



MONARCH INSTRUMENT

Innovation in Instrumentation

DataChart® Process101

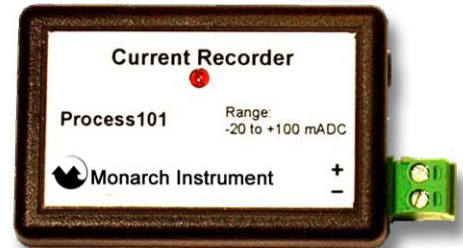
Low Level Current Data Logger

Features

- -20 to +100mA Input
- 16 Bit Resolution
- Memory Size: 32,767 Readings
- Programmable Engineering Units
- Programmable Scale Factor
- Programmable Offset Value
- Memory Wrap Around
- Reusable
- Miniature Size
- User Calibration through Software
- No Programming Experience Necessary
- Real Time Operation
- Low Cost
- Quick Setup
- Record Keeping Simplified
- Engineering Units can display instrument values.

Applications

- 4-20mA Recording
- pH Recording
- Remote Monitoring of Low Level Signals
- Battery Studies
- Photovoltaic Studies
- Biological Sensor Monitoring
- Environmental Studies
- Replace Costly Strip Recorders



Description

The Process101 is a low cost, high resolution, miniature battery powered, stand-alone data logger used for automatically recording current between -20.000 and 100.000 mA. The Process101 uses a 16-bit ADC to achieve a resolution of 10mA. In addition, the Process101 allows the user to store engineering units into the device as well as scale factors and offset values. This enables the user to easily linearize and scale any meter that provides an analog output automatically. This all-in-one compact, portable, easy to use device will measure and record up to 32,767 current measurements. The Process101 is a major leap forward in both size and performance. Its 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. 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

Current Range: -20 to 100mA

Calibrated Current Accuracy: $\pm 0.1\%$ of FSR at calibrated temperature.

Input Connection: Removable Screw Terminal

Input Impedance: 10 Ohm

ADC Resolution: 16 Bits

Current Calibration: Digital calibration is available in software.

N.I.S.T. Traceable: N.I.S.T. certificates available

Calibration Date: Automatically recorded within device to alert user when calibration is required.

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 $\pm 1.000E+99$ to $\pm 1.000E-99$. The scaling factor is stored within the device.

Offset Value: Software programmable. User may program any desired offset value from $\pm 1.000E+99$ to $\pm 1.000E-99$. This offset value is stored within the device.

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

Operational Indicator: Green LED flashes at selected reading rate.

Memory: 32,767 voltage readings max.

User-Replaceable Battery: 1 year typical.

Time Accuracy: ± 1 min/month at 20°C

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

Shock resistance: Drop proof to 5'.

Weight: 1.5 oz. (40g)

Computer Interface: RS232 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: 1.4"H x 3.6"L x 0.6"D (36mm x 92mm x 16mm)

Material: ABS Plastic

Software Features

The software used to operate the Process101 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: Current 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: The grid size is user selectable.

ORDERING INFORMATION

Item No.	Model	Description
5399-0502	Process101	Low Level DC Current 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	

Visit Monarch Instrument on the web at www.monarchinstrument.com

Monarch Instrument 15 Columbia Drive Amherst, NH 03031 USA

Tel:603-883-3390 Fax:603-886-3300 e-mail: sales@monarchinstrument.com

