



HI 99121

DIRECT SOIL pH MEASUREMENT KIT



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The HI 99121 kit has been designed to measure pH directly in soil accurately and quickly. Every item in this kit has been made to facilitate measurements in the field without compromising accuracy. With HI 99121 you can test both the pH of soil directly or after preparation of a diluted sample. In order to measure the pH directly, the kit includes a plastic auger to perforate the ground.

The HI 1292D pH electrode has been specifically designed for direct soil measurement. It has a conical, rugged tip and can be directly inserted in moist or soft soil.

Use the specially made HI 7051M soil preparation solution for higher degrees of accuracy, or for stony ground where the electrode may be damaged. This solution is included to help you measure pH more precisely by diluting the soil sample.

The HI 99121 easily fits in the palm of your hand and the bottom probe connection ensures the electrode cable doesn't get in your way. The large, multi-level LCD displays the primary reading, temperature and calibration guides simultaneously.

FEATURES

- **Specialized soil electrode**
- **Waterproof**
- **Multi-level LCD display**
The meters display the current measurement simultaneously with the current temperature. A quick-guide is also displayed to aid users in instrument operation
- **HOLD**
The Hold button freezes readings on the display so you can easily record readings manually
- **Automatic Temperature Compensation**
- **Automatic 1 or 2 point calibration**
- **BEPS**
BEPS (Battery Error Prevention System) alerts the user in the event that low battery power could adversely affect readings
- **Battery % displayed on startup**
- **Easy to clean and keep clean**



**WE DESIGN, MANUFACTURE, SUPPLY AND SUPPORT
ALL OF OUR PRODUCTS.**

THAT'S 360° VALUE

Over the past 30 years, **HANNA** has never failed to design fresh and innovative products and the new HI 99121 is no exception. We are excited to introduce such high accuracy and ease of use in a compact, modern design that fits right in your hand.

HANNA is the largest family-owned manufacturer of analytical instrumentation in the world. The HI 99121 is manufactured in our European state-of-the-art ISO 9001:2000 production facility and is CE compliant to EN 61326-1 and EN 61010-1 standards.

When you buy a **HANNA** product, you're not only buying the best value for your money, but you're also adding the benefit of **HANNA's** unsurpassed customer service and post-sale technical support.

Specialized Soil pH Electrode, Ground Auger & Starter Solutions Included!



HI 1292D CONIC TIP pH ELECTRODE

The HI 1292D pH electrode has been specifically designed for direct soil measurement. It has a conical, rugged tip and can be directly inserted in moist or soft soil. The electrode incorporates a temperature sensor right near the tip to enable it to measure and quickly compensate for temperature.

- **Direct Soil Electrode**

The conical can be inserted directly in moist or soft soil. A Soil preparation solution and ground auger is included for harder soils

- **Easy to Clean**

The glass electrode is easy to clean and keep clean by design



Shown with HI 710020

protective boot (optional)

- **Protective Rubber Boot**

The optional protective rubber boot helps protect your meter

SPECIFICATIONS		HI 99121
Range*	pH	-2.00 to 16.00 pH
	Temperature	-5.0 to 105.0°C; 23.0 to 221.0°F
Resolution	pH	0.01 pH
	Temperature	0.1°C/0.1°F
Accuracy (@20°C)	pH	±0.02 pH
	Temperature	±0.5°C up to 60°C; ±1°C outside; ±1°F up to 140°F; ±2°F outside
Temperature Compensation	Automatic	
pH Calibration	Automatic 1 or 2 point calibration with 2 sets of memorized buffers (4.01, 7.01, 10.01 or 4.01, 6.86, 9.18)	
Electrode (included)	HI 1292D pre-amplified pH/temperature electrode with DIN connector and 1 m (3.3' cable)	
Battery Type	(3) 1.2V AAA	
Battery Life	Approximately 200 hours of continuous use	
Auto-off	After 8 minutes of non-use	
Environment	0 to 50°C (32 to 122°F); RH max. 100%	
Dimensions	150 x 58 x 29 mm (5.9 x 2.8 x 1.1")	
Weight	205g (7.2 oz.)	

ORDERING INFORMATION

HI 99121 is supplied with hard carrying case, HI 1292D pH electrode, HI 721319 soil auger, HI 7051M soil preparation solution, starter set of calibration solution sachets, 100 ml plastic beaker, (3) 1.2V AAA batteries and instructions.

ELECTRODES

HI 1292D pH electrode for soil measurement, with internal temperature sensor, DIN connector on a 1 m (3.3') cable.

SOLUTIONS

HI 5004L pH 4.01 buffer solution, 500 mL
HI 5007L pH 7.01 buffer solution, 500 mL
HI 5010L pH 10.01 buffer solution, 500 mL

HI 70300L Electrode storage solution, 500 mL
HI 7051M Soil preparation solution, 250 mL
HI 700661P Electrode cleaning solution for agriculture, (25) 20 mL sachets
HI 700663P Electrode cleaning solution for inorganic soil deposits, (25) 20 mL sachets
HI 700664P Electrode cleaning solution for organic soil deposits, (25) 20 mL sachets

ACCESSORIES

HI 721319 Ground auger
HI 710020 Orange protective rubber boot
HI 710021 Blue protective rubber boot



Recommended Operating Temperature
-5 to 30°C (23 to 86°F)
+20 to 40°C (66 to 104°F)

SPECIFICATIONS	HI 1292D
Description	pH electrode
Reference	Single, Ag/AgCl
Junction / Flow Rate	Ceramic, triple / 40-50 µL/H
Electrolyte	KCl 3.5M + AgCl
Max Pressure	0.1 bar
Range	pH: 0 to 12; T: -5 to 100°C (23 to 212°F)
Tip /Shape	Conic (12 x 12 mm)
Temperature Sensor	Yes
Amplifier	Yes
Body Material	Glass
Connection/Cable	7-pin DIN/7-pole; 1 m (3.3')
Recommended Use	Direct soil pH measurement, soil solution

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instruments
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