DATASHEET

State101A

MadgeTech

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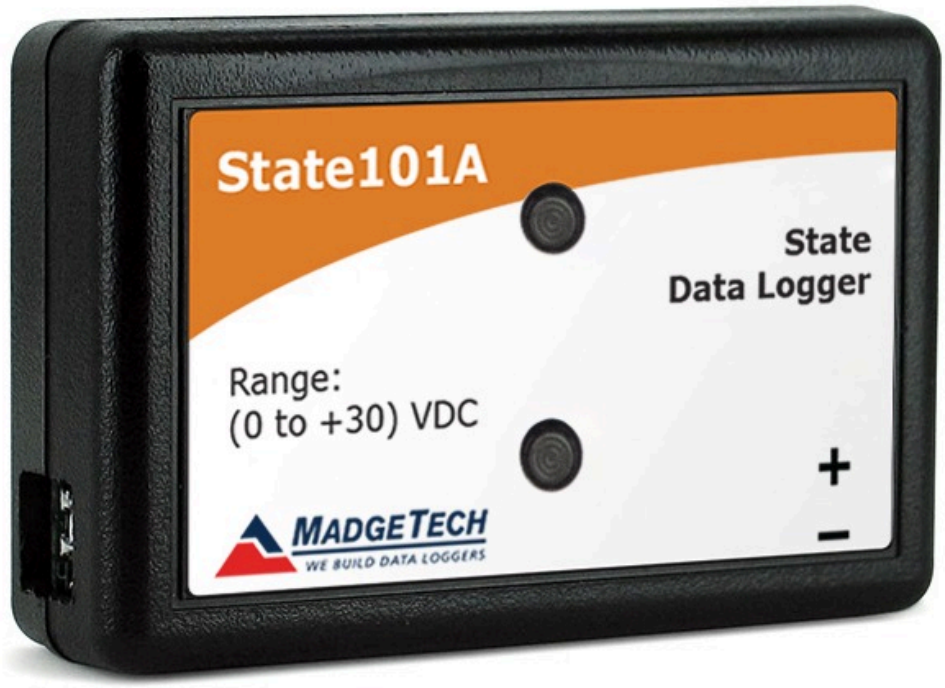
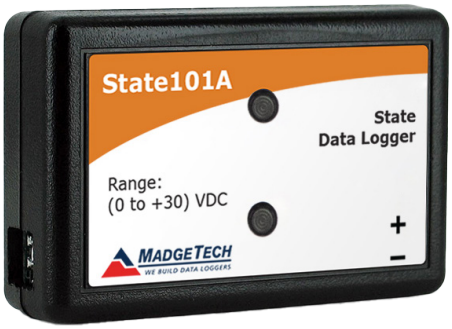


MADGETECH
WE BUILD DATA LOGGERS

State101A

State Data Logger



The State101A data logger monitors and records the occurrence, duration and status of predetermined events by measuring changes in voltage. Typically connected to a relay or switch, this data logger features a removable screw terminal block to easily disconnect and retrieve the logger for data download without disrupting wiring connectivity.

The State101A is a great solution for a variety of industries and applications including HVAC studies to monitor heating and cooling systems for efficiency or the monitoring of gas, water or electric pumps. This device replaces costly strip chart recorders and is also used in TTL high/low monitoring, general status recording and security systems as well.

With a user programmable reading rate of up to 4Hz, 10 year battery life and the ability to store over 400,000 readings, the State101A is extremely versatile and can be active in the field for long durations of time. Other features include optional password protection and pushbutton start/stop directly on the device.

The MadgeTech Data Logger Software provides the user with many customizable options for device configuration and makes data analysis easy with graph displays, tabular data and endless reporting tools.

