

# Single channel 4 to 20 mA Current Recorder Process 101

## FEATURES

- 16 Bit Resolution
- Memory: 32,767 readings
- 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
- Operational in Minutes
- Record Keeping Simplified
- Engineering Units can display instruments values

## APPLICATIONS

- 4.0 to 20.0 milli-Amp Recording
- pH Recording
- Remote Monitoring of low level signals
- Battery Studies
- Photovoltaic Studies
- Biological Sensor Monitoring
- Environmental Studies
- Replace Costly Strip Chart Recorders

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 milliAmps. The Process101 uses a 16 bit ADC to achieve a resolution of 0.5 micro-Amps. In addition, the Process101 allows the user to store user defined units such as into the device as well as scale factors and offset values. This enables the user to easily linearize and scale any pH meter that provides an analog output to pH 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

## PROCESS 101

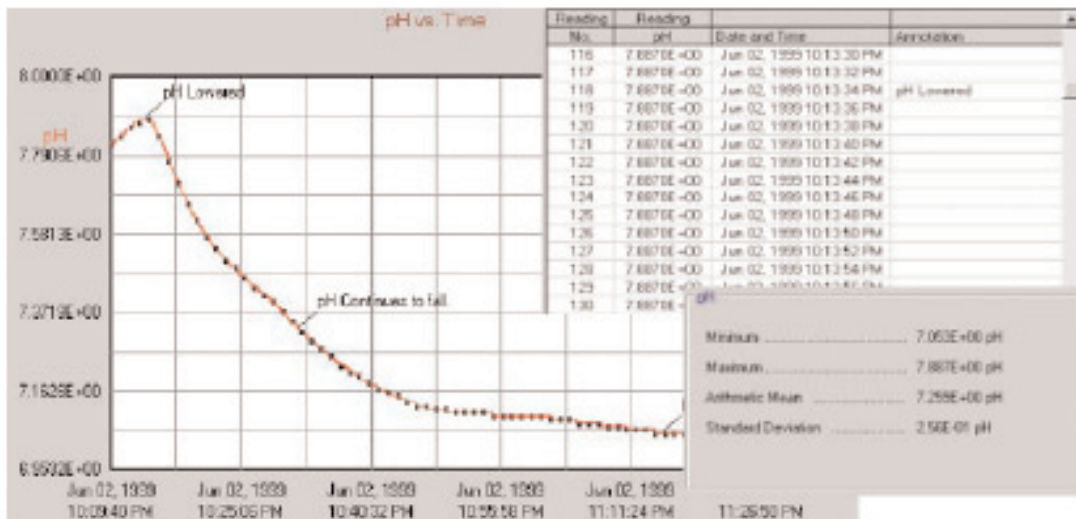
CALIBRATED CURRENT ACCURACY	0.1% of F.S.R. at calibration temperature
CURRENT RESOLUTION	10 microAmps
CURRENT RANGE	-20 to +100 milliAmps
INPUT CONNECTION	removable screw terminal
INPUT IMPEDANCE	10 Ohm
ADC RESOLUTION	16 Bits
CURRENT CALIBRATION	Digital calibration is available in software.
N.I.S.T. TRACEABLE	N.I.S.T. certificates available
CALIBRATION DATE	Automatically recorded within device to alert user when calibration is required.
RECORDING INTERVAL	From 2 sec. to 12 h 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.
GREEN VISUAL INDICATOR	LED flashes at selected reading rate.
MEMORY	32,768 readings max.
USER-REPLACEABLE BATTERY	1 year typical.
TIME ACCURACY	$\pm 1$ minute per 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	PC serial or RS232C COM.
SOFTWARE	Windows® 95/98/NT/2000/XP based software for complete control and operation.
OPERATING ENVIRONMENT	-40oC to +80oC, 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

## SPECIFICATIONS

## PROCESS101 CURRENT RECORDER SOFTWARE

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 realtime data collection.
ANNOTATING DATA	All data points may be easily annotated.
PRINTING	Automatic printing of data in graphical or tabular form.
SCALING	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 in 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:

Process101	-20 to +100 milliAmp Current Recorder
IFC101	Software, Manual and 9 pin Computer Interface Cable
N.I.S.T.	Cert N.I.S.T. Calibration Certificate
LTC-7PN	User replaceable Lithium battery

Easy mounting next to control panel.

