

# 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.

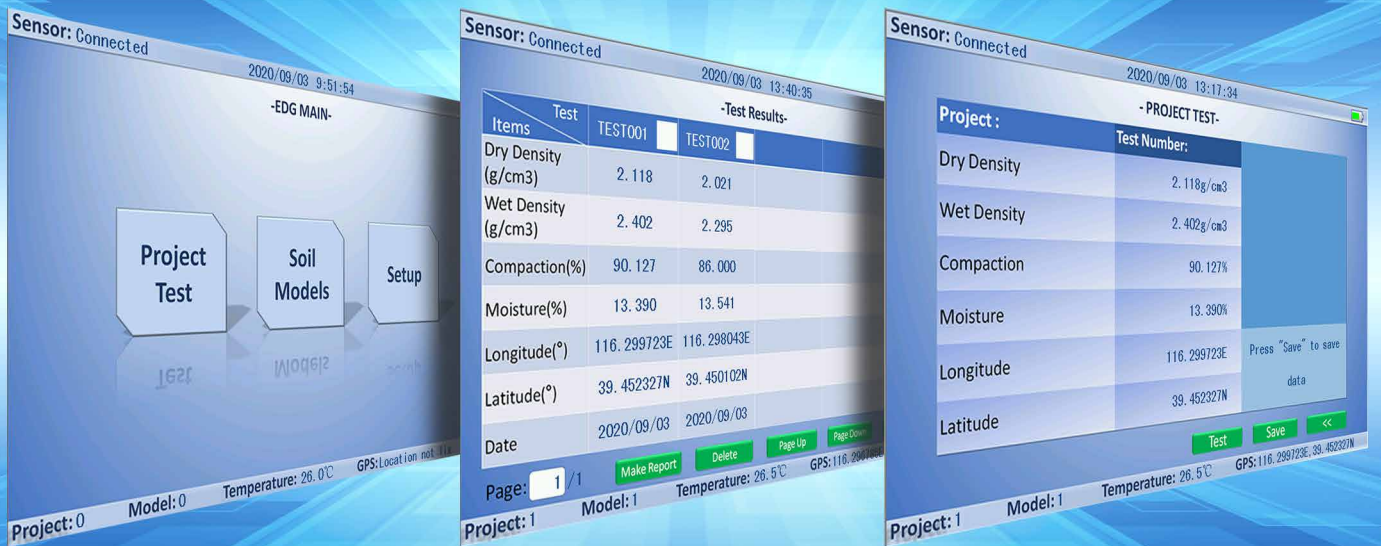
Easy-to-use, the EDG can be used as a construction aid to monitor day-to-day compaction operations by providing performance and measurement results highly comparable to those achieved with traditional methods, including the nuclear gauge and/or a sand-cone and oven moisture test combination.

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



## WORKING INTERFACE



## SOFTWARE

The software will allow you to communicate effortlessly with your EDG gauges and only requires minimal setup by the user. EDG Software provides a complete solution for the acquisition, storing, and presentation of Job and Soil Model data. EDG Software works in conjunction with Microsoft Excel to present test data in easy-to-read Excel workbook format files, which can be evaluated directly or sent to any computer using Microsoft Excel. Jobs can be grouped together within projects for organization and reporting.

## SOFTWARE FEATURES

- Communicate with all your EDG gauges.
- Download Job Data.
- Create customized reports from downloaded job data.
- Download Soil Model Data.
- Create reports from downloaded soil model data.
- Upload soil models to any EDG.
- Input proctor data for use in job data or soil model data.
- Time/Date, GPS stamps for each test

## 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<sup>3</sup>, lb/ft<sup>3</sup>), Temp (°C, °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