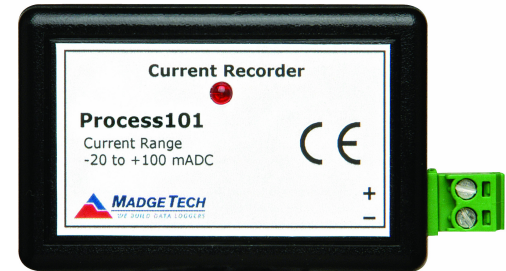


### Features

- Programmable engineering units
- Real-time operation
- Programmable start time
- CE compliant
- Reusable
- Compact
- User-friendly
- Low cost

### Applications

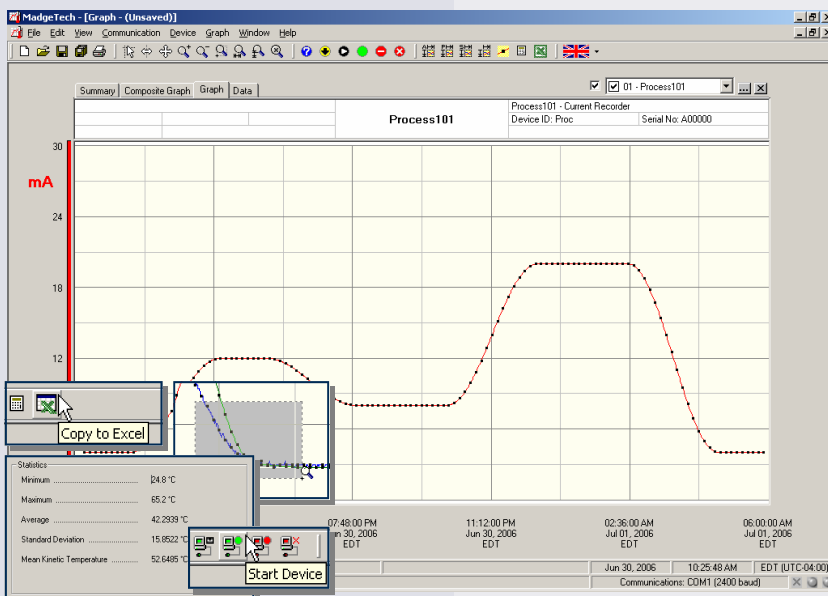
- 4 to 20 mA recording
- pH recording
- Low level signal monitoring
- Photovoltaic studies
- Battery studies
- Factory process control
- Biological sensor monitoring
- Medical and Pharmaceutical
- Environmental studies
- Research and development



The Process101 is engineered for accuracy and flexibility unequaled in the 4-20mA loop sensor and control industry. It can be inserted almost anywhere because it adds very little resistance to the loop (10Ω typical). Since it operates with an internal battery (user replaceable), ground loop errors can be avoided.

The Process101 can measure currents that are slightly negative, allowing for other uses. With 16 bits of resolution, it is ideal for accurately measuring battery currents, solar cell currents and other current sources. The device can measure and record up to 32,767 readings in non-volatile memory, retaining valuable data even if the battery should become discharged.

Additionally, customized engineering units can be defined to map the measured data to almost any unit imaginable. For example, a 4-20mA flow meter might exert 4mA current for 0 liters of water and 20mA current for 5 liters of water. Using the Engineering Units in the device, the logger can be set up to natively display the data in liters rather than milliamps — a useful feature for presentations!



### 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.

## PROCESS101 SPECIFICATIONS\*

<b>Input Connection:</b> Removable screw terminal	<b>Memory:</b> 32,767 readings; software configurable memory wrap
<b>Measurement Range:</b> -20 to +120mA	<b>Reading Interval:</b> 1 reading every second to 1 every 12 hours
<b>Current Resolution:</b> 10µA	<b>Real Time Recording:</b> May be used with PC to monitor and record data in real time
<b>Calibrated Accuracy:</b> ±0.1%FSR	<b>Calibration:</b> Digital calibration through software
<b>Input Impedance:</b> 10Ω	<b>Calibration Date:</b> Automatically recorded within device
<b>Analog Conversion Time:</b> 133ms nominal	<b>Power:</b> 3.6V lithium battery included
<b>Frequency Rejection:</b> 60Hz	<b>User Replaceable Battery:</b> 1 year typical at 25°C
<b>Temperature Coefficient:</b> < 100 ppm/°C; < 50 ppm/°C typical	<b>Data Format:</b> Date and time stamped A, mA, µA, engineering units specified through software
<b>Overload Protection:</b> ±125mA for 10 seconds	<b>Time Accuracy:</b> ±1 minute/month (at 20°C, RS232 cable not in use)
<b>Specified Accuracy Range:</b> Nominal range @ 25°C	<b>Computer Interface:</b> PC serial or USB (interface cable required); 2,400 baud
<b>Engineering Units:</b> User may define units up to 10 characters in length. This value is stored within the device.	<b>Software:</b> Windows 95/98/ME/NT/2000/XP based software
<b>Scale Factor:</b> User may program any desired scaling factor from ±1.000E-31 to ±9.999E+31. The scaling factor is stored within the device.	<b>Operating Environment:</b> -40 to +80°C, 0 to 95%RH non-condensing
<b>Start Time:</b> Software programmable start time and date, up to six months in advance	<b>Dimensions:</b> 1.4" x 2.5" x 0.6" (36mm x 64mm x 16mm)
	<b>Weight:</b> 0.9 oz (24 g)
	<b>Materials:</b> ABS plastic
	<b>Approvals:</b> CE

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

## SOFTWARE FEATURES

<b>Multiple Graphs:</b> Simultaneously analyze data from several units or deployments; easily switch to a single data series	<b>Statistics:</b> Calculate averages, min, max, standard deviation, and mean kinetic temperature with the touch of a button
<b>Real-Time Recording:</b> Collect and display data in real-time while continuing to log	<b>Export Data:</b> Export data in a variety of common formats, or switch to Excel® with a single click
<b>Graphical Cursor:</b> One click displays readings by time, value, parameter or sample number	<b>Calibration:</b> Automatically calculate and store calibration parameters
<b>Data Table:</b> Instantly access tabular view for detailed dates, times, values, and annotations	<b>Logger Configuration:</b> Easy set up and launch of data loggers with immediate or delayed start, preferred sample rate, and device ID
<b>Scaling Options:</b> Autoscale function fits data to the screen, or allows user to manually enter their own values	<b>Communications:</b> Automatically sets up communications port, or lets user select configuration
<b>Formatting Options:</b> Change colors, line styles, plotting options, show or hide channels quickly	<b>Printing:</b> Automatically print graphical or tabular data

\*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.)
PROCESS101	Current Recorder	\$199.00
IFC110	Software, manual and RS232 interface cable	\$99.00
IFC200	Software, manual and USB interface cable	\$119.00
NIST	N.I.S.T. Calibration Certificate	Call for Pricing
LTC-7PN	Replacement battery for Process101	\$10.00

For Quantity Discounts call 603-456-2011 or email [sales@madgetech.com](mailto: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

