



GENESIS INTERNATIONAL, INC.

Handheld Leak Detector For Ammonia & Oxygen

PAC III:

The Most in a Single Gas Monitor



The Most offered in a Single Gas Monitor.

It's the...

- Toughest - metal-plated ABS housing
 - Loudest - horn 95 dB @ 1 ft. distance
 - Brightest - alarm light enhances view ability.
 - Smartest - can utilize over 20 gas sensors
- ...Single Gas Instrument



Loudest
horn 95 dBA @ 1ft. distance



Brightest
alarm light enhances
viewability



Largest
backlight graphics display

Features:

The PacIII Monitor delivers the most! The loudest audible alarm, the largest display, the easiest-to-use electronics, and the smartest sensors. All of these features are found in this small and rugged gas monitor. The PacIII is the most versatile gas detection instrument because it can utilize any one of more than twenty intelligent sensors, and quickly switch between them in the field. The sensors provide fast and accurate responses to hazardous gas levels while the attention-getting alarms make sure you know that danger is present. The PacIII provides the most sensing and alarming capabilities of any single gas monitor in the industry today.

SPECIFICATIONS

ENCLOSURE RATING Ingress Protection, IP-66

DIMENSIONS 2.6"x4.3"x1.3"
(67x116x32 mm)

WEIGHT 7.0 oz (200g)

ENVIRONMENT
CONTINUOUS -4 - 122 °F (-20 - 50 °C)
INTERMITTENT -40 - 132°F (-40 - 55°C)

TYPICAL BATTERY LIFE
Alkaline 9V: 600 hours
Lithium: 1000 hours
NiMH: 200 hours

AUDIBLE ALARM Piezo-electric buzzer,
95dB @1 ft

VISUAL ALARM Two high intensity LED's

WARNING SIGNALS A1, A2, TWA, STEL,
and low battery (exposure alarms per ACGIH or TRGS 402)

APPROVALS UL Class I & II, Division 1, Groups A-G (T6)
CSA Class I, Division 1, Groups A-D (T6)
CENELEC; EEx ia IIC T4/T6 (BVS) EEx ia I
MSHA: Permissible Single Gas Monitor

SENSOR RANGE
AMMONIA (NH3) 0 - 200 PPM
OXYGEN (O2) 0 - 25% VOL

Rugged Housing. Many gas-monitoring applications are also environmentally challenged. It is not uncommon to work in environments that are hot, cold, wet, dirty, or affected by corrosive gases. These extreme working environments, such as an offshore oil rig or an underground mine, put equipment to the test. PacIII was designed to handle these tough conditions in stride, and it does! The metal plated ABS housing provides a light-weight package that is easy to wear, but can take a beating in the field.

Regardless of accidental drops, unintentional bumps, or the occasional submersion in water, the PacIII is still ready to measure gas and sound its alarms. O-rings seal the housing from water or dust. The horn and sensor compartments are sealed against the elements, too. The PacIII is ready for the most demanding applications.

RFI Shielding. The shiny silver package is not just for looks. The chrome-plated housing provides superior resistance to potential Radio Frequency Interference (RFI). This means that you can use walkie-talkies in close proximity to the unit without causing false alarms.

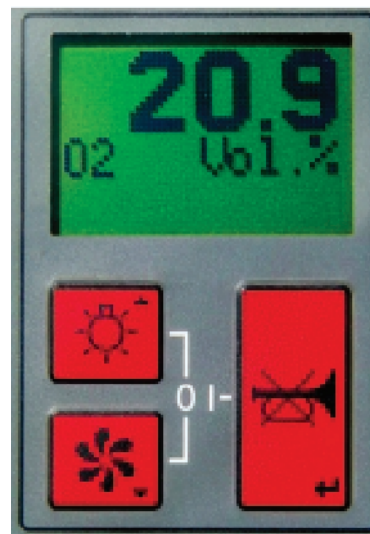
In addition to protection against RFI, the metallic coating serves to protect the instrument against heat radiation; a valuable feature in the primary metals industry where high heat exposure is common. The PacIII instrument is fully



protected against the environment so it can do its job, protecting those who wear it!

