PROCESS101A
DC CURRENT DATA LOGGER

MADGETECH
WE BUILD DATA LOGGERS

Features
- 10 Year Battery Life
- 4 Hz Reading Rate
- Multiple Start/Stop Function
- Ultra High Speed Download
- 1 Million Reading Storage Capacity
- Memory Wrap
- Battery Life Indicator
- Optional Password Protection
- Programmable High and Low Alarms
- Field Upgradeable

Benefits
- Simple Setup and Installation
- Minimal Long-Term Maintenance
- Long-Term Field Deployment

Applications
- 4 mA to 20 mA Recording
- pH Recording
- Low Level DC Current Monitoring
- Photovoltaic Studies
- Battery Studies
- General Purpose Current Recording

The Process101A Data Logger measures and records low level DC current and is available in three different measurement ranges, 20 mA, ±160 mA and ±3 A. This device is ideal for many process driven, general purpose current recording applications including battery or photovoltaic studies.

All of the ranges offer a 10 year battery life, 4 Hz reading rate, programmable or pushbutton start/stop and a 1 million reading storage capacity with optional memory wrap. These features allow for long term active logging deployment and low maintenance. As with many of MadgeTech's 101A series of data loggers, the screw terminal block is designed to easily connect and disconnect to the logger body to simplify retrieval of the device for downloading data by keeping the wiring to the terminal block in place.
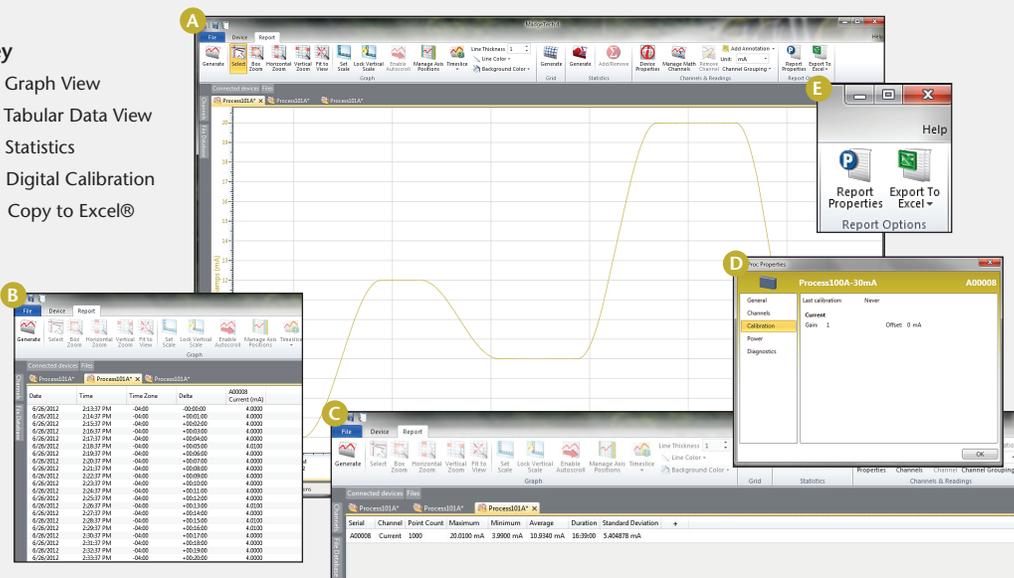
Other features of the Process101A include a battery life indicator, optional password protection, programmable high-low alarms and more.

Using the MadgeTech Software makes configuring the data logger and downloading data simple and user friendly. Graphical, tabular and summary data format options are provided for analysis and data can be viewed in A, mA or µA. The data can also be exported to Excel® for further customized reporting or calculations.
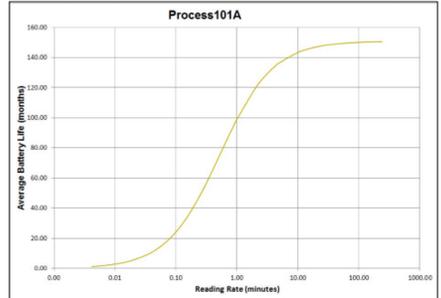
MADGETECH DATA LOGGER SOFTWARE

Key
A Graph View
B Tabular Data View
C Statistics
D Digital Calibration
E Copy to Excel®

