

Photoionization Detector (PID)

Ion Science PhoCheck+

At the heart of the PhoCheck is a highly sensitive patent pending photoionization detector (PID) with a dynamic detection range capable of 1 ppb up to 10,000 ppm, making it the only sensor on the market able to detect Volatile Organic Compounds (VOCs) at their very low ppb toxic thresholds and lower explosive limits.

FEATURES

- **Fully upgradable** throughout the entire PhoCheck+ and FirstCheck+ ranges giving you ultimate flexibility in gas detection.
- **1 ppb – 10,000 ppm** for ultimate detection capability.
- Rapid response and recovery for faster detection.
- A choice of two viewing modes – large numbers or real-time graph.
- Unique “fence electrode” technology for humidity compensation.
- View stored readings graphically on-screen for an overview of results.
- Intrinsically safe for use in flammable areas.
- Data upload and download to a PC via IRDA for analysis with easy to use software.
- Health and Safety mode for STEL and TWA monitoring.

MODEL SELECTION

PhoCheck+ 1000Ex

An upgradable PID to grow with your needs

The PhoCheck+ 1000Ex is the first in the new line of fully upgradable PIDs. The 1000+ is ATEX approved as intrinsically safe and has a detection range of 0.1-4,000 ppm. With user-set single point alarms and gas table of over 250 gases, including their unique response factors, the 1000Ex is equipped to detect a wide range of VOCs.

PhoCheck+ 2000Ex

A data logging PID with PC download for easy data analysis

The PhoCheck+ 2000Ex, in addition to the above features, benefits from data logging capability. This allows you to store a minimum of 37 hours worth of data logged readings taken every second (over 130,000 individual readings!) with a date and time stamp for download to a PC via the IRDA link for detailed analysis with Windows-style Ion PC software. An ideal instrument for indoor air quality and perimeter monitoring applications.

PhoCheck+ 3000Ex

A PID with Health and Safety mode for STEL and TWA monitoring

PhoCheck+ 3000Ex, in addition to the features of the 2000Ex, benefits from an extended detection range of 0.1 to 10,000 ppm and an additional operating mode for industrial health and safety monitoring with pre-programmed STEL and TWA values.

PhoCheck+ 5000Ex

The most advanced PID on the market

PhoCheck+ 5000Ex is Ion Science's most sophisticated PID, and is the only instrument available on the market with a dynamic detection range of 1 ppb up to 10,000 ppm. The 5000Ex is ideal for the first responder due to its sensitivity coupled with the advanced features of the 3000Ex, making this instrument a potential life saver in many environments. The PhoCheck+ 5000Ex benefits from being upgradable to the FirstCheck+ range to include additional sensors. Please see the FirstCheck brochure for further details.



CALL GEOTECH TODAY (800) 833-7958

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Photoionization Detector (PID)



Ion Science PhoCheck+

SPECIFICATIONS

Detector:	Ion Science Photoionization Cell** Fitted with unique "Fence Electrode" technology** • Greater measurement stability, accuracy and linearity • Improved resistance of relative humidity effects • T90 – 1 second rise and clear-down
Lamps:	10.6eV Krypton PID lamp supplied as standard Other lamps available, please see accessories for details
Intrinsically Safe Approvals:	Ex II 2 G Baseefa 03ATEX0742 EEx ia II T4 (-20°C ≤ Ta ≤ 60°C) IECEX BAS 04.0033 (world standard)
Accuracy:	±5% displayed reading ±one digit
Linearity:	±5%
Data Logging*:	Automatically records readings every second, including date and time stamp 8 Mb data memory Incorporates a secure storage algorithm to reduce stored data corruption
Calibration:	Via calibration kit accessory
Operation:	Dry Cell: Alkaline 4 x AA – 20 hours Rechargeable NiMH – 20 hours
Alarm:	Flashing LED and 90dBa (10cm) audible sounder Pre-programmed TWA and STEL* Pre-programmed 250 gas and gas cocktails*
Instrument Range*:	Maximum range: 1 ppb to 10,000 ppm Maximum range: 0.01 to 10,000 mg/m ³
Flow Rate:	220 ml/min. or 220 cc/min. with flow fail alarm
Temperature:	Operating: -20° to 60°C (-4° to 140°F) Humidity: 0-99% RH (non-condensing)
Dimensions:	Instrument without probe: 340mm L x 60mm W x 49mm H (13.5" x 2.3" x 1.9") Standard case: 420mm x 320mm x 97mm (16.5" x 12.5" x 3.8")
Weight:	Instrument: 0.58 kg. (1.3 lb.) Packed: 3.0 kg. (6.6 lb.)
EMC:	Tested to EN61000-6-3 and EN61000-6-1 2001 All specifications are against isobutylene calibration at 20°C, 90% RH and up to 3,000 ppm

* Model and gas dependent

** PCT Application WO 03/046535

STANDARD FEATURES & UPGRADE OPTIONS

	1000Ex	2000Ex	3000Ex	5000Ex
Standard Feature <input checked="" type="checkbox"/>				
Upgradable Option <input type="checkbox"/>				
Feature				
Intrinsically safe ATEX approval	■	■	■	■
Health and Safety mode for STEL and TWA monitoring	□	□	■	■
IRDA for wireless communications with a PC	■	■	■	■
Auto range ppm/ppb	□	□	□	■
Real-time graph display on screen	■	■	■	■
Data logging	□	■	■	■
Date and Time stamp	□	■	■	■
Ion PC software for instrument configuration and data handling	■	■	■	■
Easy to use icon based interface	■	■	■	■
Zone name creator	□	■	■	■
Audible alarm 90 dBA	■	■	■	■
Visual alarm (LED)	■	■	■	■
Gas table of 250+ gases and their individual response factors	■	■	■	■
Selectable mg/m ³ or ppm/ppb	■	■	■	■
Upgradable to FirstCheck+ range to include O ₂ , CO, H ₂ S and LEL	□	□	□	□

ACCESSORIES

- IS protective cover, Pk of 10
Ex II 1 G EEx ia IIC T4
Baseefa02ATEX0093X,
Baseefa03ATEX0742X
- Calibration kit
- PID lamp cleaning kit
- Carbon filter (Zero filter)
- 25mm (1") diameter 0.5 micron probe filters, Pk of 5
- Standard probes attachment, Pk of 5
- PID lamp 8.4eV Xenon
- PID lamp 10.2eV Deuterium
- PID lamp 10.6eV Krypton
- PID lamp 11.7eV Argon
- Leather instrument jacket
- Leather instrument jacket with magnetic attachment
- Instrument chest harness for hands-free operation
- 5m (16') flexible extension hose
- 10m (33') flexible extension hose, exhaust barb, Tedlar bag connector

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