# STATE101A
## STATE DATA LOGGER


**VALUTEMP PTE LTD**
*WARMS YOUR HEART*

### Features
- 10 Year Battery Life
- 4 Hz Second Reading Rate
- Multiple Start/Stop Function
- Ultra High Speed Download
- 406,323 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



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.

## MADGETECH DATA LOGGER SOFTWARE

Key
- Graph View
- Tabular Data View
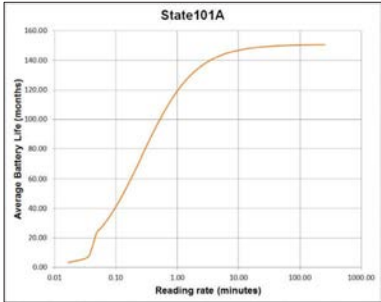- Statistics
- Digital Calibration
- Copy to Excel®
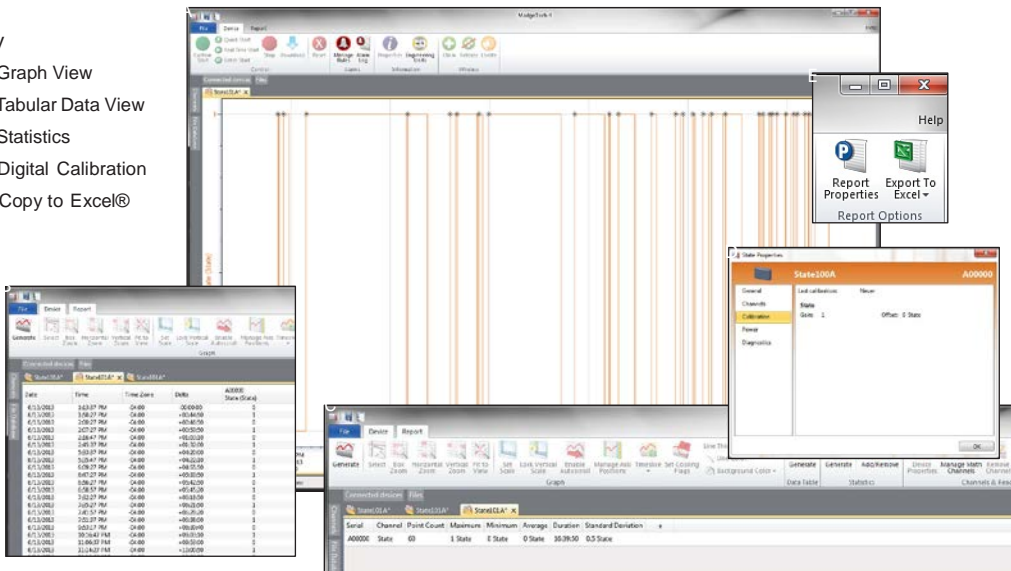


Software Features:
- Multiple graph overlay
- Statistics
- Digital calibration
- Zoom in/ zoom out
- Lethality equations (F0, PU)
- Mean Kinetic Temperature
- Full time zone support
- Data annotation
- Min./Max./Average lines
- Data table view
- Automatic report generation
- Summary view
- Multilingual

# STATE101A SPECIFICATIONS*

| | |
|---|---|
| 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 |
| Time Resolution: | 4 Hz (reading rate selectable in software) |
| Reading Rate: | 4 Hz up to 1 reading every 24 hours |
| Memory: | 406,323 readings; software configurable memory wrap |
| Wrap Around: | Yes |
| Start Modes: | • Immediate start<br>• Delay start up to 18 months<br>• Multiple pushbutton start/stop |
| Stop Modes: | • Manual through software<br>• 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:<br>*Press and hold the pushbutton for 5 seconds, the green LED will flash during this time. The device has started logging.*<br><br>To stop the device:<br>*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 logging.* |
| Real Time Recording: | The device may be used with PC to monitor and record data in real-time |
| LED Functionality: | Green LED blinks:<br>*10 second rate to indicate logging*<br>*15 second rate to indicate delay start mode*<br><br>Red LED blinks:<br>*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 such as on/off, open/closed and more. |
| Battery Type: | 3.6V lithium battery included; user replaceable |
| Battery Life: | 10 years typical, dependent upon frequency and duty cycle.<br><br>Graph display of the device recording in a 25 °C environment. |
| Time Accuracy: | ±1 minute/month (at 20 ºC/68 ºF, stand alone data logging) |
| Computer Interface: | USB (interface cable required); 115,200 baud |
| Software: | XP SP3/Vista/Windows 7/Windows 8 |
| Operating Environment: | -40 ºC to +80 ºC (-40 ºF to +176 ºF), 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, CRUSH, PENETRATE, OR INCINERATE. BATTERY MAY LEAK OR EXPLODE IF HEATED ABOVE 80 ºC (176 ºF).*

*\*SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.SPECIFIC WARRANTY AND REMEDY LIMITATIONS APPLY.*

# ORDERING INFORMATION

| MODEL | DESCRIPTION |
|---|---|
| STATE101A | State Data Logger |
| IFC200 | Software, manual and USB interface cable |
| LTC-7PN | Replacement battery for State101A |

**ASK ABOUT OUR OTHER DATA LOGGERS**

Temperature
Humidity
Pressure
pH
Level
Shock
LCD Display
Pulse/Event/State
Current
Voltage
Wireless
Intrinsically Safe
Spectral Vibration
Motion