Model ER0600 Corrosion Under Insulation (CUI) Probe

Real-Time Electrical Resistance Metal Loss Monitoring for Insulated Piping & Vessels

As an authorized Metal Samples distributor, Imotron supplies the Model ER0600 Corrosion Under Insulation (CUI) Probe for measuring corrosion behavior beneath the insulation of jacketed pipes where hidden corrosion can lead to unsafe operating conditions, equipment failures, and costly repairs. Utilizing a flush ER sensing element inserted through the outer pipe jacket and insulation layer, the probe provides continual, real-time metal loss data adjacent to the pipe wall.

> **Continuous Real-Time Monitoring vs. Retrospective "Fuse" Sensors:** Unlike retrospective CUI sensors that only trigger an alert after a threshold level of corrosion has already occurred, the Model ER0600 is a true Electrical Resistance (ER) probe delivering continuous metal loss trending and compatibility with any standard ER corrosion meter or data logger.

1. Technical Specifications & Design Features

Engineered for rapid installation and adjustable insertion depth across varying insulation thicknesses, each Model ER0600 probe features a protective castle-top tip and an industry-standard 6-pin electrical connector.

Parameter	Specification & Operational Details
Measurement Principle	True Electrical Resistance (ER) flush sensing element providing continuous, real-time metal loss data.
Probe Body Material	FRP / Epoxy rugged construction for industrial and plant environments.
Element Material	Carbon steel (standard); other alloys available on request.
Available Element Thicknesses	5 mil, 10 mil, 20 mil, and 40 mil.
Temperature Rating	Up to 300 °F (150 °C).
Tip & Spacing Design	Unique "castle-top" design sets proper element spacing adjacent to the pipe surface while eliminating the risk of shorting the probe element against the pipe wall.
Mounting & Depth Adjustment	Supplied with sheet metal mounting flange (secured to the pipe jacket with standard sheet metal screws through a single cut hole) and compression fitting for on-site depth adjustment and easy replacement.

Parameter	Specification & Operational Details
Instrument Compatibility	Industry-standard 6-pin connector compatible with standard ER handheld meters, data loggers, and transmitters.

2. Model ER0600 Ordering Information

Select the Model ER0600 CUI Probe according to the desired sensing element thickness to balance measurement sensitivity and service life.

Part Number	Element Thickness	Description & Standard Configuration
ER3B73C030837518	5 mil	Model ER0600 CUI Probe — 5 mil Carbon Steel flush element, FRP/Epoxy body, mounting flange & compression fitting.
ER3B73D030837518	10 mil	Model ER0600 CUI Probe — 10 mil Carbon Steel flush element, FRP/Epoxy body, mounting flange & compression fitting.
ER3B73E030837518	20 mil	Model ER0600 CUI Probe — 20 mil Carbon Steel flush element, FRP/Epoxy body, mounting flange & compression fitting.
ER3B73F030837518	40 mil	Model ER0600 CUI Probe — 40 mil Carbon Steel flush element, FRP/Epoxy body, mounting flange & compression fitting.

Deploy Real-Time Corrosion Under Insulation Monitoring

Contact Imotron Instruments for element thickness selection, custom alloy options, and compatible ER data loggers or wireless transmitters.