NIRIKHON

SECURITY & DEFENCE TECHNOLOGY

PRODUCT BROCHURE

DIGITAL ALCOHOL BREATHALYZER

High-Precision Digital Alcohol Breathalyzer

The SZEEK High-Precision Digital Alcohol Breathalyzer by NIRIKHON (Model EK925) delivers enforcement-grade fuel-cell accuracy at 90%+, with instant readings in under 5 seconds and 0.001% BAC resolution for precise field screening. One-button auto-sampling simplifies checkpoint operations, while onboard memory and USB/Bluetooth export ensure tamper-evident data logging. Backed by a 12-month warranty—built for mission-critical field command operations.



High-Precision Digital Alcohol Breathalyzer

Official Brochure

SOLUTION SNAPSHOT

Enforcement-Grade Fuel-Cell Sensor with ≥90% Accuracy	**High-Precision 0.001% BAC Resolution Measurement**	**Instant ≤5s Response Time with Rapid ≤20s Warm-Up**
Multi-Format Digital LCD/LED Display with Status Indicators	**One-Touch Automatic Breath Sampling & Over-Limit Alarm**	**12-Month Full Device Warranty**

OVERVIEW

Built for Real Operations

01

The SZEEK High-Precision Digital Alcohol Breathalyzer by NIRIKHON (Model EK925) delivers enforcement-grade fuel-cell accuracy at 90%+, with instant readings in under 5 seconds and 0.001% BAC resolution for precise field screening. One-button auto-sampling simplifies checkpoint operations, while onboard memory and USB/Bluetooth export ensure tamper-evident data logging. Backed by a 12-month warranty—built for mission-critical field command operations.

CAPABILITIES

Key Features & Product Modules

02

Enforcement-Grade Fuel-Cell Electrochemical Alcohol Sensing Module

This fuel-cell sensor core delivers ≥90% accuracy, providing the electrochemical foundation for reliable, court-admissible BAC tracking. Engineered for enforcement-grade reliability, it forms the primary detection layer that every subsequent reading in the device depends on.

Sampling Port System with Replaceable & Non-Contact Options

The sampling interface supports both replaceable, individually wrapped sanitary mouthpieces and an optional non-contact air-sampling mode. This dual-method design gives field operators the flexibility to maintain hygienic testing standards across high-volume checkpoint operations without compromising sample integrity.

High-Precision Processor Core & BAC Calculation Engine

The internal processor executes rapid BAC calculation with a response time of ≤5 seconds and a warm-up period of ≤20 seconds, converting sensor input into a precise reading at 0.001% BAC resolution. This processing core is what transforms raw fuel-cell detection into a forensic-level, actionable result.

Multi-Format Digital LCD/LED Status & Readout Display Panel

The digital display presents clear BAC readings across multiple recognized formats—%BAC, mg/L, and mg/100 ml—alongside real-time status indicators for Ready, Testing, Result, and Error phases. This panel keeps field operators fully informed at every stage of the testing sequence, reducing procedural error.

Audible & Visual Over-Limit Alarm System

The device triggers an immediate audible and visual alarm the moment a reading exceeds the configured legal limit, giving field operators instant, unambiguous notification. This alert system removes guesswork from the screening process during fast-paced checkpoint operations.

Rechargeable Type-C Battery & Power Management System

A rechargeable battery supports a minimum of 200 tests per full charge, managed through an auto power-off function that conserves energy between uses. This power architecture is built to sustain extended field deployment across a full operational shift without requiring mid-session recharging.

Impact-Resistant Field-Grade ABS Ergonomic Chassis

Molded from impact-resistant, industrial-grade ABS plastic, the housing is engineered as a portable, lightweight handheld device built to withstand active roadside and field use. This rugged casing protects the internal sensor and processing components from the physical demands of continuous field deployment.

Universal USB Type-C Charging & Data Interface

A universal Type-C interface handles both device charging and data connectivity, supporting USB and Bluetooth export of logged test results. This interface bridges the device to central monitoring systems, enabling seamless transfer of on-board test records for audit and reporting purposes.

OPERATIONAL VALUE

Software, Benefits & Outcomes

04

Real-Time BAC Measurement & Multi-Unit Display Control

Delivers live BAC readings across %BAC, mg/L, and mg/100ml formats directly from the connected device to the central console.

- View real-time test results as they're captured in the field
- Switch display units to match regional reporting standards
- Monitor active test status alongside the live reading
- Cross-reference readings against configured legal thresholds
- Standardize unit reporting across a full device fleet

One-Touch Automated Breath Sampling & Intake Sensor Calibration

Coordinates the device's single-button sampling sequence with sensor calibration status for consistent, tamper-resistant test capture.

- Initiate automatic breath sampling with minimal operator input
- Confirm sensor calibration status before each test cycle
- Reduce manual handling errors during checkpoint operations
- Maintain consistent sampling technique across all field units
- Flag devices requiring recalibration before deployment

Configurable Legal Threshold & Visual/Audible Over-Limit Alarm System

Manages the over-limit alarm configuration, ensuring every connected device triggers consistent alerts at the defined legal threshold.

