

# RS-33u Recording Telemetry Unit

## Wireless RTU For Above Ground Remote Monitoring



RS-33u monitoring a lift station

Collecting, analyzing and understanding data from networks of recording sites is a challenging task. Telog's recording system, the RS-33u, offers you a versatile, economical and comprehensive solution to keep up with the data acquisition demands of today.

The RS-33u provides real-time monitoring and alarming of instruments and sensors in a system package so flexible it can be customized for each application to provide you with the information you need in a concise, presentable format.

The RS-33u has low power requirements and automatically monitors level, flow, pressure and water quality sensors. Data is forwarded wirelessly to a host computer operating Telog host application software, Telogers for Windows or Telog Enterprise. Data communication may be scheduled frequently (e.g. daily, hourly, every five minutes, etc.) and/or immediately in response to site alarm conditions.

The RS-33u supports multiple sensor interface options including RS-232, RS-485, analog and digital inputs. For example, when connected to an open-channel flowmeter via RS-232, the RTU can interrogate the meter for its most recent level, flow velocity and battery voltage measurements. PLCs, flowmeters, Sondes, etc. are also supported using a generic MODBUS client. The new MODBUS interface can be configured easily within Telog's Enterprise software.

Telog also provides optional sensors that may be directly attached to the RS-33u including ultrasonic and pressure level, water quality Sondes, pH and conductivity, temperature, level switches and a rain gauge.

Wireless communication is supported via packet switched cellular (e.g. 1xRTT or GPRS).

The RTU is powered from a single, 6-volt lantern battery providing an operating life of six months to two years depending on sensor interface and call schedule.

For more information on the RS-33u or other Telog products, call us at **585.742.3000**, email [TelogSales@telog.com](mailto:TelogSales@telog.com), or visit us at [www.telog.com](http://www.telog.com).

### Directly Monitor:

- Popular Open-channel Wastewater Flowmeters
- Pressure Level Sensors
- Ultrasonic Level Sensors
- Water Quality Sensors and Sondes
- MODBUS supported instruments e.g. PLCs, RTUs etc.

### Communicate Via:

- Local Connection
- Cellular
- Land-line Telephone
- Ethernet

### Powered by:

- 120/240 AC with battery backup
- Solar panel with battery backup
- Battery only

### Alarm Notification

### Two Year Battery Life

### Web Application Software

### Supported by

Telog Enterprise  
Telogers for Windows &  
Telog's Data Hosting Service



# RS-33u Specifications

## Recorder

<b>Model</b>	Telog RS-33u
Type	Multi-channel RTU (Recording Telemetry Unit)
<b>Recording</b>	
Sample rate	Programmable from 1/sec up to 8 hours; each channel
Data interval	Programmable from 1/sec up to 8 hours; each channel
<b>Memory</b>	
Size:	270 Kbytes
Storage method	Wrap around (first-in; first-out)
Data capacity	Dynamically allocated to active channels, any combination of:
Analog input	150,000 values
Pulse input	110,000 values
Event input	37,000 values
ComSensor input	55,000 values
<b>Communication:</b>	
Standard:	Standard: 4 pin circular connector rated IP-67 Auto-selected baud rate to 19.2 kbaud Land line telephone Telog M-324 2400 baud modem Auto-dial/Auto-answer FCC and CSA approved
Optional	
Cellular	Internal Telog WM/C embedded 1xRTT modem certified on Sprint & Verizon in USA WM/H HSPA modem certified on Bell in Canada Dual band internal antenna
<b>Inputs</b>	Limited to one ComSensor + one analog + one digital
ComSensor/meter	Selectable RS-232 or RS-485 to 19.2 Kbaud. Protocol determined by meter or sensor
Analog	
Selectable ranges	0-1 VDC, 0-5 VDC, 4-20 ma
Excitation	Pulsed +5 or +12 VDC, (selectable duration)
Resolution	0.025%; 12 bits
Accuracy	±0.1% of full range at 70°F ±50 ppm
Digital (one channel)	
Type	Selectable pulse counter or event recorder
Input	Contact closure or logic driven input
Excitation	5 VDC at 20 μAmps (max)
Pulse width	10 mS minimum
<b>Enclosure</b>	
Size	13" x 11" x 6" (LxWxH)
Rating	NEMA 4x
<b>Environmental</b>	
Temperature	32 to 160°F -22 to +160°F powered externally
Rating	NEMA 4x
<b>Support Software</b>	
S-3PC	Telogers for Windows
S-3EP	Telogers Enterprise
Data transfer unit	IP-67 rated PDA running Palm OS and Telog application program