Software Features:
- Multiple graph overlay
- Statistics
- Digital calibration
- Zoom in/ zoom out
- Lethality equations (F0, PU)
- Mean Kinetic Temperature
- Full time zone support
- Data annotation
- Min./Max./Average lines
- Data table view
- Automatic report generation
- Summary view
- Multilingual

PROCESS101A SPECIFICATIONS*

Nominal Range:	20mA	±160mA	±3A
Measurement Range:	-2 mA to +30 mA	±160 mA	±3 A
Maximum Voltage Between Inputs to Ground:	0 V to 2.5 V		
Resolution:	0.5 µA	5 µA	100 µA
Calibrated Accuracy:	±0.05 %FSR		±0.15 %FSR
Input Impedance:	10 Ω, ±1%	1 Ω, ±1%	<0.05 Ω
Absolute Maximum Current:	316 mA	1 A	6 A
Input Connection:	Removable screw terminal		
Analog Conversion Time:	133 ms nominal		
Frequency Rejection:	50-60 Hz		
Temperature Coefficient:	< +/- 50ppm/°C typical		
Reading Rate:	4 Hz to 1 reading every 24 hours		
Memory:	1,000,000 readings; software configurable memory wrap 333,000 readings in multiple start/stop mode		
Wrap Around:	Yes		
Start Modes:	• Immediate start • Delay start up to 18 months • Multiple pushbutton start/stop		
Stop Modes:	• Manual through software • Timed (specific date and time)		
Multiple Start/Stop Mode:	Start and stop the device multiple times without having to download data or communicate with a PC		
Multiple Start/Stop Mode Activation:	To start the device: *Press and hold the pushbutton for 5 seconds. The device has started logging.* To stop the device: *Press and hold the pushbutton for 5 seconds, the red LED will flash for three seconds and then the green LED will flash for two seconds. The device has stopped.*		
Real Time Recording:	The device may be used with PC to monitor and record data in real time**		
Alarm:	Programmable high and low limits; alarm is activated when current reaches or exceeds set limits		
LED Functionality:	Green LED blinks: *10 second rate to indicate logging* *15 second rate to indicate delay start mode* Red LED blinks: *10 second rate to indicate low battery and/or full memory*		

Password Protection:	An optional password may be programmed into the device to restrict access to configuration options. Data may be read out without the password.
Engineering Units:	Native measurement units can be scaled to display measurement units of another type. This is useful when monitoring voltage outputs from different types of sensors such as temperature, CO2, flow rate and more
Calibration:	Digital calibration through software
Calibration Date:	Automatically recorded within device
Battery Type:	3.6V lithium battery included; **user replaceable**
Battery Life:	10 year battery life typical, at a 15 minute reading rate Graph display of the device recording in a 25°C environment.
Data Format:	Date and time stamped current, engineering units specified through software
Time Accuracy:	±1 minute/month (stand alone data logging)
Computer Interface:	USB (interface cable required); 115,200 baud
Software:	XP SP3/Vista/Windows 7/Windows 8
Operating Environment:	-40 °C to +80 °C (-40 °F to +176 °F), 0 %RH to 95 %RH non-condensing
Dimensions:	1.4 in x 2.2 in x 0.6 in (36 mm x 56 mm x 16 mm)
Weight:	0.9 oz (24 g)
Materials:	ABS plastic
Approvals:	CE

BATTERY WARNING: FIRE, EXPLOSION, AND SEVERE BURN HAZARD. DO NOT SHORT CIRCUIT, CHARGE, FORCE OVER DISCHARGE, DISASSEMBLE, CRUSH, PENETRATE OR INCINERATE. BATTERY MAY LEAK OR EXPLODE IF HEATED ABOVE 80 °C (176 °F).

*SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE. SPECIFIC WARRANTY AND REMEDY LIMITATIONS APPLY. CALL 1-603-456-2011 OR GO TO WWW.MADGETECH.COM FOR DETAILS.

**THE PROCESS101A-3A MAY ONLY BE USED WITH THE IFC200 "USB DRIVE" MODEL.*

ORDERING INFORMATION

MODEL	DESCRIPTION
Process101A-20mA	±20 mA, Low Level Current Data Logger
Process101A-160mA	±160 mA, Low Level Current Data Logger
Process101A-3A	±3 A, Low Level Current Data Logger
IFC200	Software, manual and USB interface cable
Calibration Certificate	Calibration Certificate available for data logger
LTC-7PN	Replacement battery for Process101A

For Quantity Discounts call 603-456-2011 or email sales@madgetech.com

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