Linear Polarization Resistance (LPR) Instruments

Real-Time Electrochemical Corrosion Rate Meters, Data Loggers & Transmitters

As an authorized Metal Samples distributor, Imotron supplies a complete range of Linear Polarization Resistance (LPR) instruments and meters for instantaneous electrochemical corrosion monitoring. Designed for industrial water treatment, chemical processing, and laboratory environments, these systems measure general corrosion rate, localized pitting tendency, and solution conductance.

1. LPR Instrument Portfolio

Category	Models	Key Features & Technical Specifications
LPR Handheld Instrument	**MS4500L**	Intrinsically safe, battery-powered portable data logger featuring USB / flash drive data transfer capability and support for both 2-electrode and 3-electrode LPR probes.
LPR Field Monitor	**MS2001L**	Field-mountable corrosion rate meter providing direct local readout for 2-electrode LPR probes and Zero Resistance Ammetry (ZRA) / galvanic current measurements.
LPR Transmitters *(CorrTran AQUA & MV)*	**MS2100L** **MS2801L** **MS2900L**	Continuous online transmitters measuring general corrosion, localized pitting index, and conductance in NEMA 4X / IP66 weatherproof enclosures. **MS2100L** (CorrTran AQUA) and **MS2900L** (CorrTran MV) feature 4–20 mA / HART output; **MS2801L** (CorrTran MV) provides RS-485 Modbus communication.
LPR Data Loggers	**MS3500L / MS3510L** **MS3600L** **MS6200L**	Dedicated data logging systems for continuous trend recording. **MS3500L / MS3510L** monitor remote locations with optional 4–20 mA current loop output; **MS3600L** is an intrinsically safe, battery-powered field-mounted logger; **MS6200L** is a multi-function bench-top logger with RS-232 output ideally suited for laboratory environments.

2. LPR Instrument Comparison & Measurement Matrix

Depending on the model, Metal Samples LPR instrumentation supports 2-electrode and 3-electrode configurations, Zero Resistance Ammetry (ZRA) / galvanic monitoring, electrode potential, pitting index, and conductance measurements.

Model	Form Factor	Measurements					Data Logging	Output
		Two-Electrode	Three-Electrode	ZRA / Galvanic	Electrode Potential	Pitting Index & Conductance		
MS2001L	**Field Mount**	Yes	–	Yes	–	–	–	–
MS2100L	**Field Mount**	–	Yes	–	–	Yes	–	4–20mA (HART)
MS2801L	**Field Mount**	–	Yes	–	–	Yes	–	RS-485 Modbus
MS2900L	**Field Mount**	–	Yes	–	–	Yes	–	4–20mA (HART)
MS3500L	**Field Mount**	Yes	Yes	–	–	Yes	Yes	Data Storage Unit 4–20mA (optional)
MS3600L	**Field Mount**	Yes	Yes	–	–	Yes	Yes	Data Storage Unit 4–20mA (optional)
MS4500L	**Handheld / Portable**	Yes	Yes	–	–	Yes	Yes	Data Storage Unit To PC thru USB
MS6200L	**Bench-top**	Yes	Yes	Yes	Yes	–	Yes	RS-232

> **Comprehensive Electrochemical Insight:** By combining general corrosion rates with localized pitting index and solution conductance measurements, LPR instruments enable rapid optimization of chemical inhibitor dosing and cooling water treatment programs.

Select the Right LPR Instrumentation for Your Facility

Contact Imotron Instruments for technical specifications, probe compatibility advice, and system configuration support.