



**MONARCH INSTRUMENT**

*Innovation in Instrumentation*

# DataChart® OctProcess

## 8 Channel Low Level Current Data Logger

### Features

- 8 Current Inputs
- 16 Bit Resolution
- Memory Size: 16,383 Readings per Channel.
- Programmable Engineering Units
- Programmable Scale Factor
- Programmable Offset Value
- Memory Wrap Around
- Reusable
- Rugged
- User Calibration through Software
- No Programming Experience Necessary
- Real Time Operation
- Low Cost
- Quick Setup
- Record Keeping Simplified

### Applications

- 4.0 to 20.0 mA Recording
- pH Recording
- Remote Monitoring of Low Level Signals
- Battery Studies
- Photovoltaic Studies
- Biological Sensor Monitoring
- Environmental Studies
- Replace Costly Strip Recorders



### Description

The OctProcess is a low cost, high resolution, battery powered, stand-alone data logger used for automatically recording current between -20.000 and 100.000mA. The OctProcess uses a 16 bit ADC to achieve a resolution of 0.01mA. The rugged OctProcess is fabricated from anodized aluminum block. In addition, the OctProcess allows the user to store user defined 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 16,383 current measurements per channel. The OctProcess 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.



Roll #	Date	Time	Current	Units	Acceleration
1	Dec 02, 2002	5:38:06 PM	26.24 mA	mA	
2	Dec 02, 2002	5:38:07 PM	26.24 mA	mA	
3	Dec 02, 2002	5:38:08 PM	26.24 mA	mA	
4	Dec 02, 2002	5:38:09 PM	26.24 mA	mA	
5	Dec 02, 2002	5:38:10 PM	26.24 mA	mA	
6	Dec 02, 2002	5:38:11 PM	26.24 mA	mA	
7	Dec 02, 2002	5:38:12 PM	26.24 mA	mA	
8	Dec 02, 2002	5:38:13 PM	26.24 mA	mA	
9	Dec 02, 2002	5:38:14 PM	26.24 mA	mA	
10	Dec 02, 2002	5:38:15 PM	26.24 mA	mA	
11	Dec 02, 2002	5:38:16 PM	26.24 mA	mA	
12	Dec 02, 2002	5:38:17 PM	26.24 mA	mA	
13	Dec 02, 2002	5:38:18 PM	26.24 mA	mA	
14	Dec 02, 2002	5:38:19 PM	26.24 mA	mA	
15	Dec 02, 2002	5:38:20 PM	26.24 mA	mA	
16	Dec 02, 2002	5:38:21 PM	26.24 mA	mA	
17	Dec 02, 2002	5:38:22 PM	26.24 mA	mA	
18	Dec 02, 2002	5:38:23 PM	26.24 mA	mA	
19	Dec 02, 2002	5:38:24 PM	26.24 mA	mA	
20	Dec 02, 2002	5:38:25 PM	26.24 mA	mA	
21	Dec 02, 2002	5:38:26 PM	26.24 mA	mA	
22	Dec 02, 2002	5:38:27 PM	26.24 mA	mA	
23	Dec 02, 2002	5:38:28 PM	26.24 mA	mA	
24	Dec 02, 2002	5:38:29 PM	26.24 mA	mA	
25	Dec 02, 2002	5:38:30 PM	26.24 mA	mA	
26	Dec 02, 2002	5:38:31 PM	26.24 mA	mA	
27	Dec 02, 2002	5:38:32 PM	26.24 mA	mA	
28	Dec 02, 2002	5:38:33 PM	26.24 mA	mA	
29	Dec 02, 2002	5:38:34 PM	26.24 mA	mA	
30	Dec 02, 2002	5:38:35 PM	26.24 mA	mA	

## Specifications

**Input Channels:** 8

**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:** 12/minute to 1/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 scale factor from  $\pm 1.000E+99$  to  $\pm 1.000E-99$ . The scale 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:** 16,383 readings per channel max.

**User-Replaceable Battery:** 1 year typical.

**Time Accuracy:**  $\pm 1$  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:** 13 oz.

**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:** 3.5" x 4.4" x 1.5"

**Material:** Black Anodized Aluminum

## Software Features

*The software used to operate the OctProcess 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
5399-0101	Temp101	Miniature Temperature 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	

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MONARCH INSTRUMENT 15 COLUMBIA DRIVE AMHERST, NH 03031 USA  
TEL: 603-883-3390 FAX: 603-886-3300 [sales@monarchinstrument.com](mailto:sales@monarchinstrument.com)

