PULSE110
PULSE DATA LOGGER

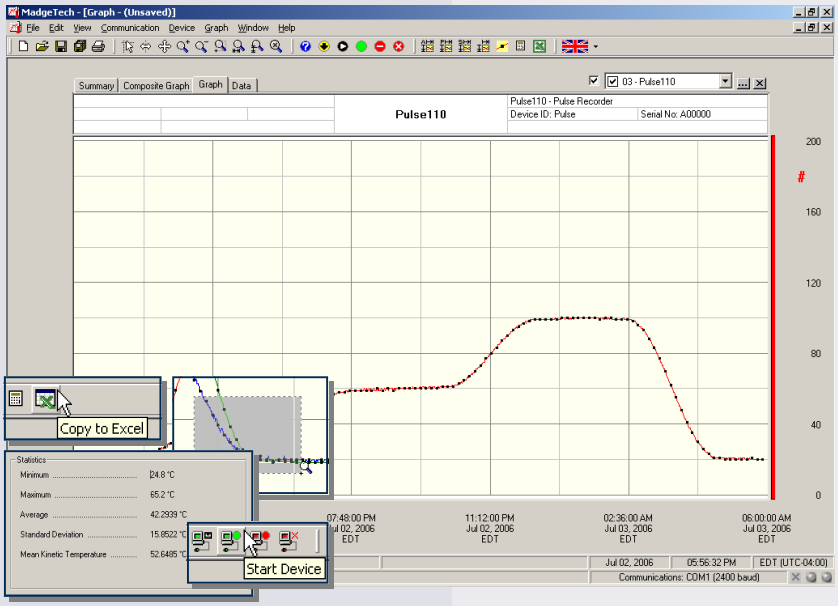
Features

- High speed download
- Miniature size
- Reusable
- Real-time operation
- Programmable engineering units
- Interfaces to pulse output flow meters and contact closures
- User-friendly
- Low cost

Applications

- Remote counting and totalizing
- Remote monitoring of contact closures
- Flow rate recording
- Gas and water metering
- Frequency recording
- Traffic studies
- Speedometer/rotational speed indicators
- Replace costly strip chart recorders

The Pulse110 is a miniature, low-cost, recording device which senses pulse inputs or contact closures from external sources such as transducers and/or pulse initiators and transforms them into usable engineering units for the specified time period. The device can store up to 16,383 readings. In addition, the Pulse110 allows the user to store user defined units such as gallons/min in the device as well as scale factors and offset values. This enables the user to easily scale any transducer that provides a pulse or contact closure output to the user required units. Once activated the Pulse110 senses and records the number of pulses/contact closures that occur over the user selected period. The device's real-time clock ensures that all data is time and date stamped. The storage medium is non-volatile solid state memory, providing maximum data security even if the battery becomes discharged. The device can be started and stopped directly from your computer and its small size allows it to fit almost anywhere. The Pulse110 makes data retrieval quick and easy. Simply plug it into an empty COM port and our user-friendly software does the rest.



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.

PULSE110 SPECIFICATIONS*

Input Connection: Removable screw terminal

Maximum Pulse Rate: 100Hz (10 ms);
Up to 1000 Hz in some applications

Input Range: 0 to 30V

Input Low: <0.4V

Input High: >2.7V

Internal Weak Pull-Up: <500µA

Input Impedance: >1kΩ

Recommended Duty Cycle for inputs greater than 12VDC (over 1 min. interval):
18V: <50%
24V: <25%
30V: <10%

Minimum Pulse Width/ Contact Closure Time: 4 ms

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.

Offset Value: User may program any desired offset value from ±1.000E-31 to ±9.999E+31. The scaling factor is stored within the device.

Memory: 16,383 readings; software configurable memory wrap

Reading Rate: 1 reading every second to 1 every 12 hours

Start Modes: Software programmable immediate start or delay start up to six months in advance

Real Time Recording: May be used with PC to monitor and record data in real time.

Visual Indicator: LED flashes at selected reading rate.

Battery Type: 3.6V lithium battery, included; **user replaceable**

Battery Life: At 15 min. reading rate @ 25°C:
Up to 1 year (25 Hz input, 10% duty cycle)
Up to 5 years (< 1Hz input, 1% duty cycle)
Up to 10 years (< 0.1 Hz input, 0.1% duty cycle)

Data Format: Date and time stamped pulse count

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

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

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

Operating Environment: -40 to +80 °C, 0 to 95%RH non-condensing

Dimensions: 1.7" x 2.7" x 0.8" (44mm x 69mm x 21mm)

Weight: 1.1 oz (30 g)

Approvals: CE

BATTERY WARNING: FIRE, EXPLOSION, AND SEVERE BURN HAZARD. DO NOT RECHARGE, DISASSEMBLE, HEAT ABOVE 212ºF, 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.

ORDERING INFORMATION

Model	Description	_____
PULSE110	Pulse Recorder with 10 year battery Life	
IFC110	Software, manual and RS232 interface cable	
IFC200	Software, manual and USB interface cable	
LTC-7PN	Replacement battery for Pulse110	

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	

MADGETECH
WE BUILD DATA LOGGERS