Easy Operation. The PacIII is one tough little instrument, but very easy to operate. The three buttons on the front of the unit turn it ON, OFF, and access routinely needed data

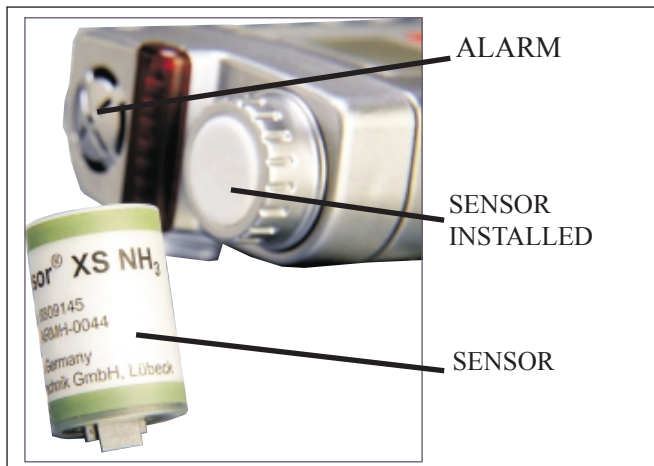
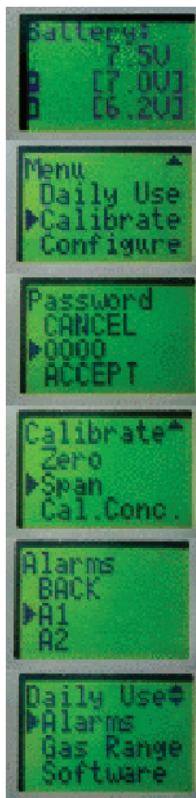
like battery levels. Operations like acknowledging alarms and activating the backlight are clearly marked. Implementing this instrument into your gas-monitoring program is a breeze.



Operational Display . The large display constantly communicates information to the user. The gas concentration is continuously shown in large numbers for quick

analysis of the situation. Below the concentration is the measuring units (ppm or %val.) and the gas being measured (e.g.. CO, Cl2, PH3, etc.). Alarm levels are also shown in the display. The bottom line of the display is reserved for special information characters. For example, a battery icon tells you that there is a low battery condition. All alarms and warnings are announced with an audible and visual signal and display message or character. The PacIII communicates the information you want and need to know.

Menu Driven Functions. Functions such as calibration and alarm set points are adjusted through plain language menu commands. These functions are protected by a pass code to prevent accidental or unauthorized adjustment. In this mode, the three-buttons act as UP, DOWN, and ENTER buttons to



navigate you through the menu. Operation of the PacIII is very intuitive.

SENSOR NH3 & O2

Gases qualified to measure:

Name	Display Symbol	Relative Response
Ammonia, NH3	NH3	1.0
Oxygen, O2	O2	1.0

Measuring Range:

- Maximum:** 0 to 200 ppm NH3
- Standard:** 0 to 200 ppm NH3
- Minimum:** 0 to 50 ppm NH3
- Maximum:** 0 to 25.0 % Vol. O2
- Standard:** 0 to 25.0 % Vol. O2
- Minimum:** 0 to 25.0 % Vol. O2

Response Time:

NH3 50% response to exposed concentration

in less than 20 seconds, or Alarm at TLV when exposed to 5x TLV in less than 10 seconds.

O2 90% response to exposed concentration in less than 25 seconds

Accuracy:

NH3 +/- 3% of Maximum Full Scale Value or better

O2 +/- 1% of Measured Value or better

Display Resolution:

NH3 1 ppm

O2 0.1 % by Volume

Environmental Conditions:

Temperature: -40 - 122 °F (-40 - 50°C), continuous operation

-40 - 140 °F (-40 - 60°C), short duration. The service life can be reduced by high temperature

Humidity: 10 - 95 % RH, continuous operation

5 to 99 % RH, short duration

Pressure: 20.7 to 38.4 inches Hg (700 to 1300 mbar)

Note: Rapid changes in environmental conditions may cause temporary fluctuations on the sensor readings

Cross-Sensitivities: NH3

Positive Effects: H2S, PH3, NO, HCN, SO2, and Methanol

Negative Effects: Cl2, NO2 and CO2

Note: Other gases may have an influence on the sensor

Cross-Sensitivities: O2

No known interferences by other gases in the TLV range. Larger Quantities of other gases may displace the oxygen in an ambient atmosphere causing the sensor readings to drop.

Calibration Frequency:

Required: 6 months, NH3, 12 months, O2

Recommended: 3 months, NH3, 6 months, O2

Calibration Gas NH3:

Required: Ammonia, 40-100% of selected range

Minimum: 10 ppm

Calibration Gas O2:

Recommended: Oxygen or zero air concentration 20.9% Vol. Fresh-Air Adjustment is acceptable for most applications

Compatible Filters: Internal Dust & Mist Filter: (provided with sensor)

Warranty Period: NH3: 12 Months, O2: 3 Years

PAC III Handheld Leak Detector for Ammonia

Part #88-0316

Standard Unit comes with One NH₃ Sensor and 9V Alkaline Battery.

