

Safety, IH, IAQ, Stacks, Process, Leak Detection & Environmental Measurement in Chemical, Petrochemical, Manufacturing & Power Plants



PID Snap-On Heads
9.5, 10.6, 11.6 eV



Model 102+



Sensors > 20



Model 103 IAQ Analyzer



Data Logging to PC



Model 106 Confined Space



Model 1100P Stack Gas



Model 104 Water Quality



Model 1000P NH₃

FIELD PORTABLE ANALYZERS

Model 102 - PID+ -Analyzers for total VOCs & Inorganics in air -measure 1-5 parameters

PID, 9.5, 10.6 or 11.7 eV heads available

Parameters: **PID** + 1-3 optional sensors (CG, TC, EC, RH...)

FEATURES-Fast response-PID- **1 sec. to 90%**

- Datalogger (7,000 pts) & alarms, diagnostics, 5 digit display of concentration; Weight: 1.9 pounds; Dimensions: 10.5 H x 3W x 2.25"D ; 16 bit ADC; Datalogging for 7,000 points (4 sensors), RS232
- **Applications:** Safety, IH. Leak Detection, Accelerants at Arson scenes, Hazardous waste spills and site evaluations, transportation, Total VOC's in Air, Water and Soil
- Detection of : VOC's (ppm, ppb) ,O₂, CO, H₂S, PH₃, SiH₄, Cl₂, HCN, HCl, H₂, SO₂, NO, NO₂; LEL

Model 103 - PID- IAQ Analyzer- 4-6 parameters

For the industrial hygienist conducting indoor air pollution surveys.

- Minimum system is ppm, ppb, RH & T- options CO₂ by IR and an additional EC sensor (choose from 15 EC sensors) or IR-CO₂ & RH/T & EC (CO or other EC)
- PID + ppm (0.1-500 ppm) & ppb (0-20,000 ppb) range, snap on RH & T probe, CO₂, & 1 EC
- PID sensitivity library, Datalogging & alarms, diagnostics, 5 digit display of concentration
- Weight: 1.9 pounds; Dimensions: 10.5 H x 3W x 2.25"D

Model 104- Water Quality Analyzer- 3-6 parameters

- Simultaneous **Measurement of 3-6 parameters:** pH, Conductivity, Salinity, Temp., Turbidity, plus dissolved O₂
- Weight: 2.3 pounds total; Dimensions: 8"H x 3"W x 2.25" D - readout; 2.5" D x 6" L -sensor head
- Datalogging for >7,000 points, RS232, Diagnostics

Model 105- TCD+-

Simultaneous Measurement of **1-5 parameters:** LEL (TC) %, 0-100v/v % (TC), O₂%, CO, & H₂S (ppm), LEL library of > 50 compounds. *Ideal for natural gas measurements.*

Weight: 1.7 pounds; Dimensions: .5 H x 3W x 2.25"D, 16 bit ADC; Datalogging for 7,000 points (4 sensors), RS232

Model 106 CG+- Confined Space Site Entry

- Simultaneous Measurement of **1-4 parameters:** LEL (CG) %, O₂%, CO, & H₂S (ppm), LEL library of > 50 compounds
- Weight: 1.7 pounds; Dimensions: 8.5" H x 3W x 2.25"D,

FEATURES

102 PID+

Snap-on PID Heads

Measure **1-5** parameters

Optional ppb range 0-20,000

Wide range 0.1-3,000 ppm

to 30,000 with Dilution probe

PID Library for >250 cpds

Easy to calibrate, datalogging

Sensors: PID, TCD, CG, EC

(15), IR, RH, T

sample pump

103-IAQ +

Snap-on RH/T probe

Measure **4-6** parameters

ppb range 0-20,000

Wide range 0.1-500 ppm.

PID Library for >300 cpds

Sensors: PID, EC (15), CG,

TC, sample pump

104-WQA

Measure **3-6** parameters in water-

Applications: Water quality surveys, monitoring industrial outfalls, rivers, streams, lakes

105 TCD+

Measure **1-5** parameters

Sensors: TC (% LEL & %v/v), O₂, CO, & H₂S, datalogging & sampling pump

106 CG+

Measure **4** parameters

(2) EC & CG & O₂ - (4) parameters for confined space

PID, CG, EC, IR, TC, Capacitance, T, pH, Conductivity

1100-P Landfill Gas analyzer

CH₄, O₂, CO, H₂S

0-100% CH₄, 0-30% O₂

Weight: 1.7 pounds; Dimensions: 8.5 H x 3W x 2.25"D ;
16 bit ADC; Datalogging for 7,000 points (IR+ 3 EC
sensors), RS232

Special sensors for high levels & acid gases
Sampling systems

113 Electrochemical +

1 to 3 Electrochemical (EC) sensors,
long lifetime O₂ sensor; headspace measure-
ments

114 IR+

IR sensor for CO₂ (0-2,000, 5,000 or 10,000
ppm)

1000-P-NH3

Battery operated system in a NEMA 4 enclosure.

