

# Remote Monitoring Unit



## RMU16 Model

- Remote Status Inquiry by Telephone or Computer
- Automatic Alarm Dial Out with Built-In Voice Annunciation to Eight Telephone Numbers
- Broad Communications Capability, Built-In Modem and Datalogger with Real Time Clock
- Uses Any Communication Software or ASCII Terminal
- Seven Analog Inputs (8-Bit Resolution) Plus Speed Input or Additional Analog
- Direct Interface to Digital Annunciator via BCD Port
- Class I, Div. 1, Grps. C & D, Explosion-Proof Enclosure

### Description

The RMU16 is a powerful component for remote equipment monitoring, control and datalogging.

The RMU16 performs functions such as remote alarm monitoring and processing, start and stop via touch-tone telephone or personal computer, automatic dial out with built-in voice annunciation, data logging, data acquisition, and telecommunications.

The RMU16 features include a real time clock, built-in modem and password protection. The unit can be powered by 10-32 VDC systems and it comes loaded with operating software.

The RMU16 includes eight (8) analog inputs and two (2) relay outputs. Each of the eight (8) inputs accepts 4-20 mA signals such as Murphy's PXMS pressure transducers, RTDT, RTDTX temperature transmitters (**NOTE:** PXMS, RTDT, RTDTX require 24 VDC power supply). One of the analog inputs can be configured to accept a magnetic pickup input for speed monitoring.

The RMU16 accepts BCD inputs, such as those provided by Murphy's MARK III digital annunciator, allowing for remote monitoring of the annunciator sensor inputs.

The RMU16 also provides two (2) form "C" relay outputs for ON/OFF control applications.

### Basic Operation

The RMU16 module allows you to communicate in Data or Voice mode. Both the Data and Voice modes allow access to your equipment at any time via standard touch-tone dial telephones or a personal computer.

When operating the RMU16 in Data mode, an ASCII terminal or computer is used to access various functions. Commands are entered on the keyboard, and response messages are displayed on the monitor.

The commands to access the information are simple 3-letter codes (e.g. INP = input, ALM = alarm, PHO = telephone), generally followed by a fourth letter (e.g. R = report, S = set).

In Voice mode, the RMU16 can be called to inquire into conditions and status. When an alarm condition exists, the RMU16 will automatically call the telephone numbers pre-programmed.

### Applications

- Voice alarming systems
- Remote monitoring upgrade for panels containing Murphy Mark III annunciators
- Remote compressor sites
- Flood control
- Pumps and engines

### Standard Features

#### *User Definable Inputs*

Each of the 4-20 mA analog inputs has programmable alarm and control setpoints. The RMU16 will scale to engineering units when the user enters top of scale and bottom scale values. It accepts a wide range of inputs in any combination. The optional frequency input is to measure RPM. The RMU16 BCD interface is compatible with Murphy's digital annunciators, allowing the RMU16 to monitor 32-48 digital inputs as well.

#### *Control Over Standard Phone!*

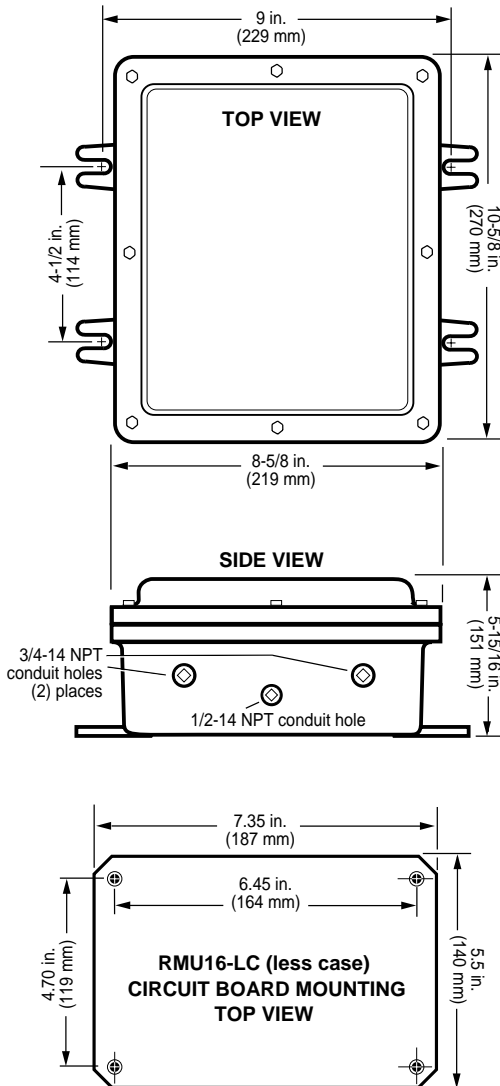
Experience the convenience of inquiry into condition and status from any standard telephone. Control outputs may be turned on or off via touch-tone. Analog values and BCD status are reported in clear digitized speech, allowing the user to perform control functions and check on their effects almost instantaneously.

