

NON-NUCLEAR SOIL ELECTRICAL DENSITY GAUGE EDG-1S

STANDARD: ASTM D7698

The Electrical Density Gauge (EDG) is a nuclear-free alternative for determining the moisture and density of compacted soils used in road beds and foundations.

The EDG is a portable, battery-powered instrument capable of being used anywhere without the concerns and regulations associated with nuclear safety.

Easy-to-use, the EDG can be used as a construction aid to monitor day-to-day compaction operations by providing performance and measurement results highly comparable to those achieved with traditional methods, including the nuclear gauge and/or a sand-cone and oven moisture test combination.

Its user-friendly, step-by-step menu guides the user through each step of the testing procedure and cautions the user when values do not correspond to established curves for the material being tested.

- ✦ Color touch screen
- ✦ More accurate data
- ✦ New GPS function (Optional)
- ✦ USB connection, more convenient for data transmission and software upgrading later



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OPERATIONAL SPECIFICATIONS:

MEASUREMENT MODE:

Average: Averages four (4) readings and stores data including location, date and time. Stores infinite records.

Functions:

Wet & Dry Density, % Compaction, % Moisture

SOIL SPECIFICATIONS:

Designed to operate with standard soils used in civil construction projects.

Requires inputs from standard

- Standard Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils (ASTM D4318)
- Particle Size Distribution (ASTM D422)
- Proctor Test (ASTM D698 and D1557)

Operating Temperature: 0°C to 50°C

MECHANICAL SPECIFICATIONS:

Weight: 9 kg

Dimensions: 480 x 385 x 200mm

MEASUREMENT SPECIFICATIONS:

Sensing Area: 9.5 in. (24.1cm) square Dart Template allows optimum measurement on fine and coarse material types. A larger sensing area can be achieved by customizing the darts and dart template.

Measurement Depth: The standard dart is 15cm, and 30, 50 and 80cm darts can be customized.

Measurement Display: Dry Density, % Compaction, % Moisture, GPS Data, Material Information and Project Name

Accuracy: The accuracy can reach $\pm 1\%$ except for the measurement of Collapsible loess. (The measurement accuracy of collapsible loess is $\pm 3\%$.)

ELECTRICAL SPECIFICATIONS:

Microprocessor Controlled

Battery: 16800mAh, Li-ion battery

Battery Time: about 48 hours

Battery Charger: Input AC100V~245V, 50~60Hz, DC5V/1A

Computer Ports: 1 USB Port

OPERATIONAL FEATURES:

Display: Full color graphics driven user interface, 7"TFT (800*480) touch screen, display with LED backlight for easy visibility in daylight or dark situations

Status Bar: Displays GPS status, battery voltage, low battery and date and time

Project Details: Stores up to 200 projects with details

Soil Model: 48 sets of soil models can be stored

Material Details: Stores up to 20 materials, details include Material Name, Description, Max Dry Density, Opt. Moisture, Dry Density Offset, % Moisture Offset, % Greater than 3" , % Greater than 3/4" , % Gravel, % Sand, % Fines, PL, LL, Cu and Cc.

Data Logging: Ability to store all measurements

Reports: Easily download data to be imported into Excel

GPS Control: When activated will display latitude and longitude positions, number of satellites the gauge is connected to as well as the UTC date and time, also available in UTM format. GPS information will store with each measurement when Data Save feature is enabled, (Status Bar Icon)

Update Software: One touch upload of new software using a USB memory stick

Data Management: Quickly access, download or delete your project data

Set Time & Date: Quick time and date setup, MM/DD/YY and DD/MM/YY formats

Units: Interchangeable settings for Density (kg/m^3 , lb/ft^3), Temp ($^{\circ}\text{C}$, $^{\circ}\text{F}$)

Standardization: While gauge is still in the case, a quick one touch measurement will ensure the gauge is still in proper working mode

Enhanced customer support: Diagnostic screen to aid in factory support

User Programmable Target Density: Used for calculating % compaction