

ChemProDM

Chemical Detector for
Mobile Solutions



- Industry leading sensitivity in CWA and TIC detection
- Compatible with EnviScreen monitoring software
- Simple maintenance – low lifecycle costs



Environics

WE SENSE & DETECT FOR A SAFER WORLD

ChemProDM

Chemical Detector for Mobile Solutions



The ChemProDM provides industry-leading sensitivity in CWA and TIC detection in rugged housing.

The ChemProDM is a reliable and fast chemical detector module for fixed applications where a local user interface and built-in rechargeable battery are not needed. ChemProDM uses the Open Loop IMS technology to detect & identify Chemical Warfare Agents (CWAs) and Toxic Industrial Chemicals (TICs). Depending on the circumstances the suitable chemical library can be chosen for each mission.

KEY FEATURES

- Industry leading sensitivity in CWA and TIC detection
- Radiation detection with add-on-module
- Low lifecycle costs
- Minimal maintenance
- Flexibility and upgradeability
- Designed to be used in conjunction with remote alarm unit or external computer system

APPLICATIONS

- Vehicle Solutions
- Vessel Solutions
- CBRN System Solutions

Multisensor Detection

The ChemProDM uses an array of detection technologies to detect, classify and measure chemicals enabling simultaneous detection of the widest range of chemicals. The ChemProDM is a truly orthogonal detector, its 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 Cost

One of the many advantages of open-loop IMS technology is that unlike conventional technology where systems require regular replacement of the molecular sieve or other filters, the ChemProDM has only one regular consumable – a simple dust filter.

Flexibility and Upgradeability

The ChemProDM's flexible technology allows the inclusion of the widest variety of chemical compounds in the gas libraries. Protection can be provided in most situations with minimal amount of false alarms. New libraries can be downloaded to the device via serial port by using a simple PC-based User Interface Program.

Connectivity and Add-On Modules

The ChemProDM detector module has been designed to be used either in conjunction with the ChemPro Remote Alarm Unit (RAU) or an external computer system. The ChemProDM detector can be connected to an external computer system by using the RS-232 / 485 communication ports provided in the detector. In addition to the alarm information indications, the small and light-weight remote alarm unit can also be used for operating the basic user interface. The versatile DC power input enables the use of the ChemProDM with a wide variety of DC power supplies and rechargeable batteries.

With an optional ChemPro Radiation Detection Module (RDM), the capabilities of standard ChemProDM can be enhanced to form a full CRN detection system. The ChemPro RDM enables the ChemProDM 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 remote alarm unit.



Technical Data

ChemProDM

Size	Approx. 175 x 110 x 63 mm (7"L x 4"W x 2"D) without external filter
Weight	Approx. 1,2 kg (42 oz.)
Power source	9 - 36 VDC Vehicle Power
Remote power	110 - 250 VAC with optional Mains Power Supply
Temperature (Operating)	-30 to 55°C (-22 to 131°F)
Temperature (Storage)	-40 to 71°C (-40 to 160°F)
Humidity	0-95% non-condensing
Dust & Water Resistance	<ul style="list-style-type: none"> MIL-STD-461E and 810E compliant * Waterproof
Detection Libraries	Chemical Warfare Agent/CWA (std) Optional libraries available
Communication	Serial communication interface with two RS-232/RS-485 ports
Alarms	Programmable storage of alarms

Optional Add-On Modules

ChemPro RAU (Remote Alarm Unit)

Size (H x W x D)	Approx. 122 x 110 x 78 mm (5"L x 4"W x 3"H)
Weight	Approx. 1kg (35 oz.) with wall mounting bracket
Buzzer	Piezo functioned
Lights	LED status light
Display	Graphical LCD display with white backlight
Power	<ul style="list-style-type: none"> Internal Li-Ion Rechargeable Battery 9 - 36 VDC Vehicle Power 110-250 VAC with optional Mains Power Supply
Communication	RS232/RS485

ChemProDM RDM (Radiation Detection Module)

Size (H x W x D)	Approx. 121 x 110 x 63 (5"L x 4"W x 2"H)
Weight	Approx. 1kg (35 oz.) with wall mounting bracket
Detected Radiation	Gamma and X-ray radiation
Detection Technique	Geiger-Müller tube
Dose Rate	0.04 µSv/h to 100 mSv/h (4 µrem to 10 rem)
Energy Range	From 50 keV to 1.3 MeV
Response Time	Fast mode 2,5 seconds Normal mode 3 min. at ambient radiation levels
Power Source	Uses the power of ChemProDM

* The ChemProDM is based on ChemProPD, which has been tested against these standards by independent and Environics' test laboratories during the product development process.



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