

IQ830

DIN Rail Mount Serial Data Logger

Datasheet – English 1.00



Introduction

Model IQ830 is a DIN Rail mount serial data logger. Serial Information is received either via the RS232 or RS485 port and recorded to the SD card (maximum logging rate of 1 second).

The data on the SD card is stored in a Comma Separated Variable (.CSV) file that can easily be opened in spreadsheet or text viewer type program.

The IQ830 is housed in a space saving DIN rail mount enclosure and is very easy to install.

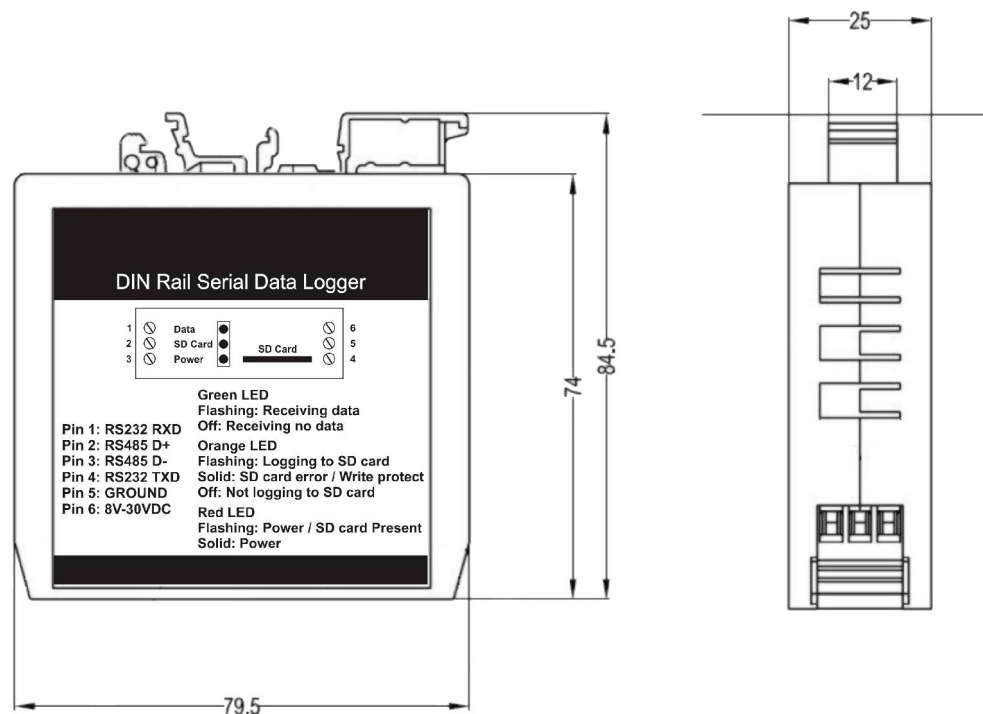
1 Features

- RS232 and RS485 ports
- 1 Second serial data logging to a SD card
- Data is stored in a Comma Separated Variable file (.CSV)
- Supports all SD card capacities (Both normal and HC SD cards)
- 8-30VDC switch mode power supply with built in 33V over voltage and reverse voltage protection
- Extremely easy to install
- Space saving DIN rail mount enclosure
- 1 Year Warranty

2 Specifications

SD Card	
Capacity	Normal and HC cards supported
Output file format	Comma Separated Variable (.CSV)
Electrical	
Supply Voltage	8 to 30VDC switch mode power supply with built in 33V over voltage and reverse voltage protection
Supply Current	Typically 45mA @ 12Vdc
General	
Status LEDES	<p>Green LED Flashing: Receiving data Off: Receiving no data</p> <p>Orange LED Flashing: Logging to SD card Solid: SD card error / Write protect Off: Not logging to SD card</p> <p>Red LED Flashing: Power / SD card Present Solid: Power</p>
Serial Interface	RS232 or RS485
Environmental:	
Operating temperature	-10°C to 50°C (14°F to 122°F)
Storage temperature	-40°C to 80°C (-40°F to 176°F)
Operating and storage humidity	<85% RH non-condensing
Enclosure:	
Enclosure Dimensions	Din Rail 79.5x74x25mm (LxHxD) (3.13"x2.91"x0.98")
Enclosure Material	Nylon
Enclosure Color	Green

3 Dimensions



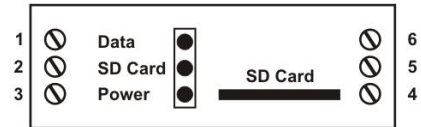
4 Installation

4.1 Connection Diagram

Connect the IQ830 as follows:

Pin 1: RS232 RXD (Input to the IQ830)
 Pin 2: RS485 D+
 Pin 3: RS485 D-
 Pin 4: RS232 TXD (Output from the IQ830)
 Pin 5: GROUND (Power)
 Pin 6: 8V-30VDC (Power)

The minimum connection is power and the RS232 RXD line.



4.2 Status LEDs

3 LEDs provide status indication.

Green LED

Flashing: Receiving data
 Off: Receiving no data

Orange LED

Flashing: Logging to SD card
 Solid: SD card error / Write protect
 Off: Not logging to SD card

Red LED

Flashing: Power / SD card Present
 Solid: Power

Green LED

Flashing: Receiving data
 Off: Receiving no data

Orange LED

Flashing: Logging to SD card
 Solid: SD card error / Write protect
 Off: Not logging to SD card

Red LED

Flashing: Power / SD card Present
 Solid: Power

5 Output File Format (Comma Separated Variable (.CSV))

5.1 File with real time clock data

The IQ830 will create a Comma Separated Variable (.csv) file with the first date received in the serial data. A new file is created every time the date changes. The file is created in the root directory of the SD card

Example file with real time clock recording:

This example file will be called 03042014.csv and will reside in the root directory of the SD card.

```
03/04/2014,16:13:54,N,20.000,kg
03/04/2014,16:13:56,N,20.000,kg
03/04/2014,16:13:57,N,20.000,kg
03/04/2014,16:13:58,N,20.000,kg
03/04/2014,16:13:59,N,20.000,kg
03/04/2014,16:14:01,N,20.000,kg
03/04/2014,16:14:02,N,20.000,kg
```

5.2 File with no real time clock data

This file will be called log.csv and will reside in the root directory of the SD card. All data is appended to the end of the file.

Example file with no real time clock data:

```
N,20.000,kg  
N,20.000,kg  
N,20.000,kg  
N,20.000,kg  
N,20.000,kg  
N,20.000,kg  
N,20.000,kg  
N,20.000,kg  
N,20.000,kg  
N,20.000,kg
```

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