



# DP<sup>®</sup> 4 FLAME IONIZATION GAS LEAK DETECTOR

## THE LEADING GAS DETECTOR IN SEARCHING FOR UNDERGROUND LEAKS

Heath introduces the DP 4, a portable flame ionization gas leak detector for walking and mobile leak surveys. It reads from 0-10, 0-50, 0-100, 0-1,000, and 0-10,000 parts per million (PPM) and has a fast response time due to its strong internal sample pump system. The DP 4 is the most cost effective instrument on the market.

### FLAME IONIZATION TECHNOLOGY

The DP 4 utilizes this well known and field proven principle to measure very small concentrations of hydrocarbons. A controlled amount of fuel is mixed with a sample and burned. When hydrocarbons are present in the sample, ionization occurs. The amount of ionization is electrically measured and converted to a visual indication of hydrocarbon level in PPM via the instrument's meter.

Heath designed the DP 4 to maximize its operational life. The all new ignition system utilizes a low voltage hot wire ignition. The fuel flow system incorporates advanced design elements. Fewer mechanical components requiring fewer adjustments have made the DP 4 more stable, resulting in more reliable fuel flow

rates and calibration settings. The DP 4 has a new modular design that is rugged and weather resistant. Mechanical controls have been replaced by membrane switches that last longer and are more reliable.

Many of the design features are based on "intelligent" electronics that save time and money. The DP 4 monitors the cell base temperature, automatically stopping the fuel flow if the temperature is too high, as when using 100% H<sub>2</sub>, thus preventing damage to the instrument. The DP 4 automatically stops the fuel flow when it is turned "Off", extending the operating supply in the fuel cylinder and eliminating the need for the operator to remove the cylinder after each use.

The DP 4 automatically monitors the input sample flow rate and alerts the operator when the sample rate is not within an allowed range using audio and light emitting diode (LED) alarms. Zero adjust and instrument PPM range selection is accomplished in a simple push button operation.

### EASY OPERATION

The DP 4 uses conventional 40% hydrogen and 60% nitrogen fuel, making it compatible with existing systems. Calibration in the field continues to be simple. The DP 4 can be carried with a shoulder strap or built-in handle that is ergonomically designed for comfort. Also, it can be easily used in a mobile leak unit equipped with an auxiliary sample system.

Operating the DP 4 is easy with the new design features. The battery pack uses Nickel-Metal-Hydride (NiMH) technology for longer operating life, lighter weight and reduced maintenance.



#### Features:

- ⇒ Compact & user-friendly
- ⇒ Intelligent electronics
- ⇒ Large backlit display
- ⇒ Range scales from 10 to 10,000 PPM  
(Optional 100,000 PPM)
- ⇒ Automatic fuel shut-off
- ⇒ Long life membrane switches
- ⇒ Audible and visual alarms
- ⇒ Hot wire ignition

**See back for specifications  
and ordering instructions**

## Specifications

**Instrument Weight:** 7 lbs. (3.2 kg)

**Telescopic Probe:** Extends from 25 to 41 inches (63 cm to 104 cm); 1 lb. (.45 kg)

**Sensitivity:** 5-scale operation: 0-10, 50,100, 1000, and 10,000 PPM gas in air. (Optional 100,000 PPM)

**Sampling Rate:** 2.0 liters per minute, nominal

**Fuel Consumption:** 30 cc per minute (40% hydrogen and 60% nitrogen)  
(High altitude above 3,000 ft - 42% hydrogen and 58% nitrogen)

**Meter Readout:** Analog meter with backlight

**Alarms:** Pulsating audible and visual alarm for leak indications: continuous audible for flame-out indication. Low sample audible alarm and light emitting diode (LED) indicator

**Ignition:** Low voltage hot wire

**Batteries:** Nickel-Metal-Hydride (NiMH) rechargeable battery pack. 1.5 AHr capacity at 12 VDC

**Battery Charger:** Available in 110 VAC or 220 VAC, 50-60 HZ (must specify) 14 oz., (0.4 kg.)

**Fuel Bottle Capacity:** Approximately 7 cubic inches each (water capacity)

**Daily Operating Life:** Approximately 10 hours with full battery charge and two fuel bottles

**Total Shipping Weight:** 29 lbs. (13.2 kg)

**Carrying Case Dimensions:**

28"L x 19 1/2" W x 9"H  
(71 cm x 49 cm x 23 cm)

**Warranty:** One year parts and labor, excluding abuse and unauthorized modification



## Descriptions

**DP 4 Complete:**

P/N 100659-0  
P/N 100659-1 for High Altitude  
P/N 100659-4 for 0-100,000 PPM  
Includes telescopic probe assembly, 2 fuel cylinders, transfiller, 110 VAC battery charger, extra filters, shoulder carrying strap, fuel bottle o-rings, low pressure gauge, o-ring lubricant, instruction manual and carrying case.

**DP 4 Complete with 220 VAC Battery Charger:**

P/N 100659-2  
P/N 100659-3 High Altitude

**ACCESSORIES**

**DP 4 Calibration Kit:**

P/N 0123309-0 - field kit with 100 PPM methane bottle

**Calibration Gas:**

P/N 0123071 - 100 PPM methane/balance air.  
Refillable bottle.

**Mobile Kit:**

P/N 102316-0 - mobile kit 4 cones  
P/N 102331-0 - mobile kit 6 cones includes sample assembly, tubing, pump with fittings, inverter, mounting bracket and necessary hardware.

*Heath Consultants Incorporated operates under a continual product improvement program and reserves the right to make improvements and/or changes without prior notification.*



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