

### Features

- Up to 100Hz input
- User programmable time bins
- Programmable engineering units
- Interfaces to pulse output flow meters and contact closures
- Real time operation
- Miniature size
- User-friendly
- Reusable
- Low cost

### Applications

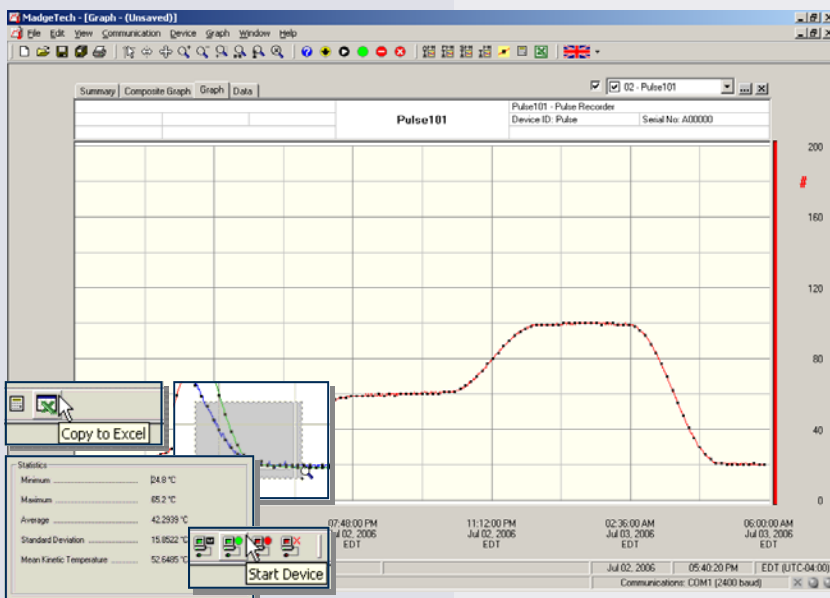
- Remote monitoring of contact closures
- Remote counting and totalizing
- Flow rate recording
- Gas and water metering
- Traffic studies
- Frequency recording
- Speedometer/rotational speed indicator



The Pulse101 is a miniature, low-cost recording device which senses pulse inputs or contact closures from external sources such as transducers and/or pulse initiators. It can collect as many as 100 pulses per second and store up to 16,383 totalized pulse counts in its non-volatile memory. Start and stop the device directly from a computer and its small size allows it to fit almost anywhere.

A common application for the Pulse101 is to measure the flow rate or total volume of a pipeline. With programmable engineering units available, the user has the ability to scale the data collected into useable units, such as gallons per minute. This unique option enables the user to easily linearize and scale most any transducer that provides a pulse or contact closure output to the user required units.

The MadgeTech software will effortlessly show statistical information based upon the type of unit stored in the device. If additional analysis is necessary, one click of a button will export the data into an MS Excel® spreadsheet for further analysis.



### MadgeTech Data Recorder Software displays pulse 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.

## PULSE101 SPECIFICATIONS\*

<b>Input Connection:</b> Removable screw terminal	<b>Real Time Recording:</b> May be used with PC to monitor and record data in real time.
<b>Maximum Pulse Rate:</b> 100Hz (10 ms)	<b>Start Modes:</b> Software programmable immediate start or delay start up to six months in advance.
<b>Input Range:</b> 0 to 12VDC continuous; (0 to 30VDC peak)	<b>Memory:</b> 16,383 readings; software configurable memory wrap
<b>Input Low:</b> < 0.4 V	<b>Reading Rate:</b> 1 reading every second to 1 every 12 hours
<b>Input High:</b> > 2.7 V	<b>Visual Indicator:</b> LED flashes at selected reading rate.
<b>Internal Weak Pull-Up:</b> <500µA	<b>Battery Type:</b> 3.6V lithium battery included; <b>user replaceable</b>
<b>Input Impedance:</b> >1 kΩ	<b>Battery Life:</b> 1 year typical
<b>Recommended Duty Cycle</b> for inputs greater than 12VDC (over 1 min. interval):	<b>Data Format:</b> Date and time stamped V, mV, µV, user defined engineering units.
18V: <50%	<b>Time Accuracy:</b> ±1 minute/month at 20 °C (RS232 cable not in use)
24V: <25%	<b>Computer Interface:</b> PC serial or USB (interface cable required); 2,400 baud
30V: <10%	<b>Software:</b> XP SP3/Vista/Windows 7
<b>Minimum Pulse Width/ Contact Closure Time:</b> 1 millisecond	<b>Operating Environment:</b> -40 to +80°C, 0 to 95%RH non-condensing
<b>Engineering Units:</b> Software programmable. User may program any desired units up to 10 characters. Value is stored in device.	<b>Dimensions:</b> 1.4" x 2.5" x 0.6" (36mm x 64mm x 16mm)
<b>Scale Factor:</b> Software programmable. User may program any desired scaling factor from ±1.0000E-31 to ±9.9999E+31. The factor is stored in the device.	<b>Weight:</b> 0.9 oz (24 g)
<b>Offset Value:</b> Software Programmable. User may program any desired offset value from ±1.0000E-31 to ±9.9999E+31. The factor is stored in the device.	<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>Graphical Cursor:</b> One click displays readings by time, value, parameter or sample number	<b>Export Data:</b> Export data in a variety of common formats, or switch to Excel® with a single click
<b>Data Table:</b> Instantly access tabular view for detailed dates, times, values, and annotations	<b>Calibration:</b> Automatically calculate and store calibration parameters
<b>Scaling Options:</b> Autoscale function fits data to the screen, or allows user to manually enter their own values	<b>Logger Configuration:</b> Easy set up and launch of data loggers with immediate or delayed start, preferred sample rate, and device ID
<b>Formatting Options:</b> Change colors, line styles, plotting options, show or hide channels quickly	<b>Communications:</b> 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

<u>Model</u>	<u>Description</u>	<u>Price (U.S.)</u>
PULSE101	Pulse Recorder	\$99.00
IFC110	Software, manual and RS232 interface cable	\$99.00
IFC200	Software, manual and USB interface cable	\$119.00
LTC-7PN	Replacement battery for Pulse101	\$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
LCD Display	



DOC-1073009-00 REV E 2010.06.28