PAC III Handheld Leak Detector for Oxygen

Part #88-0361

Standard Unit comes with One Oxygen Sensor and 9V Alkaline Battery.

PAC III Hygiene Handheld Leak Detector for Ammonia with Datalogging Part #88-0389

DataLogging Unit comes with NH₃ Sensor and 9V Alkaline Battery.

PAC III Hygiene Handheld Leak Detector for NH₃ with Datalogging & Computer Interface with Software Part #88-0390

DataLogging Unit with Computer Interface comes with NH₃ Sensor, 9V Alkaline Battery, Soft Leather Carrying Case, And Computer Interface Kit with Software

Accessories for PAC III	Part #
Ammonia Sensor, Replacement	87-0017
Oxygen Sensor, Replacement	87-0084
Computer Interface kit with Software	87-0094
Smart Pump	87-0095
Soft Leather Carrying Case	87-0096
Hard Leather Carrying Case	87-0097

Additional Optional Equipment also available. Call Genesis for more details.

Other Sensors also available:

GAS	MAX RANGE	RESOLUTION
Acetaldehyde	0-200 ppm	1 ppm
Acetylene	0-100 ppm	1 ppm
Acrylonitrile	0-100 ppm	0.1 ppm
Ammonia	0-300 ppm	1 ppm
Arsine	0-10.0 ppm	0.01 ppm
Bromine	0-20.0 ppm	0.01 ppm
Butadiene	0-100 ppm	1 ppm
Carbon Dioxide	0-5.00 % Vol.	0.1 % Vol.
Carbon Monoxide	0-2000 ppm	1 ppm
Carbon Monoxide	0-10,000 ppm	1 ppm
Chlorine	0-20.0 ppm	0.01 ppm
Chlorine Dioxide	0-20.0 ppm	0.01 ppm

GAS	MAX RANGE	RESOLUTION
Diborane	0-1.00 ppm	0.01 ppm
Diethylamine	0-100 ppm	1 ppm
Diethyl Ether	0-200 ppm	1 ppm
Dimethylamine	0-100 ppm	1 ppm
Dimethyl Disulfide	0-40 ppm	1 ppm
Dimethyl Sulfide	0-40 ppm	1 ppm
Ethanol	0-300 ppm	1 ppm
Ethyl Mercaptan	0-40 ppm	1 ppm
Ethylene	0-100 ppm	1 ppm
Ethylene Oxide	0-200 ppm	1 ppm
Formaldehyde	0-200 ppm	1 ppm
Flourine	0-20.0 ppm	0.01 ppm
Germane	0-20.0 ppm	0.01 ppm
Hydrogen	0-2000 ppm	1 ppm
Hydrogen Chloride	0-30.0 ppm	0.1 ppm
Hydrogen Cyanide	0-50.0 ppm	0.1 ppm
Hydrogen Fluoride	0-30.0 ppm	0.1 ppm
Hydrogen Peroxide	0-20.0 ppm	0.1 ppm
Hydrogen Selenide	0-1.00 ppm	0.01 ppm
Hydrogen Sulfide	0-100 ppm	1 ppm
Hydrogen Sulfide	0-1000 ppm	1 ppm
Iso-Butene	0-300 ppm	1 ppm
Iso-Propyl Alcohol	0-300 ppm	1 ppm
Methanol	0-200 ppm	1 ppm
Methyl Amine	0-100 ppm	1 ppm
Methyl Mercaptan	0-40 ppm	1 ppm
Nitric Oxide	0-100 ppm	1 ppm
Nitrogen Dioxide	0-50 ppm	0.1 ppm
Oxygen	0-25.0% Vol.	0.1 % Vol.
Phosgene	0-3.00 ppm	0.01 ppm
Phosphine	0-10.0 ppm	0.01 ppm
Phosphine	0-500 ppm	1 ppm
Propylene	0-100 ppm	1 ppm
Propylene Oxide	0-200 ppm	0.1 ppm
Silane	0-10.0 ppm	0.01 ppm
Styrene	0-100 ppm	1 ppm
Sulfur Dioxide	0-50.0 ppm	0.01 ppm
Tetrahydrothiophene	0-40 ppm	1 ppm
tert-Butyl Mercaptan	0-40 ppm	1 ppm
Triethylamine	0-100 ppm	1 ppm
Trimethylamine	0-100 ppm	1 ppm
Vinyl Acetate	0-100 ppm	1 ppm
Vinyl Chloride	0-100 ppm	1 ppm



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