ChemPro®100i
Handheld Chemical Detector

- Industry leading CWA and TIC detection
- Improved selectivity and sensitivity
- Unique trend display

Environics

For your SAFETY

ChemPro100i

Handheld Chemical Detector

The ChemPro100i is a handheld detector for field detection and classification of Chemical Warfare Agents (CWAs) and selected Toxic Industrial Chemicals (TICs). It provides industry-leading sensitivity and false alarm rejection in the most user friendly and low-maintenance package in its class.

Instead of conventional chemical warfare the defence and security organizations are facing new threat scenarios. Chemical accidents, terrorism or criminal activities are the actual challenges soldiers and first responders have to prepare for on a daily basis. Today's operating environment requires new versatile response tactics incorporating innovative detection equipment.

KEY FEATURES

- Widest range of detectable chemicals
- Simple maintenance
- Easy to operate
- Versatility (CWA/TIC)
- Minimal false alarm rate
- Radiological and Biological detection with add-on modules

APPLICATIONS

- Locating leaks and faulty containers
- Monitoring of industrial sites
- Chemical safety of harbors and railways
- Customs and border control
- Monitoring of mass events and high security meetings
- Law enforcement agencies
- Battlefield detection and monitoring
- CBRN Reconnaissance and surveillance

Multisensor Detection

The ChemPro100i uses an array of detection technologies to detect, classify and measure chemicals enabling simultaneous detection of the widest range of chemicals. The ChemPro100i is a truly orthogonal detector, it's heart remaining the Environics' unique open-loop Ion Mobility Spectrometry (IMS) sensor. The performance is improved with additional sensors that provide a wider range of detectable TICs and improve false alarm rejection.

Lowest Life–Cycle Costs & Logistics

The ChemPro100i, unlike traditional closed-loop IMS, doesn't use consumable sieve packs or dopants. This substantially reduces the cost of ownership as well as the logistics burden when compared to other chemical detectors. With the ChemPro100i you won't be left in the middle of an incident with a CWA/TIC detector that doesn't work.

Easier to Use than a Mobile Phone

The ChemPro100i features an intuitive, graphical user interface with large menu buttons which are easy to use even when wearing protective equipment with heavy gloves. Interchangeable Li-Ion batteries can be quickly swapped out with a 6-AA battery pack without the use of any tools.

Add–On Modules

The ChemPro100i capabilities can be easily expanded to a full CBRN detection system by utilizing unique cost effective external add-on modules.

The ChemPro100 Radiation Detection Module enables the ChemPro100i to detect traces of gamma and X-ray radiation. The current dose rate, the accumulated dose reading and alarms are indicated on the display of ChemPro100i.

The ChemPro Reader Module adds new functionality in the form of handheld biological detection. It is intended for reading Envi Assay System lateral flow immunoassay tests. The Reader Module stores the test data for evaluation after the mission.

The ChemPro100 GPS Module displays coordinate information on the ChemPro100i display screen, and includes the coordinates to the alarm memo when chemicals are detected.

The ChemPro100 Earphone Module is designed for covert operations where silence is vital. When connected to ChemPro100i, all audible information is heard through the Earphone.

All add-on modules are plug-and-play compatible with the ChemPro100i and operate using power from the ChemPro100i battery.

ChemPro100i and Accessories

1. ChemPro100i Chemical Detector
2. Test Tube
3. Filter Set (incl. 3 filters)
4. Field Monitoring Cap
5. Li-ion Battery
6. Alkaline Battery Pack
7. Mains power Supply
8. Carrying Pouch
9. Transit Case
10. User Manual
11. Quick Reference Guide
12. Battery Charger
13. ChemPro100 GPS Module
14. ChemPro100 Earphone
15. ChemPro100 Radiation Detector Module
16. ChemPro Reader Module
17. Environics USB Cable (optional)
18. Power/Data Adapter (optional)

ChemPro100i SAK (Standard accessories kit) includes accessories 1-4, 5 or 6 and 7-11.
Accessories 1-16 are included in ChemPro100i CBRN kit

Technical Data

Size	Approx. 230 x 101 x 57 mm (9"L x 4"W x 2"H)
Weight	Approx. 880 g (31 oz.) (w/Li-Ion battery)
Sensors	Orthogonal detection using: • Open-loop (aspirated) IMS cell • Multiple semiconductor sensors • Temperature, humidity, pressure and mass flow sensors
Detection Libraries	Chemical Warfare Agent/CWA (std) Optional libraries available
Battery	Easily interchangeable Li-Ion rechargeable and alkaline (6xAA) packs
Operating Hours	Approx. 8 hours continuous use on rechargeable Li-Ion Up to 12 hours continuous use on AA-batteries
Battery Recharge Time	Approx. 5 hours using the standard power supplies Unit will run and charge simultaneously
Power	110 – 250 VAC, 50 – 60 Hz ChemPro100 Mains Power Supply (standard) 9.5 – 32 VDC ChemPro100 Vehicle Power Supply (optional)
User interface	Graphical LCD display with white backlight and 3 operation keys
Sampling	1,3 LPM internal pump with continuous airflow
Calibration	No calibration is required, but a simple confidence check is recommended before use
Alarm Modes	Audible (adjustable up to 85dB) and visual alarms
Temperature (Operating)	-30 °C to 55 °C (-22 °F -131 °F) up to 80 °C (175 °F) temporarily
Temperature (Storage)	-40°C to 71 °C (-40 °F -160 °F)
Humidity	0-95% non-condensing

Dust & Water Resistance	IP67: Dust tight (resists blowing sand MILSTD-810F) and protected against water immersion when inlet is closed
Shock & Vibration Resistance	High impact composite case passes vibration & drop tests (MIL-STD-810E)
EMI/RFI Interference	Highly resistant to electromagnetic & radio interference and doesn't generate disturbing electromagnetic interference
Other Features	RS-232 / USB communication port User adjustable data logging. Optional User Interface Program needed for downloading the data to a computer.
Warranty	1-year standard warranty 2, 3, 4 and 5 year warranties available

Optional Accessories

Radiation Detector Module

Size	Approx. 103 x 74 x 43 mm
Weight	Approx. 150g
Detected Radiation	Gamma and X-ray radiation
Dose Rate	0.04 µSv/h to 100 mSv/h
Energy Range	From 50 keV to 1.3 MeV
Response Time	Fast mode 2,5 seconds Normal mode 3 min. at ambient radiation levels

ChemPro Reader Module

Size	Approx. 120 x 55 x 60 mm
Weight	Approx. 245g
Memory	100 test results
Reading modes	Read test results: 10 sec. response time Run test: 15-20 min. response time

Subscribe to our Newsletter