# RFPROCESS101A

## CURRENT RECORDER & WIRELESS TRANSMITTER

### Features

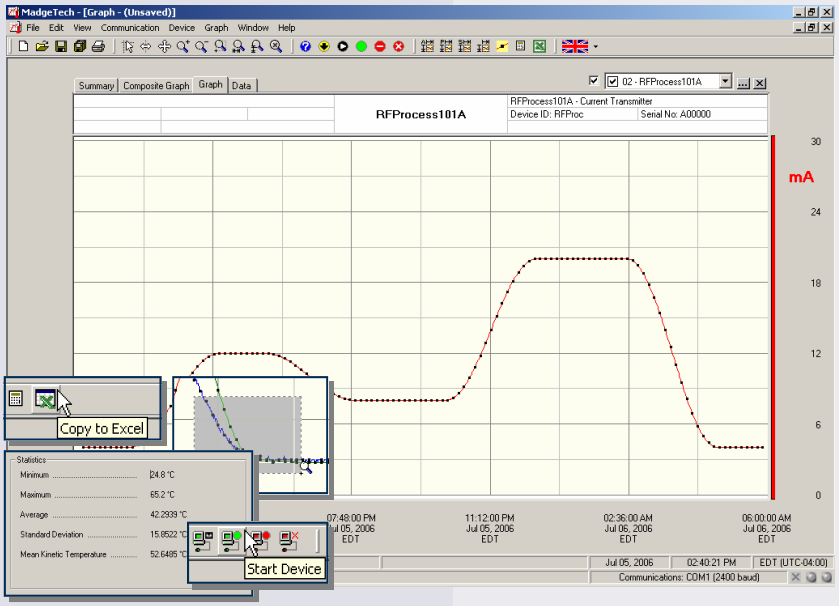
- Multiple transmitter configurations
- Memory wrap around
- Software configurable
- Real-time operation
- Programmable start time
- Miniature size
- User-friendly
- N.I.S.T. traceable

### Applications

- 4 to 20 mA recording
- pH recording
- Low level signal monitoring
- Battery studies
- Photovoltaic studies
- Biological sensor monitoring
- Replace costly strip chart recorders
- Environmental studies
- Remote data logging


The RFProcess101A is a battery powered current recorder and wireless transmitter. This is an all-in-one compact, portable, easy to use device that will measure and record up to 8,191 measurements. The RFProcess101A combines the features from the standard product line and adds the convenience of a wireless transmitter. When enabled, the wireless transmitter will transmit readings back to the host computer where the data can be analyzed in real time. These readings are also logged to the device's memory for added data security. The convenient slide switch allows the transmitter to be turned on or off without affecting the operation of the device.

The device can be started, stopped and configured directly from your computer. Its small size allows it to fit almost anywhere. In addition to the wireless communications, the RFProcess101A makes data retrieval quick and easy. Simply plug the device into an empty COM port and our user-friendly software will handle the rest.




**MadgeTech Data Recorder Software** displays current data in an easy to use graph.

The Windows®-based software package allows the user to effortlessly collect, display and analyze data. A variety of powerful tools allow you to examine, export, and print professional looking data with just a click of the mouse.

Click MadgeTech Software for more information or to download the software.

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## RFPROCESS101A SPECIFICATIONS*

| | ±1mA | ±25mA | ±100mA |
|---|---|---|---|
| **Nominal Range:** | | | |
| **Measurement Range:** | ±1.25mA | ±30mA | ±120mA |
| **+/- Input Voltage Range:** | 0 to 2.5V | 0 to 2.5V | 0 to 2.5V |
| **Resolution:** | 0.05µA | 1µA | 5µA |
| **Calibrated Accuracy:** | ±0.5%FSR | ±0.1%FSR | ±0.1%FSR |
| **Input Impedance:** | 50Ω | 10Ω | 2Ω |
| **Overload Protection:** | ±20mA | ±100mA | ±125mA |

**Input Connection:** Removable screw terminal

**Analog Conversion Time:** 133ms

**Frequency Rejection:** 60Hz

**Temperature Coefficient:** < 100ppm/°C; < 50ppm/°C typical

**Specified Accuracy Range:** Nominal range @ 25°C

**Engineering Units:** User may define units up to 10 characters in length. This value is stored within the device.

**Scale Factor:** User may program any desired scaling factor from ±1.000E-31 to ±9.999E+31. The scaling factor is stored within the device.

