



MS2500E Loop-Powered ER Transmitter

The MS2500E is an intrinsically safe, microprocessor-based corrosion transmitter capable of measuring and transmitting data from all types of electrical resistance (ER) corrosion probes.

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.

Measurements are transmitted via 4-20mA current loop. Since current loop signals are not as sensitive to line loss as other types of data signals, the MS2500E may be located up to ten miles away from the data receiver under proper conditions.

The MS2500E is completely loop-powered, so installation is simple. A two-wire connection is all that is required for both instrument power and data transmission. Setup is also simple, using a set of switches to select the probe type to be measured (wire loop, tube loop, cylindrical, etc.).

The MS2500E is housed in a NEMA 4X rated explosion-proof and weather-proof enclosure, and the probe cable is connected through a water-tight, explosion-proof cable gland. This makes the MS2500E suitable for use in almost any indoor or outdoor environment.



Probe shown in photo not included with corrosion meter

Technical Specifications

Model

MS2500E - Loop-Powered ER Transmitter (Ordering # IN2500)

Physical Data

Instrument Weight: 5.02 lb. (2.28 Kg)
Total Weight w/ Accessories: 7.08 lb. (3.21 Kg)
Instrument Dimensions: 5.81”H x 4.5”W x 4.81”D (14.76cm x 11.43cm x 12.22cm)
Case Specifications: Explosion Proof (FM, CSA, CENELEC, UL)
Class I, Groups B, C, D, Class II, Groups E, F, G, Class III,
CENELEC: Eexd IIC
NEMA 4X, 7BCD, 9EFG
Mounting Specifications: 0.728”H x 1.756”W (1.85cm x 4.46cm) Bolt Pattern with 1/4-20
Tapped Mounting Holes, or May Be Mounted on a 1/2” to 2”
(1.27cm to 5.08cm) Pipe Using Supplied Hardware
Operating Temperature: 0° to 140°F (-18° to 60°C)
Storage Temperature: -40° to 176°F (-40° to 80°C)

Performance Data

Measurement Type: ER measurement using any standard ER probe type (Wire
Loop, Tube Loop, Cylindrical, Flush, Strip, etc.)
Range: 0-100% of probe life
Resolution: 0.4% of Full Scale
Cycle Time: 1 Minute

Electrical Data

Power Requirements: 10 to 35 VDC
Maximum Probe Cable Distance: 5 ft (1.52 m)
Output Specifications: 4-20mA Current Loop Output
Intrinsic Safety: Certified to CAN/CSA
STD E79-0-95 & E79-11-95
Class I, Division 1,
Groups C and D, T4

Special Features

- Switch selectable probe type (wire loop, tube loop, cylindrical, etc.)
- Loop powered

Accessory Items

5' Probe Cable (attached), Meter Prover, Mounting Hardware, Operation Manual

Metal Samples Corrosion Monitoring Systems

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