MOBILTEX

CorTalk® RMU1-ERP1

PERIPHERAL MODULE FOR ELECTRICAL RESISTANCE PROBE MONITORING

CorTalk



REMOTELY CAPTURE CORROSION GROWTH RATE WITH IMPROVED, MODULAR APPROACH

CorTalk ERP1 is an improved peripheral that instantly turns a CorTalk RMU1 Coupon Test Station device into an enhanced, high-precision Electrical Resistance (ER) probe monitoring device.

The ERP1 collects and transmits highly accurate metal loss measurements from ER probes situated near the pipeline surface, as frequently as every hour, via satellite or cellular network. This provides technicians with detailed, near real-time data that is useful in determining the underlying cause of corrosion and measuring changes in corrosion conditions including the effectiveness of repairs, temperature cycle or sudden environmental changes.

THE ERP1 USES THE RMU1 AS THE CONTROL DEVICE, TRANSMITTING THE MEASUREMENTS TO CORVIEW.

The ERP1 is compatible with a wide range of ER probes geometries, including tubular, wire, cylindrical, flush, spiral and strip designs.

In addition to metal loss, which is used to compute Corrosion Rate, the ERP1 can also measure ER Probe potential when a reference electrode is connected, approximating structure-to-soil potential. Paired with an RMU1 monitoring Coupons, this product combination delivers the broadest parameter base for critical CP applications

Combined with the **CorView Cloud Platform**, pipeline operators can implement and control a network of ERP devices to gain deep insight into the performance of the CP system, generate reports and instantly identify areas of concern.

ADVANTAGES OF CORTALK ERP1

- Improved precision and accuracy over the CorTalk RMU1-ER for more reliable ER probe monitoring
- Eliminates separate standalone device costs; one RMU1 host supports up to 3 ERP1 peripherals daisy-chained
- Pipe-to-soil potentials, coupon current densities, and corrosion growth rate captured with one device, with CorView graphing features enhanced for intuitive trending and analysis
- A user-replaceable battery provides up to 10 years of monitoring, data transmission and helps maximize lightning isolation
- Satellite or cellular transmission with cost-effective communication plans
- RDL1 pairing enables fast sampling across all parameters, with ER measurements logged as frequently as every hour

APPLICATIONS OF THE ERP1

Pipelines & Casings	Continuous corrosion rate trending on coated and bare pipeline surfaces.
Below Ground Tanks	Monitor internal and external corrosion rates on tank floors and walls in buried or semi-buried configurations
Tank farms & Storage vessels	Typically CP installed on the floor of Above Grade Tanks (ASTs)
Offshore & Marine	Track corrosion performance on offshore structures and subsea assets in high-salinity, high-activity environments
VCI Optimization	Validate and optimize VCI dosing effectiveness through ongoing metal loss and corrosion rate measurements in vapor-phase environments

ERP1 SPECIFICATIONS

ENVIRONMENTAL:

Operating Temperature	-40° to +60° C (-40° to +140° F)
Lightning Protection	survives multiple 20 kV 10ms surges
Altitude	below 2,000 meter
Humidity	0 to 100% RH non-condensing
Ingress Protection	IP67

POWER | COMMUNICATIONS | DATA:

Battery Life	Typically 10 years based on readings every 7 days on 12x AA field-replaceable batteries
Internal Battery Measurement	OK, Warning and Low conditions displayed on corView
Communications	Iridium SBD Satellite (RMU1I) Cellular UMTS B2,5 and LTE B2,4,5,12,13 (RMU1G)
GPS Receiver	72-channel u-blox M8
Datalogger Storage (Factory Enabled Option)	1 million reading points

Authorized Reseller

PERFORMANCE:

Measurement Channel	2 x Metal loss channels 2 x Probe RTD PT100 Temperature channels (probe dependent) 2 x ON/OFF Probe to soil reading (30VDC 2A)
ERP1 Resolution	0.000001 mils
ERP1 Probe Measurement Accuracy	+/-0.005% ~ +/- 0.03% (Not including probe temperature variation) +/- 0.09% ~ +/-2.5% (depending on probe temperature variation)
Input Impedance	>20 Mohm (potential)
ADC Resolution	16 bits
Sampling & Reporting	6-hour measurement interval / Daily data upload 1-hour measurement interval / 6-hour upload interval Alarm-triggered exception reporting supported. Fast sampling mode supported when used with RDL1

PHYSICAL:

Weight	610 grams (1.34 lbs)
Size	340mm x 73mm x 50mm (13.39"x2.87"x1.97")
Enclosure	NEMA Enclosure Available



READY TO SPEAK TO ONE OF OUR PRODUCT SPECIALISTS?

