

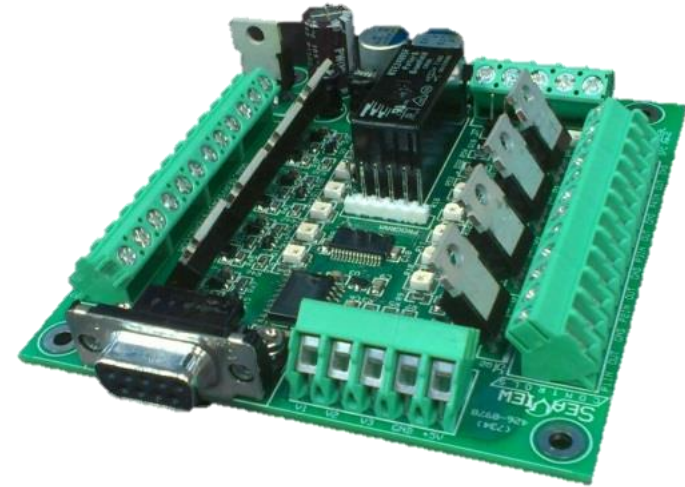


SVS-601 System Power Controller

A Low Power Circuit Board for the Control and Monitoring of Subsystem Power in Data Collection Systems

Power efficiency is important in remote data collection systems that are typically solar-powered. Systems such as the Real-time Coastal Observation Network (ReCON) require controlling power to sensors and components with currents up to 2A and voltages up to 48V. Other off-the-shelf systems either consume unnecessary power or are limited in the amount of current and voltage they can handle.

The SVS-601 provides eight channels of semiconductor-switched power that can handle the current and voltage requirements while consuming a low amount of quiescent power. Each power channel provides high-side switching up to 60V and currents up to 2A. A low-power microprocessor using an RS-232 serial interface allows programming of the channels, including time delayed events. Three analog input channels allow measuring system voltages such as solar panel, battery and system bus voltages. The controller includes a watchdog timer with relay output which allows a full power reboot of the data collection system. Operating voltages can range from 7-60V and the entire controller only consumes 0.14W of power when powered at 12V. The SVS-601 conforms to PC/104 standard form factor.



SeaView Systems, Inc. designs, manufactures and operates remotely operated vehicles, electronics and other custom hardware/software tools, including oceanographic instruments, custom remotely operated vehicles and tooling systems, to meet oceanographic and underwater robotic applications.

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