NEW Portable FID

For Method 21 and Environmental Monitoring of VOC's including methane

Ambient Air, Chemical & Petrochemical Industry, Leak detection Stacks, Laboratories, Remediation Sites, Landfills

Model 115 Snap on FID

Model 115 fuel cylinder

Leak Detection (EPA Method 21), Stacks, Area Monitoring, Effluents

PID ANALYZERS

Model 115 PORTABLE FID

INTRODUCTION-

PID Analyzers manufactures a number of analyzers including Portable PIDs, FID's Laboratory Instruments and Continuous Monitors. HNU introduced the first commercial photoionization based instrumentation. Nearly 45,000 of the portable and and laboratory PIDs have been sold throughout the world. Many United States Environmental Protection Agency and Occupational Safety & Health Administration (OSHA) methods have been published in the Federal Register.

Principle of Operation

The process of burning a hydrocarbon in a hydrogen flame generates positive (carbon) ions. An accelerator electrode (positively biased) pushes the ions, to the collector electrode where the current generated (proportional to concentration) is amplified and displayed on the digital meter.

FEATURES

Durable & Rugged

More than 30,000 HNU portable PID's (101's) have been sold worldwide since HNU introduced the first PID in 1974. More than 90% of these instruments are still working today. These instruments are the most rugged and durable instruments on the market toda y. They do not require replacement every two to three years.

Accurate Results

HNU's unique FID design, state-of-the-art electronics and **microprocessor control** ensures the most accurate results for VOC measurements.

Zero

HNU's unique automatic zero with zero gas provides a reliable calibration point so that when calibrated with a span gas, this is a two point calibratio n.

Easy to Maintain

HNU's new Duraclean™ FID is more inert and will run for longer periods without the need for cleaning the FID head or the ion chamber

In addition, **a new libr ary of compounds > 150 is available** for selection by the customer.

Snap On FID- easy to interchange modules-just snap on to the Docking Module and the instrument is ready for calibration

in seconds. No cables or wires to fuss with.

Chemicals Detected

VOC's, hydrocarbons, methane, ethane, propane, benzene, TCA, methylene chloride, 1.3 butadiene ...

Extended Range- (linear)

From 1 ppm to 30,000 ppm for DL115-FID for EPA Method 21

for leak detection

- Fast response <3 seconds to 90%
- Wide dynamic range (16 bit ADC) ppm to %

- Library- >200 compounds
- Excellent stability (zero & span)
- Alphanumeric display- pt. #, units, mode
- Other "snap on" detectors for CO, NH_3, H_2S, CH_4, SO_2, NO, Cl_2, H_2 ...- available now

APPLICATIONS

Non-specific- 115- Responds to all VOCs including methane

Headspace- VOCs in soil or water

Quality control- residual monomer in resins, residual solvents in paper or food, testing gas masks...
EPA Method 21- to 30,000 ppm

Emergency response- spills from trucks & trains
Fugitive emissions- leak detection
Arson investigations- find trace accelerants
Confined space entry- health & safety

Controls

- On/off
  Bkl- Backlight
- Incr
  Decr

Menus

Log
Cal

Options

Dilution probe (10:1) extends range to 30,000 ppm

- ppb Readout
- Carrying case
- Calibration kit
- RS232 & downloading software
- Belt clip for holding 102 via strap

Specifications

- Single unit construction
- 12.0" L x 3" W x 5"H- includes fuel cylinder
- Weight 5.5 pounds
- Simple 3 button operation
- No keyboard
- Easy to use even for unskilled operators
- Library of sensitivities built in for > 150 compounds
- Use “Resp as” to setup for direct reading
- Alphanumeric display for compound, detector , alarm, range, & logging
- Linear to 30,000 ppm
- Bright LCD digital display for readability/backlighting selectable
- Fast response 3 sec to 90%
- Datalogging for 7,000 points
- Wide dynamic range FID- >6 decades
- RS232 output
- Auto zero in Cal, background zero
- Simple pushbutton sensitivity control

Reliability

The basic simplicity, durable construction and design of the Model 102 has resulted in the elimination of problem areas associated with many measurement techniques.

