

CorTalk[®] RMU1 LITE

Remote Monitoring of Pipe-to-Soil
Potential at Test Stations

CorTalk



RMU1 LITE: FIT-FOR-PURPOSE FUNCTIONALITY

A simple, cost-effective solution to obtain pipe-to-soil potential measurements in remote or difficult-to-access locations.

The MOBILTEX CorTalk **RMU1 LITE** enables pipeline operators to quickly and easily equip CP test stations with robust and reliable remote data collection of pipe-to-soil potential measurements.

Offering essential, fit-for-purpose functionality, the **RMU1 LITE** is an ideal solution to cost-effectively scale IIoT capabilities and gain the benefits that large deployment remote data collection can bring to pipeline operation and maintenance.

Rather than relying on a single, annual measurement of pipe-to-soil potential, pipeline operators can remotely collect multiple data points throughout the year to understand seasonal variations and operational irregularities in CP performance.

The battery-powered **RMU1 LITE** transmits measurement data via cellular or satellite networks at user-selected intervals to the **MOBILTEX CorView** web platform helping to dramatically reduce, or even eliminate, the need to travel to distant or difficult-to-access sites to obtain pipe-to-soil measurements.

Technicians can access measurement data from the **CorView** data and analysis platform using any web enabled device, from virtually any location, to see current and historical measurements, generate reports and perform trending and analysis to identify operational irregularities.



**THE RMU1 LITE COMPACT SIZE
ALLOWS EASY INSTALLATION
TYPICALLY IN UNDER 20 MINUTES**

ADVANTAGES OF CORTALK RMU1 LITE

- **FAST, SIMPLE INSTALLATION** — The compact, weather-proof RMU1 LITE is designed to fit entirely inside a standard CP test station and can be installed in about 20 minutes.
- **ENGINEERED FOR AFFORDABLE, HIGH-VOLUME DEPLOYMENT** — The RMU1 LITE has been designed to provide essential, fit-for-purpose functionality, enabling pipeline operators to affordably achieve high volume deployment and generate operational data that provides new insights into system dynamics.
- **INSTANT-OFF POTENTIAL MEASUREMENTS** — RMU1 LITE provides an instant-off potential measurement, generating additional data to meet regulatory requirements and better manage pipeline assets.
- **REMOTE DUAL-REFERENCE CELL VALIDATION** — RMU1 LITE offers the unique capability to obtain separate pipe-to-soil potential measurements from two connected reference cells. This allows technicians to compare the results and validate whether the reference cells are functioning properly.
- **GLOBAL COMMUNICATION CAPABILITIES** — Available with cellular or satellite communication capability, the RMU1 LITE can transmit data from virtually any location. This helps improve the quality and frequency of data collection, while reducing the need for workers to undertake long, potentially dangerous trips, to remote sites.
- **BUILT TO WITHSTAND THE TOUGHEST CONDITIONS** — Lightning, surge and overvoltage protection and broad operating temperature range (-30°F to +158°F (-22°C to +70°C)).
- **LONG-LIFE BATTERY** — A user-replaceable battery provides up to 10 years of monitoring and data transmission, and helps maximize lightning isolation.

CorView

MOBILTEX CORVIEW: POWERFUL VISUALIZATION AND CONTROL FOR YOUR CP SYSTEM — IN ONE PLATFORM

CorView delivers powerful, secure two-way communication capabilities, data storage and reporting for the entire range of MOBILTEX CorTalk remote monitoring devices.

This unique software solution helps dramatically improve the management and efficiency of your CP monitoring program with capabilities and operational benefits that include:

➤ INTUITIVE INTERFACE DESIGNED FOR EASE-OF-USE

The CorView platform is designed for simplicity. Its thoughtfully engineered UI enables key personnel to quickly and easily access the data repository, reporting functions and remote RMU controls with virtually no training.

➤ AUTOMATED NOTIFICATIONS

Each CorTalk device automates comparisons of current CP performance measurements with programmed thresholds. If any measurements are captured outside of the thresholds, CorView immediately sends alerts to the appropriate personnel to take action and quickly resolve operational issues.

➤ ACCESS ANYWHERE, WITH ANY WEB-ENABLED DEVICE

All data that is transmitted from the RMU devices is stored in the secure MOBILTEX database and can be accessed from any location, providing users instant, comprehensive access to all performance data and activities.

