PN5000
For Explosives and Narcotics Detection

Introducing the PN5000 Detection System from PREMNET manufacturer of some of the most advanced trace detection systems in the world.

The detection equipment used to guard against terrorist threats is an important key to ensuring public safety. Equipment must deliver speed, accuracy and reliability in critical detection scenarios and offer ease-of-use, low maintenance and reasonable cost-of-ownership.

The PN5000 Detection System delivers all this and more.

Based on PREMNET patented GC/IMS™ (gas chromatography/ion mobility spectrometry) dual technology process, and years of detection expertise, the PN5000 system delivers:

- z **Selectivity:** PN5000'S GC/IMS dual technology platform detects and identifies traces of specific explosives/ narcotics within a multi-compound sample more accurately than single technology systems. A robust Chemiluminescence option further enhances detection capability.

- z **Sensitivity:** PN5000's superior design and intelligent analytical software yield exceptional trace detection performance.

- z **False alarm levels**: GC/IMS dual technology ensures the lowest false alarm levels.

- z **ICAO Taggants** : PN5000 detects EGDN and DMNB.

- z **Narcotics**: PN5000 detects Cocaine, Opiates, Cannabis & Amphetamine Type Stimulants

- z **Operating PN5000** PN5000 is easy to operate. Use the sampling wand to sample the target surface for traces of explosives. Pn5000 processes and analyzes the samples immediately and displays the results on its touch screen, making detection a simple process that takes just seconds.

- z **Integration:** The PN5000'S sophisticated operating system has built-in networking and communication capability. The device can easily interface with other screening systems to create a comprehensive security solution.

- z **Ease of use**: PN5000'S simple one-step operating process makes it easy to use with minimal training – perfect for high turnover areas.

- z **High throughput**: PN5000 offers continuous action and complete analysis within seconds – ideal for high volume environments such as airports and border crossings.

- z **Low maintenance**: PN5000 is completely self-contained, self-cleaning, self-calibrating and requires no external gas supply.

- z **Cost of operation** : PN5000 is cost effective, has low cost of daily operations, low maintenance and low cost of consumables.

- z **Convenient footprint** : Fits into small area checkpoints

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The PN5000 is ideal for:

Airports	Nuclear Facilities	Banks
Border crossings	Embassies	Prisons
Federal buildings	Courts of law	Underground parking areas
Military installations	Postal stations	Police
Seaports and container ships	Corporate headquarters	

FEATURES & BENEFITS OF THE PN5000

DUAL/TRIPLE TECHNOLOGY	The combination of GC and IMS significantly improves performance (high chemical accuracy, high detection rate and low false alarm rate) compared to basic IMS systems. Chemiluminescence further enhances the platform.
LICENSING NOT REQUIRED	Negligible radiation levels.
HIGH DETECTION RATE WITH LOW FALSE ALARMS	Increase user confidence that alarms are real and actionable.
SIMPLE SAMPLING & OPERATION	Easy to use by non-technical operators, which minimizes training and increases throughput.
LOW OPERATION COST	Few consumables decreases operating costs Low maintenance requirements and easy access to components to minimize downtime.

* SPECIFICATIONS

DETECTION CAPABILITY	**Explosives:** PETN, RDX, TNT, EGDN and NG, TATP, Dynamite, Semtex C4, **ICAO Taggants:** EGDN, DMNB (Option) **Narcotics:** Cocaine, Opiates (heroin & morphine), Cannabis (marijuana & hashish), Amphetamine-type stimulants (amphetamine, ecstasy & methamphetamine)
TECHNOLOGY	Gas chromatography / ion mobility spectrometry (Chemiluminescence Option)
SENSITIVITY	Nanograms to picograms for particulates Low PPB to PPT for vapours
ANALYSIS TIME	Is variable: 6 – 20 seconds
FEATURES	Auto or manual sampling Analytical unit On-board computer, printer and touch screen display
MODES OF OPERATION	Continuous Single cycle
DETECTION INDICATORS	Touch screen displays both ala rm and compound identification information Red flashing light on unit and audible alarm Automatic "Print on Alarm" option
SAMPLING ACCESSORIES	Sampling wand Vapour sampling unit
OPTIONS	Un-interruptable power supply (UPS) battery/backup Nitrogen generator Chemiluminescence detector (taggants detector) Auto-preconcentrator
DATA STORAGE & COMMUNICATIONS	Network connection, hard drive, diskette, printer, RS232
POWER CONSUMPTION	< 500 W
VOLTAGE	90 to 265 VAC 50/60 Hz
WARM UP TIME	20 minutes maximum from a cold start
WEIGHT	Unit weight < 25 kg.

* Due to continuing product improvement, these specifications are subject to change without notice.

PREMNET develops and manufactures some of the most advanced chemical trace detection products and systems used throughout the world in law enforcement, corrections, aviation and military applications.