## Supported Sensors

<b>Pressure Level Sensor</b>	Submersible pressure sensor
Model	Telog PT-3Vu
Ranges	0-5 PSI thru 0-300 PSI
Accuracy	±0.25% of full scale
Construction	316 stainless steel
Vent	In-line dry box with user replaceable desiccant
<b>Ultrasonic Level Sensor</b>	Ultrasonic transmitter (ComSensor)
Model	Massa M300/95
Frequency	95 KHz
Range	One foot to 13 feet
Beam Angle	8° conical
Accuracy	±0.25% over any range segment exceeding 12" (homogeneous environment)
<b>Temperature Sensor</b>	
Model	AT-3u ambient temperature sensor
Range	-4 to +160°F
Accuracy	±0.3°F
Size	Stainless Steel probe (4" x 1/4") with 10 feet of cable

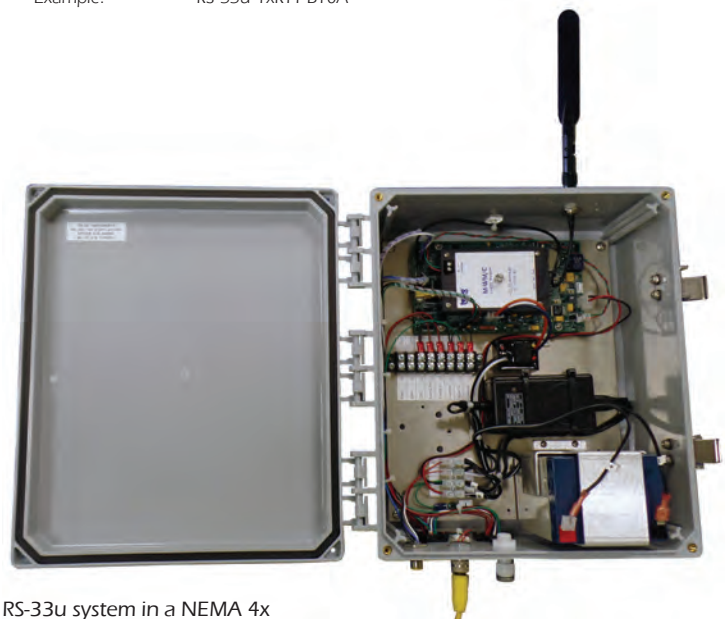
## Specifying an RS-33u Telog Recording Telemetry Unit

- Select a Communication Option
 

T24	2400-baud telephone Modem
1xRTT	Cellular Packet Modem
HSPA	High Speed Packet Access
eNET	Ethernet Communication Module
SSR	Spread spectrum radio modem
- Specify a Power Source
 

B10A	10-amp-hour alkaline battery pack
B10L	10 amp-hour lithium battery pack
ACP	120 VAC-15VDC plug-in power supply
AC12	120/240 VAC to 12 VDC panel mount power supply
AC12B4	AC to 12 VDC with battery backup
AC24	120/240 VAC to 24 VDC panel mount power supply
SS/4	5 Watt solar power with 4 amp-hour rechargeable battery
- Specify a Product Model Number
 

RS-33u-Communication-Power	
Example:	RS-33u-1xRTT-B10A



RS-33u system in a NEMA 4x



## Telog Instruments, Inc.

830 Canning Parkway, Victor, NY 14564-8940, USA  
 Phone: 585.742.3000 • Fax: 585.742.3006  
 E-mail: TelogSales@telog.com • www.telog.com

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