- Datalogger (7,000 pts) & alarms, diagnostics, 5 digit display of concentration; Weight: 5.9 pounds; Dimensions: 6^{3/4} W x 10^{3/8} W x 6" D ; 16 bit ADC; (NH₃ + additional EC sensors), RS232

1100-P Stack Gas Analyzer

CO, SO₂, NO; other sensors- NO₂, CO₂, O₂, H₂S,
NH₃

Battery operated system in a NEMA 4 enclosure.

- Datalogger (7,000 pts) & alarms, diagnostics, 5 digit display of concentration; Weight: 5.9 pounds; Dimensions: 6^{3/4} W x 10^{3/8} W x 6" D ; 16 bit ADC; (4 sensors-3 EC), RS232
- **Applications:** Combustion sources, incinerators, scrubbers

Special sensors for high levels & acid gases
Sampling system

FEATURES/ Range Range

CH₄- 0-100%
O₂- 0-30%
CO- 0-4,000 ppm
H₂S- 0-1,000 ppm

Safety surveys of toxic gases &
O₂, headspace measurements
for O₂ in pharmaceutical prod-
ucts, ...

Easy to use IR sensor for CO₂
measurements for IH, IAQ,
quality control

Ideal Analyzer for ammonia
NH₃ over a wide range from 0.1-
-10,000 ppm; ambient measure-
ments to wet scrubbers

Range

Standard Sensors

CO 0-4,000ppm

SO₂ 0-2,000 ppm

NO 0-5,000 ppm

Other sensors

NO₂ 0-200 ppm

CO₂ 0-20,000 ppm

O₂ 0-30%

H₂S 0-1,000 ppm

CG- 0-100% LEL

Brief Sensor Specifications

Table I
Sensor Specifications

Sensor	Range ppm	Det. Limit	Resp.Time (s)	Interferences/Sensor
Ammonia	0-50	0.1	30	Acid gases
Carbon Monoxide	0-1,000	0.5	15	H ₂ , C ₂ H ₄
Chlorine	0-10	0.1	30	
ETO	0-100	0.1	30	MEK, Ethanol
Formaldehyde	0-100	0.1	30	Oxygenated HC
Hydrogen Cyanide	0-100	0.1	50	C ₂ H ₄ , H ₂ S, SO ₂
Hydrogen Chloride	0-100	0.1	15	SO ₂ , NO ₂
Hydrogen Sulfide	0-100	0.1	20	_____
Hydrogen Sulfide	0-5,000	0.1	15	_____SG with filter
Nitric oxide	0-250	0.1	10	NO ₂
Nitric oxide-SG		0.1	10	_____with filter
Nitrogen Dioxide	0-20	0.1	15	NO, H ₂ S
Nitrogen Dioxide-SG		0-200	0.1	NO, H ₂ S
Oxygen	0-30%	0.1%	8	_____
Oxygen-SG**	0-30 %	0.1%	8	_____
Oxygen	0-2%	0.1	15	_____
Ozone	0-2	0.02	75	NO ₂
Phosphine	0-5	0.05	40	SiH ₂ , GH ₄ , B ₂ H ₆
Sulfur Dioxide	0-5	0.1	20	NO ₂
Sulfur Dioxide-SG	0-5000	0.1	20	NO ₂ filter
Silane	0-5	0.05	30	AsH ₃ , PH ₃ , B ₂ H ₆
Methane	0-100%	1%	25	_____IR Sensor
Carbon Dioxide	0-5,000	100	25	_____IR Sensor
PID -ppm	0-3,000	0,1	1	_____
PID- ppb	0-20,000	1	1	_____
Combustible Gas	0-100 % LEL	0.1%	10	_____
Thermal Conductivity	0-100% v/v	0.1%	15	_____
pH	0-14	0.1	10	_____
Temperature	0-100°C	0.1	10	_____
Conductivity	0-15 S/m	0.15	10	_____
Turbidity	0-3,000 NTU	0.10	10	_____
Diss. O ₂	0-19.99	0.01	10	_____

SG= Stack Gas Sensor, ** Uses acidic electrolyte to prevent interferences from acid gases



25 Walpole Park South Dr. Walpole, MA 02081

Tel. 1-508-660-5001 USA or Canada 1-800-724-5600 Fax. 1-508-660-5040 Web: <http://www.hnu.com> E-mail: sales@hnu.com

PID Analyzers, UK, 9 Pennington Close, Frodsham Cheshire WA6 7NL Tel/Fax 01928-732-395

Web: <http://www.pidanalyzers.co.uk> E-mail: sales@pidanalyzers.co.uk

HNU Nordion, Ltd, OY, Atomitie 5 A 3, PL 1, Helsinki, Finland Tel. +358-9-565 7240 Fax +350-9-562 6801

Web: <http://www.hnunordion.fi> E-mail: Info@hnunordion.fi