



Overview

The **CELL-Q** family of controllers has been developed to collect data from sensors used to assess the condition of lead-acid batteries

This data is then transferred to a central location for detailed analysis.

The version of the Controller as described in this data sheet has been specifically designed to interface with addressable sensor modules using the "S" Bus protocol.

All the modules that use the "S" Bus are individually addressable stand alone modules. This allows multiple battery strings on separate power sources to be monitored from a single controller (254 modules maximum on a single "S" Bus circuit)

Description

During normal operation the controller sequentially interrogates the individual modules and collects data on voltage and temperature. Typically one or more times a day, the latest data is transmitted by the controller to a central location for retention and analysis; in addition the controller will also initiate an impedance read cycle at a user-defined schedule. This impedance data will also be sent at the next scheduled communication.

Although a single "S" Bus can support both **EM-1** and **IM-2** modules in order to facilitate the early detection of a discharge condition and initiate the recording of individual cell voltages during discharge, the **CELL-Q** controller has a separate "S" Bus circuit referred to as the "I" Bus and specifically allocated to communicating with the current sensing modules.

Specifications

Electrical

Supply Voltage 9-36V

Current Consumption

Base Load 100 mA

Per EM-1 Module 1.5mA

Performance Data

Communications Bit Rate 9,600 / 19,200

Max Modules per bus 254

Processor

Processor speed 44.2 MHz

Memory

Flash 512K

SRAM Program 512K

Data 256K

Time management On-board RTC

External Interface

I/P Power Connector Two pin Plug

Temperature Sensor Two pin Plug

S-Bus RJ11 socket

I-Bus RJ11 socket

Modem 9 pin "D" Type Plug

Modem Power Two pin Plug

General Data

Operating temperature - 5 to + 75 °C

Storage temperature - 25 to + 85 °C

Weight 12 oz

Dimensions (ins) 2.2 x 10.2 x 6.5