FEATURES

- 10 Year Battery Life
- 4 Hz Second Reading Rate
- Multiple Start/Stop Function
- Ultra High Speed Download
- 465,578 Reading Storage Capacity
- Memory Wrap
- Battery Life Indicator
- Optional Password Protection
- Field Upgradeable

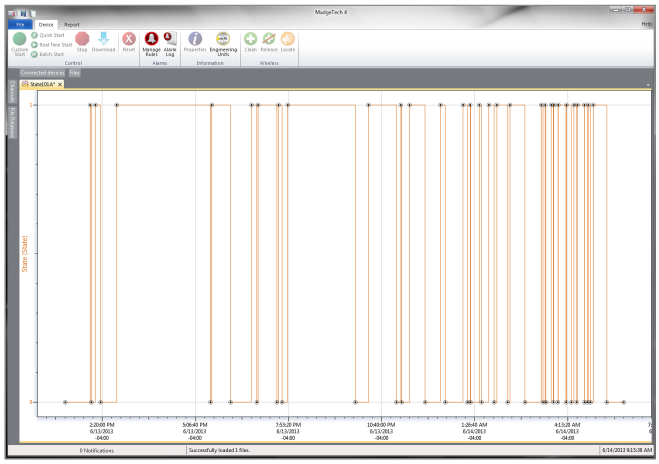
BENEFITS

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

APPLICATIONS

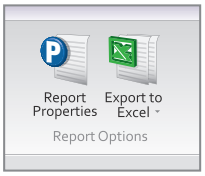
- Heating and Cooling Systems
- Security Systems
- Power Supply On/Off
- Relay or Dry Contact Closure
- TTL High/Low
- Monitoring Gas, Water or Electric Pumps
- Status or State Recording
- Replace Costly Strip Chart Recorders

MadgeTech 4 Software Features

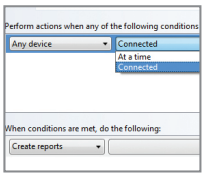


Graph View

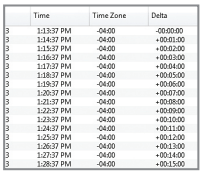
- Multiple graph overlay
- Statistics
- Digital calibration
- Zoom in/ zoom out
- Lethality equations (F0, PU)
- Mean Kinetic Temperature
- Full time zone support
- Data annotation
- Min./Max./Average lines
- Summary view



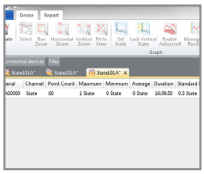
Export to Excel



Automation



Tabular Data View



Statistics

Specifications

Specifications are subject to change without notice. Specific warranty remedy limitations apply.
Call **(603) 456-2011** or go to **madgetech.com** for details.

GENERAL

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
Real Time Recording	May be used with PC to monitor and record data in real time
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
Memory	465,578 readings; software configurable memory wrap
Wrap Around	Yes
Reading Rate	4 Hz up to 1 reading every 24 hours
Engineering Units	Native measurement units can be scaled to display measurement units of another type such as on/off, open/closed and more
LED Functionality	**Green LED Blinks:**10 seconds to indicate logging and 15 seconds to indicate Delay or Manual Start Mode - Standby (waiting to start) **Red LED Blinks**:10 seconds to indicate low battery and/or full memory
LEDs	2 status LEDs
Calibration	Digital calibration through software
Calibration Date	Automatically recorded within device
Battery Type	3.6 V lithium battery included; user replaceable
Battery Life	10 years typical, dependent upon frequency and duty cycle
Time Accuracy	±1 minute/month at 25 °C (77 °F) (Stand alone mode)

Computer Interface	USB (interface cable required); 115,200 baud
Operating System Compatibility	Windows XP SP3 or later
Software Compatibility	Standard Software version 4.1.6.0 or later Secure Software version 4.1.6.0 or later
Operating Environment	-40 °C to +80 °C (-40 °F to +176 °F) 0 %RH to 95 %RH non-condensing
Dimensions	1.4 in x 2.1 in x 0.6 in (35 mm x 54 mm x 15 mm)
Weight	0.8 oz (24 g)
Material	Polycarbonate
Approvals	CE

MEASUREMENT

Input Connection	Removable screw terminal
Input Range	0 V to 30 V
Input Low	< 0.4 V
Input High	> 2.8 V
Internal Weak Pull-Up	< 60 µA
Input Impedance	> 60 kΩ

BATTERY WARNING: Fire, explosion and severe burn hazard. Do not recharge, disassemble, heat above 100 °C (212 °F), incinerate, crush, or expose contents to water.

Ordering Information

State101A	PN 901571-00	State Data Logger
IFC200	PN 900298-00	USB interface cable
LTC-7PN	PN 900352-00	Replacement battery for the State101A

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