

# RMU2

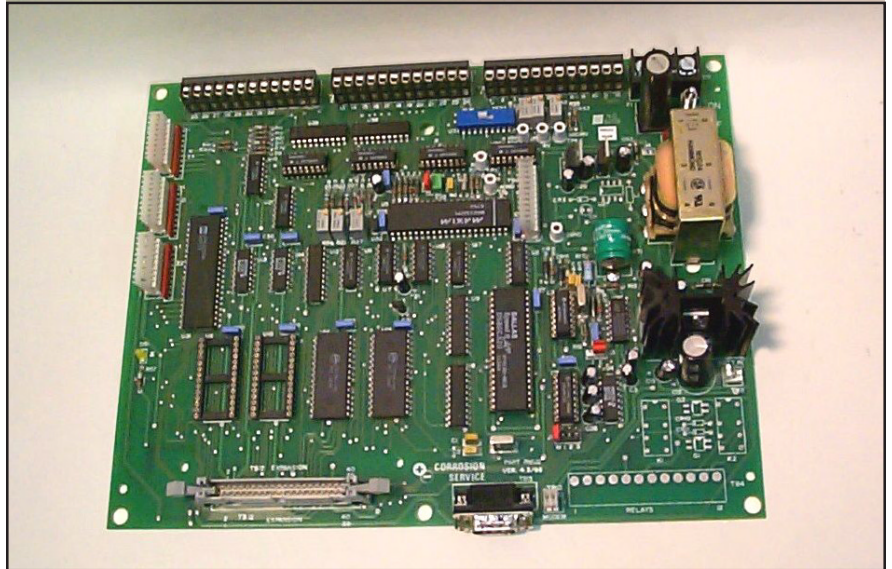
## REMOTE MONITORING UNIT

### For Corrosion Prevention Systems

#### Features / Benefits

- *Continuous monitoring of electrochemical corrosion control systems by Corrosion Service or the owner.*
- *Operating efficiency maximized by early detection and correction of periodic system control problems.*
- *Input channel expansion allows for the continuous monitoring of up to 128 input parameters.*
- *Instant 24 hour access to monitored data is available remotely via telephone.*
- *Security is ensured by three levels of password entry.*
- *Flexibility of our RMS software allows for user-defined scaling and labeling of each parameter.*
- *Easy installation & start up.*
- *Cost effective single board design.*

*\*Other AC configurations also available.*



#### Description

The basic Remote Monitoring Unit (RMU2) is a single board programmable remote controller capable of monitoring 16 analog channels. It provides 2 analog output channels and 24 digital input/output lines.

The RMU2 enables trend storage of all data, remote or local data retrieval, and system control based on HI/LO limit setpoints.

#### Installation

Compact, single board design permits installation in new or existing enclosures. Only 120\* VAC at 1 Amp and telephone line installation is required in addition to wiring for monitored parameters. Cable pairs for each parameter terminate into a screw type plug connector. Operating environment promotes easy, on site calibration and parameter labelling.

#### Communication

Local communication with the RMU2 is accomplished using an RS232 connection and a notebook computer. Our Windows™ based Remote Monitoring Software (RMS) software permits continuous display of on-line operating parameters and was developed specifically for remote monitoring.

Remote access is via the RS232 port (RS485 optionally available) and a modem. Authorized users need only a computer, password, and modem for remote data acquisition and system control.

For additional flexibility, several RMU2's can be networked together to minimize the number and cost of telephone lines. Using our RMS software accesses all connected RMU's with one phone call.

## User Support and Monitoring Service

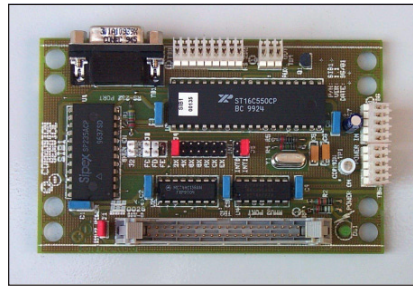
Protection systems generally operate reliably and automatically. Nevertheless, they are active systems which require maintenance in the form of routine monitoring, occasional control adjustments, and minor repairs.

Corrosion Service monitoring systems offer a high level of expert service which can improve process efficiency by keeping production staff focused on production issues.

Corrosion Service System Specialists remotely monitor vital control parameters on a continuous basis, downloading data each week. System malfunctions are detected immediately and reported to the customer by phone and/or fax. Free telephone support is also provided to correct system malfunctions and to answer any system-related questions which may arise.

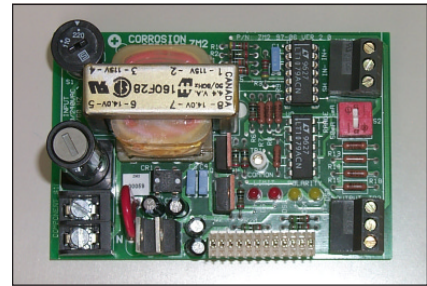
To assist in file keeping, monthly reports are generated and issued quarterly to the customer.

*For additional information about the RMU2, please contact the Remote Monitoring Group at the number listed below.*



The SIB (Serial Interface Board) provides the RMU2 with an extra RS232 type serial port leaving the built in port free for other communications.

**Optional Equipment:** Many optional components are available to provide additional or expanded RMU2 capabilities. Please refer to data sheet No. 3616 or contact us for details.



The ZM2 (Zero Resistance Ammeter) may be added to the RMU2 to measure electrochemical current without introducing unwanted resistance.

## RMU2 TECHNICAL DATA

### Analog Input

The main board accepts up to 16 analog inputs. Each RMU2 can be expanded to monitor up to 128 channels using the ACB2 (4 channel Analog Capture Board). Auto ranging provides the following reading resolutions:

- |     |        |       |        |
|-----|--------|-------|--------|
| [1] | 1.0 mV | up to | 300 mV |
| [2] | 10 mV  | up to | 3 V    |

Higher voltages require external attenuation.

### Control

The two 1mV resolution,  $\pm 2000$  mV digital to analog converter outputs can be controlled via software to perform functions such as set point adjustment and current or voltage limit change.

A sophisticated software control loop can be invoked to control the output of a rectifier based on several input parameters, and user adjustable set points.

### Specifications

**Mass:** <900g (<2 lbs.)

**Board Dimensions:**

216mm H x 279mm W x 76mm D  
(8½" H x 11" W x 3" D)

**Enclosure:**

Available with or without NEMA /CEMA 4X (standard) enclosure.

**Temp. Range:** -40°C to +70°C

**Micro Controller:**

- 8 bit
- CMOS
- 12 MHz clock
- 64K Eprom
- 64K battery backed static RAM
- Battery backed Real Time clock
- Stores up to 25,000 readings

**Power Supply:**

120 V.A.C. at less than 1 Amp  
(Other AC configurations are available on special order)