➤ CREATE DETAILED REPORTS, GRAPHS AND MAPS

Technicians and managers can easily view and download CP measurement data, create trending graphs and generate reports. CorView also displays easy-to-read maps that provide near real-time display of system status so technicians can see where CorTalk devices are operating normally, performing interruption activities or experiencing alarm conditions.

➤ REMOTELY CONTROL AND UPDATE IN-FIELD DEVICES

CorView's robust cellular or satellite communication capabilities enable two-way communication with most RMU devices for precise synchronization, timing accuracy and repeatability for rectifier interruption during CIS activities. Technicians can also use the CorView interface to remotely modify device configurations and to apply software updates and eliminate the need for time-consuming manual system updates [**RMU1 LITE one-way comm only*].

➤ NO I.T. OVERHEAD

The CorView platform is entirely hosted and supported by MOBILTEX, all updates and enhancements to the platform are automatic and ongoing.



The RMU1 LITE can transmit measurement data via cellular or satellite networks from any location to the CorView Platform



Forget Manual, Forget Limitations — the RMU1 LITE is engineered for your most challenging locations

RMU1 LITE SPECIFICATIONS

Operating Temperature	-40° to +60° C (-40° to +140° F)
Storage Temperature	-45° to +80° C (-49° to +176° F)
Maximum Altitude	5000 meters above sea level
Humidity	0 to 100% RH non-condensing
Weight	220 grams (0.5 lbs)
Size	80mm x 80mm x 110mm (3.15"x3.15"x4.33")
Enclosure	UV stable, wide temperature polycarbonate
Pollution Degree	1
External Analog Channels	2 potential
Measurement Type	Category 1 (as per CSA C22.2 – 61010)
Analog Ranges (DC & AC True RMS)	Potential: +/-31VDC, 22VAC
AC Rejection on DC Readings	>65dB @ 50/60Hz
Lightning Immunity	Survives multiple 20KV 10mS surges
DC Measurement Accuracy (over operational temperature)	Potential: +/-1% + 1mV
AC Measurement Accuracy (over operational temperature)	Potential: +/-1.25% + 5mV, 20mV floor
Input Impedance	>20 Mohm (potential)
ADC Resolution	16 bits
Temp. Measurement Accuracy	+/-4° C (+/-7° F) over -40° to +60° C (-40° to +140° F)
Battery Life	Typically 10 years based on readings every 14 days and two exception transmissions per month.
Internal Battery Measurement	OK, Warning and Low conditions displayed on CorView
Communications	- Globalstar Simplex Satellite (RMU1S-LITE) - Cellular UMTS B2,5 and LTE B2,4,5,12,13 (RMU1G-LITE)
GPS Receiver	72-channel u-blox M8
Datalogger Storage (Factory Enabled Option)	1 million reading points

PRODUCT COMPARISON

	FEATURES	RMU1 LITE	RMU1
APPLICATIONS	Rectifiers		
	Pipe-to-Soil	✓	✓
	Coupons		✓
	Bonds		✓
	Anodes		✓
	ER Probes		
KEY FEATURES	Interruption		w/INT1
	Alarms	✓	✓
	2-Way Comms		✓
	1-Way Comms	✓	
	Onboard GPS	✓	✓
	Data Logging	✓	✓
	Stray Current		
	Total Channels	2	6 (+3 w/ INT1)
	AC/DC Volts	✓	✓
	Instant-OFF	✓	✓
MEASUREMENT PARAMETERS	AC/DC Amps		✓
	AC/DC Current Density		✓
	Electrical Resistance		w/RMU1ER
	Supply Voltage	✓	✓
	Temperature	✓	✓
	Test Stations	✓	✓
INSTALLATION CONFIGURATION	Bond Box	✓	✓
	NEMA4	✓	✓
	Battery	5-10 years	5-7 years
POWER SUPPLY	Mains		

MOBILTEX®

ABOUT MOBILTEX®

At MOBILTEX, technology is just the beginning. We've been leading the way in remote monitoring for cathodic protection for corrosion prevention on thousands of miles of pipelines throughout North America. That's why corrosion specialists everywhere rely on us in a range of industries.

With our innovative engineering, design and manufacturing, we've created dependable IIoT technology that's built for ease of use and maintaining asset integrity even beyond corrosion. All this comes from thinking like people not machines. We've engineered and proven our technology in the harshest, most challenging of environments time and time again.

Our ready and easily reachable team can take you from initial set up through to ongoing support.

THIS IS MOBILTEX. WE'RE THERE.

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