
Serial Data Interface

Model SC100

Datalogger to Sensor (Measurement and Control Peripheral)

The SC100 filters and buffers data between a serial sensor and a CR10(X) or 21X datalogger. It's used in applications where a sensor outputs serial ASCII data unconditionally or randomly. To read data sent from the SC100, the datalogger uses Instruction 15 and control ports. The SC100 buffers up to 90 bytes of serial data received at 1200, 2400, 4800, 9600, 19200, and 38400 bps then transmits the buffered data to the datalogger at 1200 bps. The data or commands can be transmitted from the datalogger to the sensor when required.

The SC100 searches for a six-character, user-specified ASCII string in the received data. Data that follow this string is buffered until a termination character (e.g., carriage return) has been encountered. The SC100 and datalogger use control ports to coordinate data transfer. Incoming data is stored in input locations for further processing or transfer to final storage.

Datalogger to Computer (Communications Peripheral)

In this mode, the SC100 can receive burst data from the datalogger at 76.8 kbaud. The data is then buffered and transmitted to the computer at 38.4 kbaud.

SC100 Cable

The SC100 Cable (3 ft. length) is used to connect the datalogger with the SC100. The cable terminates in a 9-pin female connector on one end (for attachment to the 9-pin male D-style connector on the SC100). The cable terminates in seven conductors on the other end that connect to terminals on the datalogger's wiring panel. Five of the conductors connect to datalogger control ports; the other two connect to power and ground.

A 9-pin female connector on the SC100 is used to connect to the sensor or computer. An additional customer-supplied cable (typically a 9-pin to 9-pin or 9-pin to 25-pin depending on the sensor or computer involved) is required for this purpose.

Specifications

Compatible dataloggers: CR10, CR10X, and 21X; the CR10 and 21X require a library special EPROM that includes Instruction 15. The CR500, CR510, CR7, CR5000, and CR9000 do not support Instruction 15 and therefore cannot use the SC100; the CR23X can buffer data to its control and serial ports without using the SC100.

Power source: Datalogger's 5 or 12 Vdc supply

Current drain: 55 mA active, 50 μ A quiescent



CAMPBELL SCIENTIFIC, INC.

815 W. 1800 N. • Logan, Utah 84321-1784 • (435) 753-2342 • FAX (435) 750-9540
Offices also located in: Australia • Brazil • Canada • England • France • South Africa • Spain

Copyright © 2001
Campbell Scientific, Inc.
Printed June 2001