

Slimline ICL-C Test Station

Coating Integrity – Line Current Measurement – Cathodic Protection Effectiveness – Corrosion Rate

FEATURES

Complete instrumented test station (Big Fink or customized)

Line current measurement

ER probe for measurement of corrosion rate

Verification of CP efficiency

Long battery life - solar option

Remote monitoring - cellular or satellite via Masterlink module

GPS time synchronization

Data presentation, analysis, reporting in CP*Manage Web

MEASUREMENTS

- ✓ Line current
- ✓ Corrosion rate
- ✓ DC potential
 - ✓ On (pipeline)
 - ✓ Instant-off (coupon)
 - ✓ IR-free (coupon)
- ✓ DC current density
- ✓ AC voltage
- ✓ AC current density
- ✓ Spread resistance

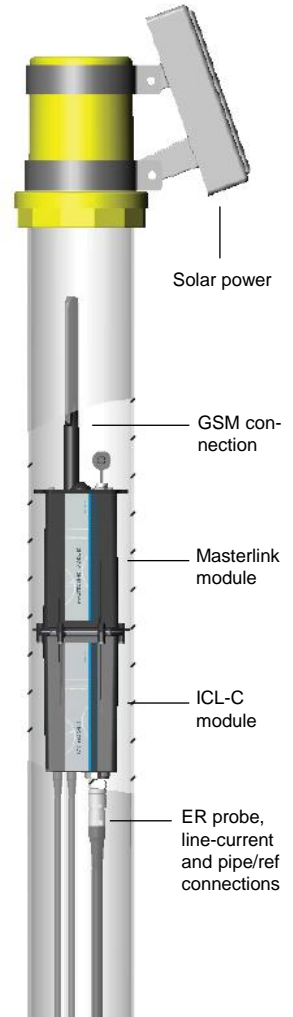
DATA AT YOUR FINGERTIPS - WHEREVER YOU ARE!

The MetriCorr ICL-C (Interference Corrosion Logger - Current) test station is designed for comprehensive CP and AC or DC interference analysis using a high sensitivity ER probe, with the added functionality of measuring line currents as a voltage drop across a known pipeline section. The line current facility can be used to assess the distribution of cathodic protection current in a pipeline system, and thus to locate sections with poor coating integrity. Continuous monitoring of this parameter can be used as an early warning system for third party damages.

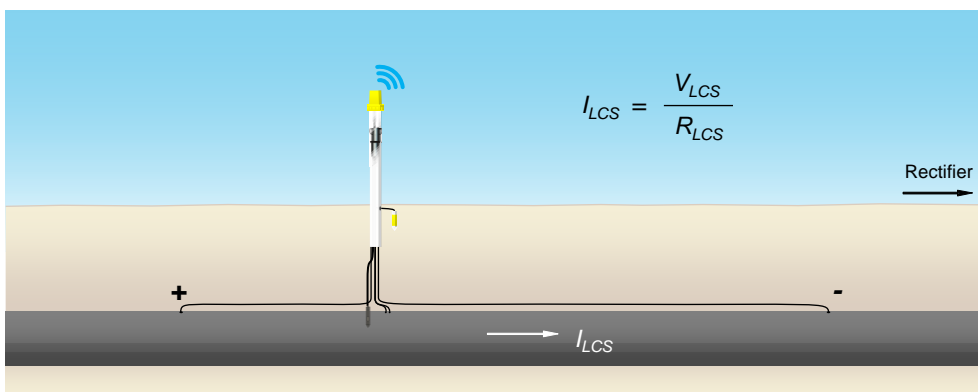
The MetriCorr ICL-C test station is part of a complete remote monitoring system for pipelines and associated components like T/R's, potential test stations, corrosion rate, critical bonds, etc. Alike the rest of the MetriCorr Slimline product series, the ICL-C is intended as a remote monitoring unit (RMU), a data logging device, or simply as a spot reading device. It may be operated through the MetriCorr CP*Manage Web or through the MetriCorr iOS/Android App.

The Slimline product family fits into Big Fink test stations (see example on the right), MetriCorr tests stations, junction boxes, or customized to fit into the operator's preferred embodiment.

The Slimline logger series from MetriCorr are modular. The ICL-C module is the data-logging part of the Slimline ICL-C/MasterLink assembly where pipe, reference, ER and line current channels are situated. The Masterlink Module is the remote monitoring unit (RMU) where power and communication is controlled.



Installation example



The line current (I_{LCS}) is calculated via Ohm's Law, where the resistance of a pipeline section (R_{LCS}) is a known value, and the potential difference (V_{LCS}) of the line current span is measured by the ICL-C, along with pipe-to-soil potentials, AC/DC current densities and corrosion rate on an ER probe

Technical specifications - ICL-C

Technical data		
Storage capacity	+200 000 readings	
Logging interval	10 min – ∞, Typically 1 hour 1s (intensive mode)	
Power supply options	- Mains adapter 100–240 V AC / 12 V DC - Solar Power (MetriCorr types available) - Battery Module	
Battery Lifetime	+3 years @ hourly logging, weekly upload +10 years @ 6 times daily	
Casing	IP65	
Humidity	0 to 100% RH condensing conditions	
Temperature	-40°C to +85°C	
Transient protection	1100 V for 150 ms – 20 kA @ 8/20 μs 12.5 kA @ 10/350 μs (optional)	
Test Station Options	- Big Fink (example shown on p. 1) - MetriCorr Type Test Station - Junction Box - Customer's own spec	
Size L x W x H	250 x 68 x 81 mm	
Communication	- LTE Cat. 1 - 4G/5G with 2G/3G fall back - Satellite (option) - Android or iOS App - Bluetooth - Ethernet (option) - GPS Time Synchronization - GNSS (Position)	
Voltage (Edc, Uac)	Input resistance	+10.0 MΩ
	Range	100 V
	Resolution	0.1 mV DC / 1 mV AC
	DC accuracy	± 1 mV ± 0.3% reading
	AC accuracy	± 1 mV ± 1% reading
Line Current mV Channel	Range	± 20 mV
	Resolution	0.1 μV
	Accuracy	± 0.5 μV ± 0.1% reading
	AC rejection	110 dB



Installation example



CP*Manage Web example