Other Instruments-

PID Analyzers manufactures continuous monitors such as: FIDs & PIDs for total hydrocarbons, NDIRs for CO, CO_2, CH_4, N_2O NO SO_2 and hydrocarbons, & Process GCs. Additional products include portable PIDs, portable GCs laboratory GCs, add-on detectors and XRF instruments

Controls for the Model 115

On/Off- Battery power
Incr-Function ON, scrolling menu up, increase number
Decr-Function OFF, scrolling menu down, decrease number
Bkl-Turns backlight on/off

Menus

Log
Manual-Set site #, and manually log each pt.
Auto- Set ave. time (sec) and samples/hr. to Auto log
Site # 1-7000
Setup- Setup Auto; Ave. time sec., samples/hour
Exit- Return to Run
Cal
Cal- Performs zero, set cal value, calibration
Bkg Zero-
Cal Gas- Select name of cal gas
Resp as- Once the 115 is calibrated-change to direct reading on any of > 200 compounds
Alarm- Set Alarm value for audible alarm
Exit- Return to Run mode

Datalogging

The 115 has manual or automatic datalogging capability for up to 7,000 points. The software for data logging is included with the Model 102. IT uses W indows Hyperterminal for downloading the information for the 102. A typical Auto datalogging fromat is shown below:

102 Data From Hyperterminal

Site		Date	Time		ppm
495	SP6	6/12/2004	15:02:27	7	1.7
496	SP6	6/12/2004	15:03:27	7	1.6
497	SP6	6/12/2004	15:04:27	7	1.6
498	SP6	6/12/2004	15:05:27	7	1.6
499	SP6	6/12/2004	15:06:27	7	1.6
500	SP6	6/12/2004	15:07:27	7	1.6

End Of Log Data

This data cab be imported directly into Excel as Tab Delimited ASCII.

SNAP ON HEADS

There are more than 20 sensors available for the HNU Snap On Head. Each head has a PID (except for the FID head). **One additional sensors can be added** to an FID. This includes a choice of the following sensors: Electrochemical (choice of 12),Infrared (choice of 2), RH/T (combined 2 sensors), and TCD

Typical Applications include:
Confined Space- FID/LEL/O_2/CO
Leak Detection- LEL, FID
Wastewater tmt.-FID/H_2S
Chemical Plant- FID/Cl_2
Pulp & Paper- FID/H2S
Combustion leaks- FID/CO

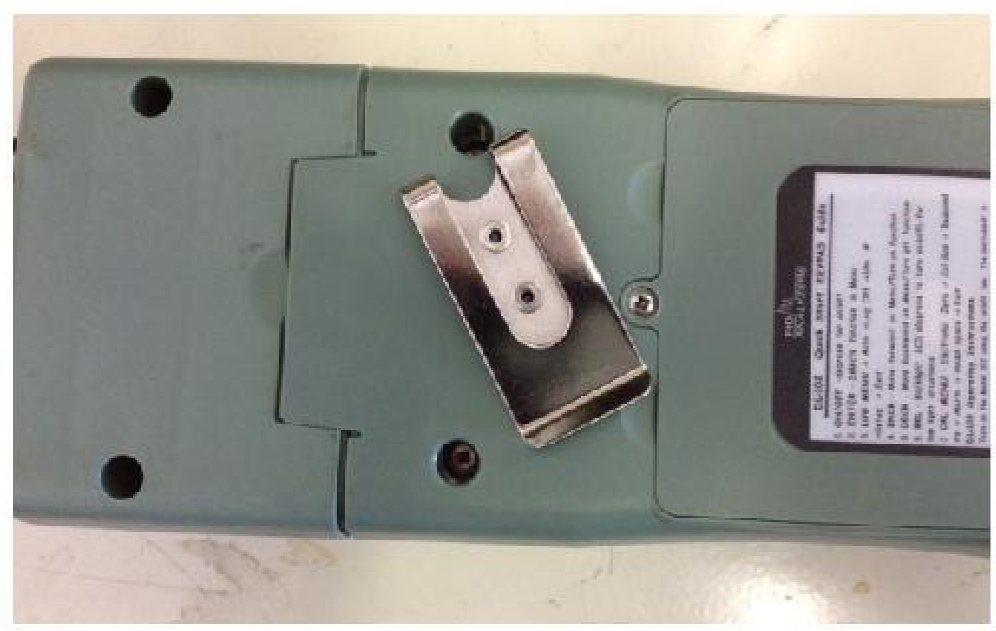
Unique Features of the PID Model 115 FID

1. Library for > 150 compounds
2. Calibration button on keypad instead of in a menu or 1-2 levels down
3. Two ranges of FID 0-2,500 ppm & 0-50,000 ppm
4. Analog output (customer programmable) 0-1VDC
5. Metal hydride storage device that holds >70L of H2- operating hours > 50
6. Low pressure refill system (200 psi) with quick disconnect coupling

The easy to use Model 115 contains a complete electronics package including:

1. FID 0-2,500 ppm and 0-50,000 ppm
2. Two other channels for Flame temperature & battery capacity %
3. Weight < 1.8 pounds readout- 2 # H2 cylinder- smallest and lightest of any portable FID
4. Analog output (customer programmable range) is available on this analyzer

5. New belt clip for Model 115



115 Belt clip

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