Data mode allows the user to review I/O, reconfigure the unit remotely, and download datalogger records.

#### *Works with Any ASCII Terminal.*

There is no need for specialized SCADA® or MMI® software. The open protocol allows virtually any communications package to communicate with the unit. The user may simply opt to run Hyper-Terminal® under Windows® to do configuration, control the unit and perform other SCADA® functions.

## Enclosure Dimensions



## Additional Features

- **Security Protection:** 3 levels of password security
- **Input scaling and calibration**
- **X Modem Compressed Data Transfer**
- **Cellular interface via Motorola® cellular connection interface and bag phone**
- **Explosion-proof enclosure for Class I Division 1, Groups C & D**
- **BCD fault interpretation**
- **Data logger functions**
- **Alarm acknowledgement**
- **Remote control**

## Specifications

**Power Input (Operating Voltage):** 10 to 32 VDC.

**Power Consumption:** 9W.

**Enclosure:** 10-3/4 x 9 x 6 in. (273 x 229 x 152 mm).

**Modem Speed:** 2400 bps.

**Analog Inputs:** Eight (8) 8-bit resolution, 4-20 mA.

**MPU Input:** 1-48 Vrms, 0-10 kHz.

**BCD Inputs:** 8-bit, TTL logic level.

**Digital I/O:** Thru Fault-Annunciator (32).

**Relay Outputs:** Two (2), form "C", 8 A @ 250 VAC, 5 A @ 30 VDC.

**Real Time Update:** 2 seconds.

**RJ-11 Ports:** 2 (one passthru for handset).

**Phone Line Protection:** 500 Volts.

**User Configuration Memory:** Non volatile, EEPROM.

**Data Logger Memory:** 2000 records.

**Operating Temperature:** 32-140°F (0 to 60°C).

## Storage Temperature:

-4 to 185°F (-20 to 85°C).

**Humidity:** 5 to 95% non-condensing.

**Shipping Weight:** 22 lb. (10 kg).

**Shipping Dimensions:** 17 x 10 x 9-3/4 in. (431 x 254 x 248 mm).

## How to Order

Specify the model number:

Model Number	Description
<b>RMU16:</b>	RMU16 model (50700076)
<b>RMU16-LC:</b>	RMU16 less case (50700077)
<b>DA15M-36*:</b>	BCD communications cable 3 ft. (1 m) long (50500335)
<b>DA15M-96*:</b>	BCD communications cable 8 ft. (2.43 m) long (50500336)
<b>DA15M-96-EX:</b>	Explosion-proof BCD cable 8 ft. (2.43 m) long (50700093)
<b>00-00-5168:</b>	RS232 communications cable

\*For RMU16-LC or Non-hazardous Weatherproof mounting only.

## Product Compatibility

Model	Power Source
<b>MARK III-BCD</b> annunciator	CD Ignition; 12/24 VDC
<b>RTDT</b> temperature transmitter	24 VDC
<b>RTDTX</b> temperature transmitter	24 VDC
<b>PXMS</b> pressure transmitter	24 VDC

**Magnetic Sensors (Pickup)**

<b>MP3298</b>	3 in. (76 mm) long; 5/8-18 UNF thread size
<b>MP7906</b>	3 in. (76 mm) long; 3/4-16 UNF thread size
<b>MP7905</b>	4-1/2 in. (114 mm) long; 3/4-16 UNF thread

## Warranty

A two-year limited warranty on materials and workmanship is given with this Murphy product. Details are available on request and are packed with each unit.

*In order to consistently bring you the highest quality, full featured products, we reserve the right to change our specifications and designs at any time.*

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