

PROENGIN SAS - AP4C-FB



GENERAL DESCRIPTION:

AP4C-FB is dedicated to protection of strategic infrastructures like Government premises, courts and parliaments. AP4C-FB combines both chemical detection (AP4C-F) and biological alarm (MAB). AP4C-FB achieves real time biological and chemical detection and monitoring. AP4C-FB can be integrated in the site security network. AP4C-FB is also adapted to harsh environmental conditions. Like AP4C, AP4C-FB is able to detect an extended range of chemicals. All dangerous compounds containing Sulphur, Phosphorus, Arsenic, and/or the HNO chemical liaison can be



detected in a simultaneous way. Like MAB, AP4C-FB is able to detect a change in the biological content of the air, with thresholds adapted to the situation to manage. Upon alarm, AP4C-FB is also able to:

- Give an immediate visual and sound alarm signal
- Send the information to central control system automatically trigger shutting down of the ventilation system of the building/infrastructure

TECHNICAL DESCRIPTION:

AP4C-FB combines chemical and biological detection, the two of them being based upon Flame Photometry Detection (FPD), detection of the physical signature of the chemical atoms and bonds within the products and compounds. More precisely, AP4C- burns all gas and particles providing energy to the electrons; that energy is emitted as photons. AP4C-FB immediately analyses the photons, looking for:

- Phosphorus, Sulfur, Arsenic or HNO signatures (chemical detection)
- Sodium, Potassium, Calcium and more signatures (biological detection)

This technology (FPD) is sensitive (state of the art thresholds), reliable (no false positive, no false negative alarm), not sensitive to humidity, temperature or mixture of compounds. AP4C-FB requires light service and maintenance. AP4C-FB offers the most reliable information on the field, regarding both chemical detection and biological monitoring.

Tier Selection

Final tier assignment is based on overall product score.

- Top Tier
- Second Tier
- Third Tier
- ◐ Fourth Tier
- Bottom Tier

RANKINGS

	Biological	Chemical	Radiological
FIELD USE System			N/A
MOBILE Laboratory			N/A
DIAGNOSTIC Laboratory			N/A
ANALYTICAL Laboratory			N/A

CONTACT INFORMATION

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COST

- €80,000/system
- N/A/analysis

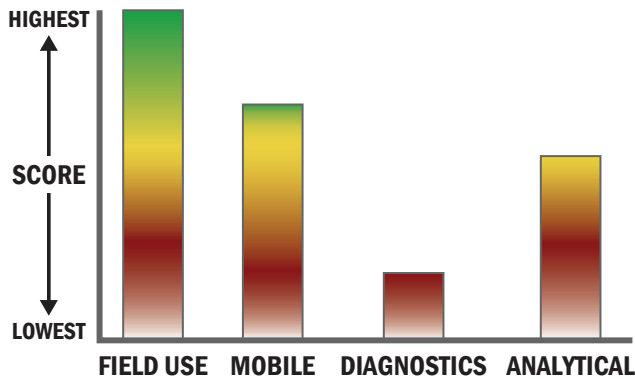
Survey Source

Vendor Supplied Information



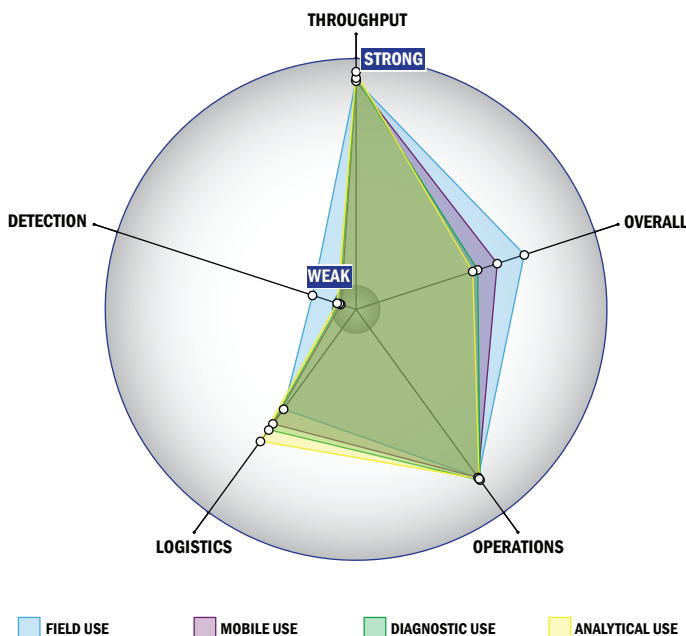
Scoring Analysis

System scores are compared across the four scenarios and ranked from highest to lowest.



Impact Chart

The Impact Chart is a spider graph representing specific categories and designed to give the reader a visual depiction of how a particular system is expected to operate across the four different scenarios. The score for each of the seven categories is presented as the percentage of the total possible score. Higher category scores extend the spokes of a graphic toward the outer edge of the chart. The area graphed for each of the four scenarios relates to how well the system performed in that scenario. Graphics for each of the four scenarios are super-imposed for ease of comparison.



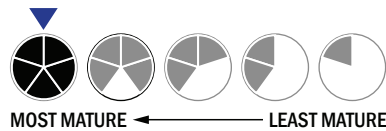
Evaluation Criteria

Throughput:

- Detection is instantaneous
- Continuous operation with no defined runs
- System is continuous and provides real time analysis with no defined tests/samples
- The system or device is currently fully automated
- Device or system is intended for multiple detection assays
- 0-1 solutions, buffer, eluents, and/or reagents
- 0 components
- 10-20 minutes is required for setup
- Automatic detection

Logistics:

- Very brief (minutes-hours) training and minimal technical skills
- Approximately the size of a carry-on luggage suitcase
- Between 5 and 25 kg
- Wired connections are available
- System or device has 220V electrical requirement



Operations:

- Can be used from 4 °C to 41 °C
- Performance is not influenced by relative humidity
- Greater than 10 years expected life
- Results can be viewed in real-time
- The system or device is currently fully autonomous
- The system software is closed and not available for modification
- The system hardware is closed and not available for modification

Detection:

- Possible the system could receive 510K clearance, no current efforts at this time
- Possible the system could receive FDA approval, no current efforts at this time
- This system does not test liquids
- Good specificity. System has a consistently low level of false alarms (2-5%)
- > 1x10⁻³ mg/m³