SCS-800 / SCS-801

Compact, High-Performance Signal Conditioning Systems for Portable and high channel count Applications

Features

- Portable (SCS-800) or rack mount (SCS-801)
- Signal conditioning for all sensor types
- Eight slot (SCS-800) or eighteen slot (SCS-801)
- All modules equipped with Anti-Alias filters
- Fully software controllable
- Choose from:
  - **Amplifier/Filter**—Eight (8) channel amplifier with wide variety of anti-alias filters
    - Butterworth – 8,6, or 4 poles
    - Bessel – 8,6, or 4 poles
    - Elliptic – 8 poles
    - Linear Phase – 8 poles
  - **Strain Gage**—Four (4) channel amplifier 4-pole analog filter, excitation supply, bridge completion, plus many automatic features. Available with a variety of filters and band width
    - Butterworth – 4 pole
    - Bessel – 4 pole
  - **Custom—**please call factory with requirements.

High-Performance Platform

The SCS-800 is a high-performance signal conditioning system for PC-based data acquisition. Two chassis styles provide either 8 slots or 18 slots, which accept any of the available sensor interface modules. The SCS-800 portable chassis includes AC power supply and offers optional 12V or 24V battery connections.

A fully configured SCS-800 provides 64 channels of data acquisition, while the SCS-801 provides 144 channels. Fully configured with thermocouple modules the SCS-801 sports 288 channel for precise temperature measurements.

Data output can be parallel on a per channel basis, multiplexed on a module basis, or multiplexed on a chassis basis.

Up to 128 chassis can be addressed via one RS485 connection to the host computer.

Once programmed the SCS-800 stores all parameters for each module in non-volatile memory and reinitializes those parameters every time power is applied.

Modules

The SCS-800 product family provides quality sensor interface, amplification, and anti-aliasing filters that conform to the 3U Eurocard form factor. (Refer to the separate module data sheets for more information.) All input and output connections are made from the front of the unit, easing maintenance and eliminating the need to struggle with complex field wiring to service or modify the SCS-800 system.

Product	Description	# of Channels
Base System		
SCS-800	Portable Chassis, AC power	8 slots
SCS-800R	Rack Mount Chassis, AC power	8 slots
SCS-801	Rackmount Chassis, AC power	18 Slots
SCS-802	Portable Chassis, AC power	18 Slots
DC-800	12V DC power option	
DC-824	24V DC power option	
Modules		
SCS-812	Amplifier/Filter, Elliptic/Linear Phase, 8 pole	8
SCS-814	Amplifier/Filter, Butterworth, 6 pole	8
SCS-815	Amplifier/Filter, Bessel, 6 pole	8
SCS-816	Amplifier/Filter, Butterworth, 8 pole	8
SCS-817	Amplifier/Filter, Bessel, 8 pole	8
SCS-818	Amplifier/Filter, Butterworth, 4 pole	8
SCS-819	Amplifier/Filter, Bessel, 4 pole	8
SCS-824	Strain Gage Amplifier/Filter Butterworth, 4 pole	4
SCS-825	Strain Gage Amplifier/Filter, Bessel, 4 pole	4
SCS-826	Strain Gage Amplifier/Wide Band Filter Butterworth, 4 pole	4
SCS-827	Strain Gage Amplifier/ Wide Band Filter, Bessel, 4 pole	4

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Chassis

The SCS-800 chassis houses the modules in an impact and corrosion resistant case. It features a carrying handle, front plexiglass cover, tilt feet, and a front-panel LED that indicates power on/off status. A built-in serial interface provides a convenient, direct connection to the standard serial port on a host PC for remote control.

Power Requirements (SCS-800) for SCS-800 multiply by 2.3

Line voltage................ ......100V to 240 VAC ($\pm$10V), 47 to 60 Hz

Power dissipation ....100 watts max

Isolation...................... ......500V between DC/AC power supplies

Communications

Interface ....RS-232-C and RS-485

Control connector ....Standard 9-pin D-sub male

Serial Cable................. ......Included

Environmental/Physical

Operating temperature ......0$°$C to 55$°$C

Storage temperature .. ..-25$°$C to 85$°$C

Humidity ....10 to 90% non-condensing

SCS-800 dimensions.. ......13.5$°$W x 7.0$°$H x 14.5$°$D

SCS-801 dimensions.. ......19$°$W x 7.0$°$H x 17$°$D

SCS-800 Weight......... ......18 lbs

SystemView 800™ Software Control

The capabilities of the SCS-800 result from the meticulous design of SystemView 800, an easy-to-use graphical application for controlling the SCS-800.

Achieving system setups in just seconds, SystemView provides point and click navigation through pull-down menus for quick selection of key parameters, such as filter cut-off frequencies, amplifier gains and AC/DC coupling. As parameters are changed, SystemView makes all relevant calculations, reducing setup time.

The SCS-800 stores the last selected configuration in non-volatile memory, and automatically reconfigures itself after power is applied. Multiple configurations can be saved on the host PC and can be easily applied by selecting the file and sending its data to the SCS-800.

SystemView 800 is built on a powerful set of dynamically linked library of utilities that can be called from any custom application or graphical data acquisition environment such as LabView$®$, DASYLab$®$, HP-VEE$®$, Diadem$®$ and more.

SystemView 800 is available in a 32-bit version for Windows XP,2000,NT,Me,98,and 95.