- Set and update legal BAC thresholds across the device fleet
- Trigger instant audible and visual alerts on threshold breach
- Standardize alarm configuration for consistent field enforcement
- Review alarm-trigger history for each recorded test
- Adjust thresholds to match jurisdictional requirements

On-Board Offline Test Logging & Historical Memory Management

Manages the device's internal memory module, preserving test records captured during offline field operations.

- Store test results directly on-device during offline use
- Retrieve historical test records once reconnected
- Prevent data loss during extended field deployment
- Review stored test history by date and device
- Maintain a continuous testing record independent of connectivity

USB & Bluetooth Wireless Evidence Data Export & Central Integration

Transfers logged test data from the device to central monitoring systems via USB or Bluetooth for consolidated recordkeeping.

- Export test records via wired USB or wireless Bluetooth connection
- Integrate logged data with central monitoring software
- Consolidate records from multiple field devices into one system
- Maintain data integrity during transfer for evidentiary use
- Support both real-time and batch data synchronization

Automated & Manual Sensor Calibration Management Cycle

Oversees the device's calibration lifecycle, supporting both automatic and manual calibration procedures on a defined schedule.

- Schedule calibration cycles based on test count or time interval
- Switch between automated and manual calibration modes
- Track calibration history per individual device
- Flag devices approaching their calibration interval
- Maintain measurement accuracy across the operational fleet

Forensic-Grade Test Report Generation & Timestamped Archiving

Compiles captured test data into structured, timestamped records suitable for institutional review and reporting.

- Generate structured test reports from logged data
- Preserve timestamp accuracy for each recorded test
- Archive records for audit and compliance review
- Retrieve historical reports by device, date, or operator session
- Support consistent documentation across all field operations

SPECIFICATION

Technical Details

05

ENFORCEMENT-GRADE FUEL-CELL SENSOR WITH ≥90% ACCURACY
✓ Included

HIGH-PRECISION 0.001% BAC RESOLUTION MEASUREMENT
✓ Included

INSTANT ≤5S RESPONSE TIME WITH RAPID ≤20S WARM-UP
✓ Included

MULTI-FORMAT DIGITAL LCD/LED DISPLAY WITH STATUS INDICATORS
✓ Included

ONE-TOUCH AUTOMATIC BREATH SAMPLING & OVER-LIMIT ALARM
✓ Included

12-MONTH FULL DEVICE WARRANTY
✓ Included

HIGH-CAPACITY TYPE-C RECHARGEABLE BATTERY — 200+ TESTS
✓ Included

ON-BOARD TEST MEMORY FOR OFFLINE DATA LOGGING
✓ Included

MULTI-METHOD HYGIENIC SAMPLING
✓ Included

IMPACT-RESISTANT ABS FIELD-GRADE CHASSIS
✓ Included

USB & BLUETOOTH WIRELESS DATA EXPORT
✓ Included

AUTO POWER-OFF ENERGY CONSERVATION
✓ Included

FLEXIBLE MANUAL & AUTOMATED CALIBRATION SUPPORT
✓ Included

WIDE 0°C TO 50°C OPERATING TEMPERATURE RANGE
✓ Included

QUESTIONS

Frequently Asked Questions

07

Q. How does the fuel-cell sensor maintain calibration longevity and reading repeatability across sustained checkpoint use?

A. The device is built on an enforcement-grade fuel-cell sensor rated at ≥90% accuracy, supported by both manual and automatic calibration cycles configurable at defined test-count or time intervals. This structured calibration lifecycle ensures consistent, repeatable readings across extended operational deployment rather than degrading between individual tests.

Q. Can measurement precision be maintained across extreme field temperature conditions?

A. Yes. The device is rated for operation across a 0°C to 50°C temperature range, with secure storage limits extending from -10°C to 60°C. This environmental tolerance ensures reliable 0.001% BAC resolution readings whether deployed in cold-weather checkpoints or extended daytime field operations.

Q. How are offline test records secured and synchronized to prevent data tampering?

A. Test results are stored directly to on-board memory during offline operation, then synchronized to central systems via USB or Bluetooth once connectivity is available. This offline-first architecture ensures no test data is lost during extended field deployment, while structured data export supports tamper-evident recordkeeping for institutional review.

Q. What hygienic and sampling standards does the device support for high-volume checkpoint operations?

A. The device supports two compliant sampling methods: individually wrapped, replaceable mouthpieces (minimum 10 units supplied per device) and an optional non-contact air-sampling mode. This dual-method design allows field operators to maintain hygienic testing standards without slowing checkpoint throughput.

Ready to deploy High-Precision Digital Alcohol Breathalyzer?

Talk to Nirikhon for product consultation, installation planning, integration support, and enterprise deployment.

Hotline: 09647 120 120 | Website: www.nirikhon.com