



MONARCH INSTRUMENT

Innovation in Instrumentation

DataChart® Pulse101

Miniature Pulse Data Logger

Features

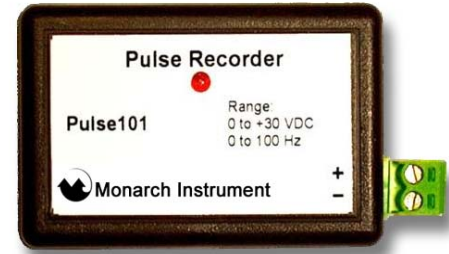
- Counts Pulses
- Programmable Engineering Units
- Programmable Scale Factor
- Programmable Offset Value
- Memory: 16,383 Readings
- Memory Wrap Around
- Reusable
- Miniature Size
- Interfaces to Tipping Bucket Rain Gauges or Pulse output flow meters
- No Programming Experience Necessary
- Real Time Operation
- Low Cost
- Quick Setup
- Record Keeping Simplified

Applications

- Remote monitoring of contact closures
- Remote counting and totalizing
- Event Recording
- Rainfall and Flow Rate Recording
- Gas and Water Metering
- Status or State Recording
- Traffic Studies
- Frequency Recording
- Replace Costly Strip Chart Recorders

Description

The Pulse101 is a low-cost recording device that will sense a pulse input or contact closure from external sources such as transducers or pulse initiators (gas, water, and electric meters) and transforms those inputs into engineering units. In addition, the Pulse101 allows the user to store user defined units such as gallons/min into the device as well as scale factors and offset values. This enables the user to easily linearize and scale any transducer that provides a pulse or contact closure output to any user required units automatically.



Once activated, the Pulse101 senses and records the number of pulses/contact closures that occur within adjacent "time bin" periods. The bin period is selectable from 2 seconds to over 24 hours. At the end of each bin period, the total number of pulses/counts is recorded. The Pulse101 then starts another bin period and continues until either the memory is full or the test period has ended. Its real time clock ensures that all data is time and date stamped. This is ideal for recording events. The storage medium is non-volatile solid state memory, providing maximum data security even if the battery becomes discharged. Its small size allows it to fit almost anywhere. Data retrieval is simple. Plug it into an empty com port and our easy to use software does the rest.



Specifications

Maximum Pulse Rate: 100 per second

Minimum Pulse Width/Contact Closure Time: 1 millisecond

Input Signal: TTL, Internal pullup, +30 Volts Max

Input Connection: Removable screw terminal

Input Impedance: >1Kohm

Recording Interval: 30/minute to 2/day selectable in software.

Memory Wrap Around: Selectable in software.

Engineering Units: Software programmable.

User may program any desired units up to 10 characters in length. This value is stored within the device.

Scale Factor: Software programmable. User may program any desired scaling factor from $\pm 1.000E-31$ to $\pm 9.9999E+31$. The scaling factor is stored within the device.

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

Operational Indicator: LED flashes at selected reading rate.

Memory: 16,383 readings max.

User-Replaceable Battery: 2 years typical

Time Accuracy: ± 1 minute per month at 20°C when RS232 not in use.

Data Format: Date and Time stamped, counts or other engineering units programmable through software.

Weight: 1 oz. (30g)

Computer Interface: RS232C Serial Port.

Software: Windows®95/98/NT/2000/XP based software for complete control and operation.

Operating Environment: -40°C to +80°C, 5% to 95% RH (non-condensing).

Dimensions: 0.6" x 1.4" x 2.5" (16mm x 35mm x 64mm)

Material: ABS Plastic

Software Features

The software used to operate the Pulse101 requires no programming skills, enables users to effortlessly select reading rate, user ID and initiate the start of data collection within moments after user connects hardware. After retrieving the data, it may be viewed instantly in graphical or tabular form.

Zoom In/Out: Use mouse to click and drag to select area for zooming in or out.

Statistics: min, max, mean, standard deviation

Cursor: Use mouse to click on graph to obtain specific reading information.

Real Time Operation: Convert PC into strip chart recorder for real time data collection.

Annotating Data: All data points may be easily annotated.

Printing: Automatic printing of data in graphical or tabular form

Units: Pulse count or user specified engineering units.

User ID: Programmable through software and stored within device.

AutoScale: Autoscale function may be enabled or disabled by user.

Calibration: Automatic calibration in software and calibration parameters stored within device

Exporting Data: All data can be directly exported to Microsoft Excel® or to text format.

Graph Grid Size: Many options for grid size available.

ORDERING INFORMATION

Item No.	Model	Description
5399-0701	Pulse101	Miniature Pulse Data Logger
5399-9901	IFC101	Interface Cable, Software, Manual
5399-9999	N.I.S.T. Cert.	N.I.S.T. Calibration Certificate

Ask About Our Other Data Loggers

Temperature	4.0 to 20.0 mA
Humidity	Pulse/Counter
Pressure	Submersible
pH	Level
Shock/Vibration	Multi-Parameter
Voltage	Intrinsically Safe
RF Transmitters	

