MADGETECH
WE BUILD DATA LOGGERS

Product User Guide

OctProcess and QuadProcess

Description	QuadProcess	OctProcess
Current Range	*See Table Below	
Current Resolution		
Calibrated Accuracy		
Input Impedance		
Channels	4	8
Memory	32,767/channel	16,383/channel
Reading Rate	1 reading every second up to 1 reading every 12 hours	
LED Indicator	None	
Required Interface Package	IFC200	
Baud Rate	2,400	
Typical Battery Life	1 year	
Operating Environment	-20 °C to +60 °C, 0 %RH to 95 %RH (non–condensing)	
Material	Anodized aluminum	
Dimensions	3.5 in x 4.4 in x 1.0 in (89 mm x 112 mm x 26 mm)	3.5 in x 4.4 in x 1.5 in (89 mm x 112 mm x 39 mm)
Weight	13 oz (370 g)	17 oz (480 g)
Approvals	-	

*Current Series Range, Resolution and Calibrated Accuracy

Nominal Range	±1 mA	±25 mA	±100 mA
Measurement Range	±1.5 mA	±30 mA	±120 mA
Common Mode Input Range	0 to 2.5 V	0 to 2.5 V	0 to 2.5 V
Resolution	0.05 µA	1 µA	5 µA
Calibrated Accuracy @ 25 °C	50 Ω	10 Ω	2 Ω

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 60 °C (140 °F).

OctProcess-1mA
8-Channel Low Level DC Current Data Logger

OctProcess-25mA
8-Channel Low Level DC Current Data Logger

OctProcess-100mA
8-Channel Low Level DC Current Data Logger

QuadProcess-1mA
4-Channel Low Level DC Current Data Logger

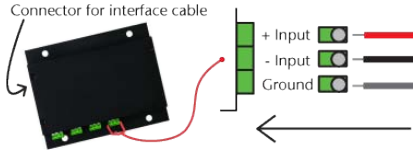
QuadProcess-25mA
4-Channel Low Level DC Current Data Logger

QuadProcess-100mA
4-Channel Low Level DC Current Data Logger

Wiring the Data Logger

Wiring Options

The QuadProcess and OctProcess both have two-position removable screw terminal connections. The QuadProcess has 4 connections, the OctProcess has 8 connections. They accept 3-wire configurations.



Warning: Note the polarity instructions. Do not attach wires to the wrong terminals.

Product Notes

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 setup instructions.

Installation Guide

Installing the Interface cable

- IFC200
  Insert the device into a USB port. The drivers will install automatically.
- IFC110
  Plug the serial cable into the port and verify it is secure.

Installing the software

The Software can be downloaded from the MadgeTech website at the following link: www.madgetech.com/software-download. Follow the instructions provided in the Installation Wizard.

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.
- Disconnect the data logger from the interface cable and place it in the environment to measure.

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

- 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: 3/32" HEX Driver (Allen Key) and a Replacement Battery (U9VL-J)

- Remove the cover from the device by unscrewing the four screws.
- Remove the battery from its compartment and unsnap it from the connector.
- Snap the new battery into the terminals and verify it is secure.
- Replace the cover taking care not to pinch the wires. Screw the enclosure back together securely. *Note: Be sure not to over tighten the screws or strip the threads.*

Recalibration

The QuadProcess or OctProcess standard calibration is at two points. The points are dependent on the range of the data logger.

Additional Services:
Custom calibration and verification point options available, please call for pricing.

Range	1 mA	25 mA	100 mA
Calibration Points	0 mA and .9-1 mA	0 mA and 22.5-25 mA	0 mA and 90-100 mA