MADGETECH
WE BUILD DATA LOGGERS

Motor101A

Description	Motor101A
Resolution	1 second (reading rate dependent)
Memory	406,323 states
Sample Rate	4Hz to 1 every 24 hours
LED Indicator	Red and Green
Required Interface Package	IFC200
Baud Rate	115,200
Typical Battery Life	10 years typical
Operating Environment	-15°C to +40°C, 10 to 90%RH non-condensing
Amperage Range	0.15 to 200Amps
Trip Point	0.15A (150mA) fixed (200mA AC for 50Hz operation)
Status Output	N.O.1.0A@30VAC/DC
Housing	Split Core
Material	ABS Plastic
Dimensions	Data Logger: 1.4" x 2.5" x 0.6" (36mm x 64mm x 16mm) Current Switch: 2.1" x 3.5" x 1.0" (54mm x 89mm x 16mm)
Weight	Without IFC200: 4oz (113g) With IFC200: 9oz (255g)
Approvals	CE

Motor101A
Power Cycle Data Logging System

Battery Warning

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 subject to change.
*See MadgeTech's terms and conditions*

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Wiring the System

Wiring Example

The Motor101A has a two-position removable screw terminal connection. It accepts 2-wire configurations. The Motor101A measures and records on and off status changes of motors or other equipment drawing up to 200 Amps. The state change, or trip set point, occurs when the current going through the switch exceeds 150mA's. The split core switch allows for easy installation. (*Warning: Note the polarity instructions. Do not attach wires to the wrong terminals.*) For loads less than the trip point, wrap the wire around the body of the device and through the center to increase the amount of current running through the device until the trip point will be exceeded.
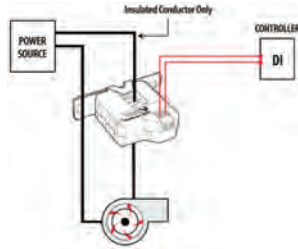
Product Notes

LEDs

Once started, the LED will flash at the selected reading rate to indicate that the device is running.

Engineering Units

Engineering units are used to convert one measurement reading to another. The MadgeTech software allows for software level Engineering Units (conversion applied to data after download). Certain devices have device level Engineering Units, which upon download automatically appear in the chosen unit of measure.

Please refer to the application note "Engineering Units", found on the MadgeTech website, for information on how to manage Engineering Units. Also view the Engineering Units Video for step-by-step instructions.

Installation Guide

Installing the Interface cable
- IFC200
  Insert the device into a USB port. The drivers will install automatically.

Installing the software
1. Download the MadgeTech 4 Software on a Windows PC
2. Locate and unzip the downloaded file (typically you can do this by right clicking on the file and selecting Extract).

3. Open the MTInstaller.exe file.

4. You will be prompted to select a language, then follow the instructions provided in the MadgeTech 4 Setup Wizard to finish the MadgeTech 4 Software installation.

Device Operation

Connecting and Starting the data logger
- Once the software is installed and running, plug the interface cable into the data logger.
- Connect the USB end of the interface cable into an open USB port on the computer.
- The device will appear in the Connected Devices list, highlight the desired data logger.
- For most applications, select "**Custom Start**" from the menu bar and choose the desired start method, reading rate and other parameters appropriate for the data logging application and click "**Start**". (*"Quick Start" applies the most recent custom start options, "Batch Start" is used for managing multiple loggers at once, "Real Time Start" stores the dataset as it records while connected to the logger.*)
- The status of the device will change to "**Running**", "**Waiting to Start**" or "**Waiting to Manual Start**", depending upon your start method.

Note: The device will stop recording data when the end of memory is reached or the device is stopped. At this point the device cannot be restarted until it has been re-armed by the computer.

Downloading data from a data logger
- Connect the logger to the interface cable.
- Highlight the data logger in the Connected Devices list. Click "**Stop**" on the menu bar.
- Once the data logger is stopped, with the logger highlighted, click "**Download**". You will be prompted to name your report.
- Downloading will offload and save all the recorded data to the PC.

Device Maintenance

Battery Replacement
Materials:
Small Phillips Head Screwdriver
Replacement Battery (LTC-7PN)
- Puncture the center of the back label with the screw driver and unscrew the enclosure.
- Remove the battery by pulling it perpendicular to the circuit board.
- Insert the new battery into the terminals and verify it is secure.
- Screw the enclosure back together securely.
Note: Be sure not to over tighten the screws or strip the threads.

Recalibration
The Motor101A has a digital input signal and cannot be calibrated. A certificate of conformance can be provided.