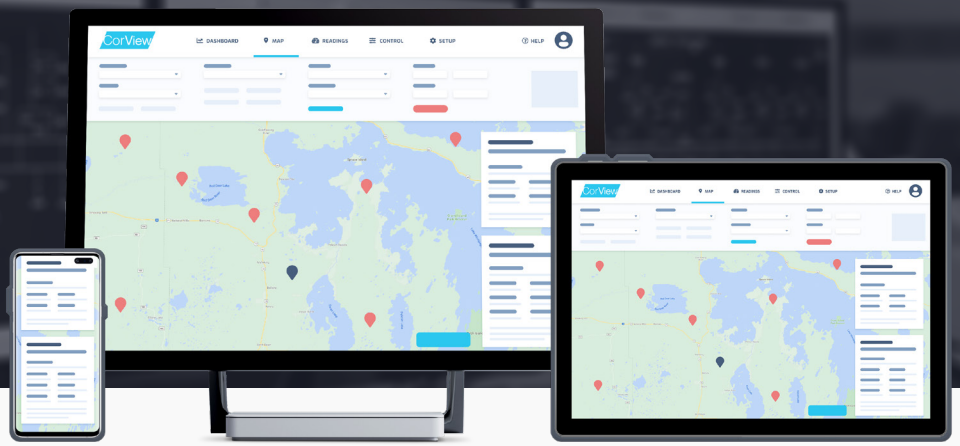
CALL TOLL-FREE IN US OR CANADA:
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CorView

CORVIEW PLATFORM



MOBILTEX CORVIEW:
POWERFUL VISUALIZATION AND CONTROL — 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.

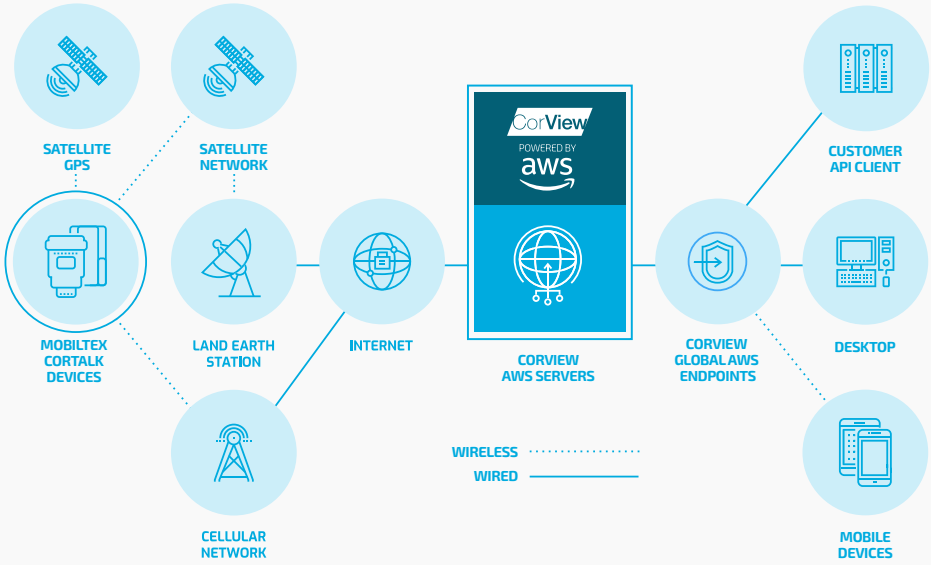
- **INTUITIVE INTERFACE DESIGNED FOR EASE-OF-USE**
  The CorView platform is designed for simplicity. Its thoughtfully engineered UI enables key personnel to quickly and easily access the data repository, reporting functions and remote RMU controls with virtually no training.
- **ACCESS ANYWHERE, WITH 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 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 to remotely modify device configurations and to apply software updates and eliminate the need for time-consuming manual system updates.
- **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.

CLOUD ACCESS

1 **DATA ACQUISITION & CONTROL**

2 **VISUALIZATION & ANALYSIS**

3 **REPORTING, ALARMS & COLLABORATION**



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ABOUT MOBILTEX®

At MOBILTEX, technology is just the beginning. We've been leading the industry in cathodic protection monitoring for corrosion prevention on over one hundred thousand of miles of pipelines throughout North America and around the world. That's why pipeline and corrosion engineers across all industries have come to rely on us.

With our innovative engineering, design and manufacturing, we've created dependable IIoT technology that's built smart, built tough, and built to last. Our success comes from thinking like our customers and we always engineer to effectively solve your unique challenges. We're proud to say we've proven our technology in the harshest, most challenging of environments — time and time again.

But it doesn't stop there, every one of our solutions is backed by our industry leading customer service and support team that's ready to take you from product selection, to the initial set-up, through to our ongoing support.

THIS IS MOBILTEX.
WE'RE THERE.



30+ YEARS
OF CP INNOVATION

>120K MILES
OF PIPELINE MONITORED

~200
MAJOR ORGANIZATIONS
ASSETS PROJECTED

MAGELLAN MIDSTREAM PARTNERS, L.P. · KINDER MORGAN · Dominion Energy · PHILLIPS 66 · Williams · Chevron · bp · ENBRIDGE · MARATHON · Shell · TC Energy



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