



## SC-USB

USB to CS I/O Optically Isolated Interface



### Overview

The SC-USB allows Campbell Scientific dataloggers to communicate directly with computers that have a USB interface. It is optically isolated, which helps eliminate noise pickup associated with PC power supplies and ground connections. The SC-USB can be used in place of an SC32B interface/USB converter combination.

### Benefits and Features

- › Connects a PC to the CS I/O port of a datalogger
- › Helps protect components from electrical damage
- › No power source needed—powered by datalogger and PC
- › Ships with cables<sup>a</sup> needed for most uses, and a CD that contains drivers and a set-up/programming utility
- › High data transfer rates—up to 1 Mbps

### Specifications

- › Campbell Scientific Protocols Supported: Modem Enable (ME), Synchronous Device Communications (SDC)<sup>b</sup>, and Concurrent SDC (CSDC)<sup>c</sup>
- › Temperature Range: -25° to +50°C
- › CS I/O Port: Opto-isolated (signal isolation only) from the PC's USB port to 47 Vac or dc
- › 17648 Cable Description: 1.8 m (6 ft) length; type-A male to type-B male
- › Weight: 85 g (3.0 oz)
- › Height: 2 cm (0.8 in)
- › Width: 4 cm (1.6 in)
- › Length: 7.5 cm (3 in)
- › Power: Drawn from the PC and datalogger

#### Current Drain

- › Drawn from Datalogger
  - Standby: < 1 mA
  - Active: < 20 mA
- › Drawn from PC
  - Standby: < 18 mA
  - Active: < 85 mA

#### Communication Rates

- › Asynchronous: 9600 bps to 115 kbps
- › Synchronous: up to 1 Mbps
- › USB Transfer: up to 12 Mbps

<sup>a</sup> The SC-USB is shipped with an SC12 2 ft cable for attachment to the datalogger and a 17648 6 ft cable for attachment to the PC. An SC12R-6 6 ft cable can be purchased separately and used instead of the standard SC12 cable when a longer cable is needed. The 17648 USB cable began shipping with the SC-USB in December 2009. Before that, the SC-USB was fitted with a USB cable as part of its integrated package.

<sup>b</sup> SDC only works with datalogger operating systems created since October 2002 (e.g., CR10X 1.18 or higher, CR23X 1.15 or higher)

<sup>c</sup> CSDC only works with a PakBus dataloggers and the CR5000.



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