Model MS1500E

Handheld ER Corrosion Data Logger

The MS1500E is a hand-held, battery-powered, corrosion meter capable of measuring and storing data from all types of electrical resistance (ER) corrosion probes. The instrument is light weight, microprocessor-based, and features a simple, menu-driven interface using a 12-key keypad and a 4-line LCD display.

Probe shown in photo not included with corrosion meter

Corrosion rate measurements are made using the electrical resistance method. Essentially, the instrument measures the resistance of the probe element which changes over time, as metal loss occurs. The rate of change is directly proportional to corrosion rate. This method finds a wide variety of applications since it can be used in conductive and nonconductive environments such as petroleum, chemical, water, soil, or even atmosphere.

After taking a reading, the instrument displays metal loss in mils and corrosion rate in mils per year (mpy). The reading can then be stored to memory or discarded. All stored readings are automatically time and date stamped, and are protected by a lithium back-up battery. The instrument can store a maximum of 3,100 readings on up to 150 different probes.

Stored data can be uploaded to any IBM compatible PC as a comma-delimited ASCII text file. Because the data is in ASCII text format, it can be imported into any standard data analysis program such as Microsoft Excel. Data can also be reviewed on the instrument's LCD display for quick reference.

The MS1500E may also be used as a data transfer unit (DTU) for the MS3500E Remote Data Logger. Data may be transferred from multiple MS3500E field-based units to the MS1500E, then later transferred to a PC for analysis.

Technical Specifications

Model
MS1500E - Handheld ER Corrosion Data Logger (Ordering # IN1500)

Physical Data

Instrument Weight:	1.4 lb. (0.64 Kg)
Total Weight w/ Carrying Case and Accessories:	5.26 lb. (2.39 Kg)
Instrument Dimensions:	7.63”H x 4.15”W x 2.0”D (19.38cm x 10.54cm x 5.08cm)
Carrying Case Dimensions:	10”H x 11.75”W x 5.4”D (25.40cm x 29.85cm x 13.72cm)
Operating Temperature:	32° to 122°F (0° to 50°C)
Storage Temperature:	-4° to 158°F (-20° to 70°C)

Performance Data

Measurement Type:	ER measurement using any standard ER probe type (Wire Loop, Tube Loop, Cylindrical, Flush, Strip, etc.)
Range:	0-1000 digits representing 0-100% of probe life
Resolution:	1 digit

Electrical Data

Power Requirements:	Three 1.5V AA Batteries
Maximum Probe Cable Distance:	6 ft (1.83 m)
Output Specifications:	RS-232 Output in Comma-Delimited ASCII Text Format

Optional:
Intrinsic Safety

ETL LISTED ®
9900750

Class I, Division 1
Groups A, B, C, and D
Temperature Code T3C
Class I, Zone 0,
Group IIC, T3C
Conforms to ANSI/UL Std. 913

Intrinsic safety option must be specified when ordering.

Special Features
- Microprocessor-based electronics
- Data storage capacity of 3,100 readings on 150 different probes, with battery backup
- Menu-driven interface using a 12-key keypad and a 4-line LCD display
- Low-battery detection
- Portable

Accessory Items
Carrying Case, 6’ Probe Cable (attached), Meter Prover, Communications Cable and Connector, Operation Manual, Corrosion Data Management Software

Metal Samples

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