



MS2500L Loop-Powered LPR Transmitter

The MS2500L is a corrosion transmitter capable of measuring and transmitting data from all types of 3-electrode linear polarization resistance (LPR) corrosion probes.

Corrosion rate measurements are made using the linear polarization resistance technique. The instrument measures the current required to polarize the electrodes of a probe to a known potential. From the polarization potential and the measured current, polarization resistance can be calculated. Then, using Faraday's law, instantaneous corrosion rate is calculated from polarization resistance.

Another feature of the MS2500L is its high-precision voltmeter. This is used to measure the open-circuit potential between electrodes.

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 MS2500L may be located up to ten miles away from the data receiver under proper conditions.

The MS2500L 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 measurement function (corrosion rate or electrode potential).

The MS2500L 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 MS2500L suitable for use in almost any indoor or outdoor environment.



Probe shown in photo not included with corrosion meter

Technical Specifications

Model

MS2500L - Loop-Powered LPR Transmitter (Ordering # IN2500L)

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: 32° to 158°F (0° to 70°C)
Storage Temperature: 32° to 158°F (0° to 70°C)

Performance Data

Measurement Type: 3-Electrode LPR, Potential
Range: 3-Electrode: 0-100 mpy Potential: ± 1V
Cycle Time: 0.1 to 99.9 minutes

Electrical Data

Power Requirements: 11 to 35 VDC
Maximum Probe Cable Distance: 10 ft (3.05 m)
Output Specifications: 4-20mA Current Loop Output

Special Features

- Switch selectable measurement type and cycle time
- Loop powered

Accessory Items

10’ Probe Cable (attached), Meter Prover, Mounting Hardware, Operation Manual

Metal Samples Corrosion Monitoring Systems

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