific operational requirements such as farm outdoors and manufacturing floor temperatures.

These enhanced capabilities enable to address an expanded range of users required to inspect incoming raw materials, improve the process monitoring and control the food freshness and standardization. FOODSENSE™ enables to detect potential problems before the food is consumed while reducing the dependency and waiting time for external laboratories.

Feature Highlights

- HF-QCM nanotechnology sensors
- Green and safe
- Sample analysis in 8 seconds
- High-throughput sampling per hour
- Self-calibration
- Remote monitoring and support
- Bluetooth® connectivity
- Real-time Cloud synchronization & reporting
- Reduces dependency on external labs

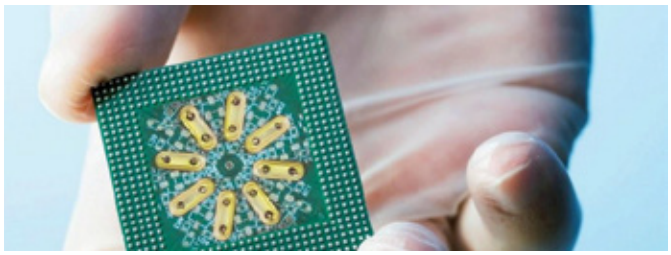
Applications

- Food freshness evaluation
- Food contaminants screening
- Inspection of incoming raw materials
- Final product control
- On-line quality assurance and control
- Quality control standardization
- Improve process monitoring
- Food shelf-life assessment
- Consumer behavior
- Sensory research

HF-QCM Nanotechnology Sensors

The patented High-Frequency Quartz Crystal Microbalance sensors detect and identify a wide range of substances with great accuracy and speed. The HF-QCM sensors are successfully integrated in the FOODSENSE™ with a unique design of a sensor array coated with selective polymers.

The detection and identification of target materials is based on the piezoelectric effect where changes in mass affect the resonating frequency of the HF-QCM sensors by the adsorption of foreign molecules on their selective coatings. The changes in frequency are accurately detected and measured.



Easy-to-Use Operator Interface

Sample analysis and results require minimal interpretation, so operators may concentrate on obtaining a good sample of their food. The FOODSENSE™ onboard processor automatically transmits the data to an Android or iOS application and includes all data logging, including time, date, and sample analysis for each alarm. A complete history of saved data and alarm files can be viewed, analyzed, downloaded and printed at any time.

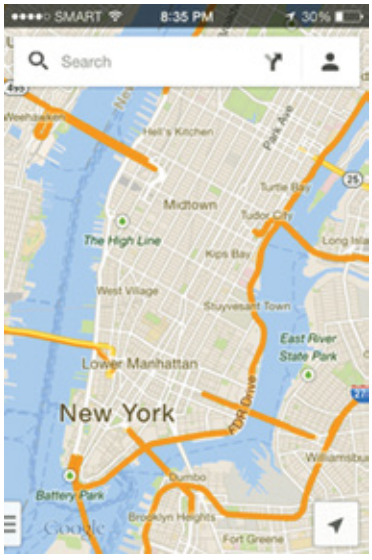
Cloud Synchronization

- Real-time results transmission to a secure Cloud
- Cloud storage
- Cloud back-up
- Real-time data sharing
- Compatibility with Android 4.3 or higher and iOS 7 and higher

Users

- Food manufacturing companies
- Supermarkets and grocery stores
- Government inspectors
- QA and QC personnel
- Food catering companies
- External laboratories
- Hotels & hospitals
- R&D scientists

Select the food category of the product inspected



Get real-time alerts and their locations worldwide

Track and record your alerts with Cloud synchronization

Technical Specifications

Technology	High-Frequency Quartz Crystal Microbalance Sensors (HF-QCM) No gas carrier. No radioactive source
Sample Acquisition	Sample acquisition via the detector nozzle supplied with different types of sampling tips
Contaminants Detected	Wide range of chemical contaminants and spoiled food Specific contaminants can be customized upon customer specifications
Sensitivity	Low parts per million (ppm) range
False Alarm	Less than 3%
Warm-Up Time	Less than 2 minutes
Analysis Time	Less than 8 seconds
Operating System	Via Android 4.3 and IOS7
Data Transfer	Bluetooth® Micro USB Port
Alarm Type	Audio and visual, with substance identification
Multi-Language Support	English, French, Spanish, Italian, Portuguese, German, Polish, Russian, Chinese, Korean, Japanese, Arabic and others
Data Storage	Unlimited data logging, including time, date, sample analysis, and system status
Battery	Rechargeable Lithium-Polymer 3.7V 240mAh battery with up to 5 hours of field operations
Weight	850 gr. including battery
Dimensions	(L x W x H): 4.10” x 1.21” x 1.07” (10.40 x 3.08 x 2.71 cm)
Operating Temperature Range	14°F to 131°F (-10°C to + 55°C), less than 95% relative humidity, non-condensing
Carrying Case	Supplied with a carrying case enabling the protection of the detector and associated sampling probes
Certification	CE Mark and EMC Certification ISO 9001:2015 Manufacturing Standards

ADVANCED SENSOR TECHNOLOGIES

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