**Memory:** 8,191 readings; software configurable memory wrap

**Reading Interval:** 1 reading every 30 seconds to 1 every 12 hours

**Calibration:** Digital calibration through software

**Data Format:** Date and time stamped A, mA, µA, engineering units specified through software

**Time Accuracy:** ±1 minute/month (at 20 to 30°C)

**Computer Interface:** PC serial or RS232C COM (interface cable required); 57,600 baud

**RF Carrier Frequency:** 418 ± 0.075MHz

**RF Baud Rate:** 4,800 baud

**Output Power:** <0dBm typical (<1mW)

**Receiver Sensitivity (RFC101A):** -90dBm typical

**Range:** Line-of-sight: up to 120 ft., Urban: up to 40 ft.

**Approvals:** US (FCC), CA (IC)

**Power:** 3.6V lithium battery included (LTC-7PN)

**Battery Life:** 1 year typical (1 min reading rate @ 25 °C)

**Software:** Windows 95/98/ME/NT/2000/XP based software

**Operating Environment:** -30 °C to +70 °C, 0 to 95 %RH non-condensing

**Dimensions:** 1.7" x 2.7" x 0.8" (42mm x 68mm x 20mm)

**Weight:** 2 oz (60 g)

BATTERY WARNING: FIRE, EXPLOSION, AND SEVERE BURN HAZARD.
DO NOT RECHARGE, DISASSEMBLE, HEAT ABOVE 212°F,
INCINERATE OR EXPOSE CONTENTS TO WATER.

## SOFTWARE FEATURES

**Multiple Graphs:** Simultaneously analyze data from several units or deployments; easily switch to a single data series

**Graphical Cursor:** One click displays readings by time, value, parameter or sample number

**Data Table:** Instantly access tabular view for detailed dates, times, values, and annotations

**Scaling Options:** Autoscale function fits data to the screen, or allows user to manually enter their own values

**Formatting Options:** Change colors, line styles, plotting options, show or hide channels quickly

**Statistics:** Calculate averages, min, max, standard deviation, and mean kinetic temperature with the touch of a button

**Export Data:** Export data in a variety of common formats, or switch to Excel® with a single click

**Calibration:** Automatically calculate and store calibration parameters

**Logger Configuration:** Easy set up and launch of data loggers with immediate or delayed start, preferred sample rate, and device ID

**Communications:** Automatically sets up communications port, or lets user select configuration

*SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.
SPECIFIC WARRANTY AND REMEDY LIMITATIONS APPLY.
CALL 1-603-456-2011 OR GO TO WWW.MADGETECH.COM FOR DETAILS.

## ORDERING INFORMATION

| Model | Description | Price (U.S.) |
|---|---|---|
| **RFPROCESS101A-1** | ±1mA Current Recorder and Wireless Transmitter | $249.00 |
| **RFPROCESS101A-25** | ±25mA Current Recorder and Wireless Transmitter | $249.00 |
| **RFPROCESS101A-100** | ±100mA Current Recorder and Wireless Transmitter | $249.00 |
| **RFC101A** | Software, manual, wireless receiver, power supply and RS232 interface cable | $199.00 |
| **IFC110** | Software, manual and RS232 interface cable | $99.00 |
| **NIST** | N.I.S.T. Calibration Certificate | Call for Pricing |
| **LTC-7PN** | Replacement battery for RFProcess101A | $10.00 |

For Quantity Discounts call 603-456-2011 or email sales@madgetech.com

### ASK ABOUT OUR OTHER DATA RECORDERS

| | |
|---|---|
| Temperature | Pulse/Event/State |
| Humidity | Low Level Current |
| Pressure | Low Level Voltage |
| pH | RF Transmitters |
| Level | Intrinsically Safe |
| Shock | Spectral Vibration |

MADGETECH
WE BUILD DATA LOGGERS