CAMPBELL SCIENTIFIC
WHEN MEASUREMENTS MATTER

COM220

Phone Modem

Ideal for Remote Sites

Low power use; wide operating temperature range

Overview

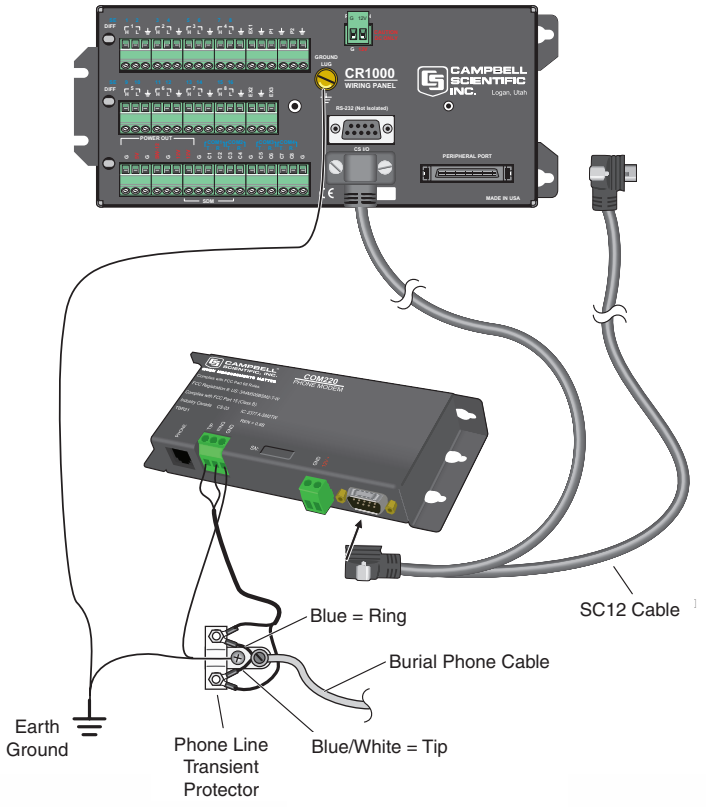
The COM220 phone modem enables communications between a computer and a Campbell Scientific datalogger over a public switched telephone network. A Hayes-compatible modem is required at the computer site. The COM220 connects to the datalogger at the field site.

Benefits and Features

- Wide operating temperature range and low power requirements make it ideal for use at remote sites
- Supports communication rates up to 115.2 kbps between modem and logger. (In practice, data transmission through phone lines is generally constrained to 33.6 kbps.)
- Compatible with most Campbell Scientific dataloggers
- Offers both modem enabled (ME) and synchronous device communications (SDC) modes
- Allows user to set the number of rings before answering call

Technical Description

The COM220 has a CS I/O port, power terminals, screw terminals, and an RJ-11C jack. The datalogger connects with the CS I/O port via an SC12 or SC12R-6 cable. The RJ-11C jack is for attaching a surge-protected telephone line. Alternatively, the screw terminals (GND, RING, TIP) can be used to connect the COM220 with a phone line via a surge protector.



A COM220 is connected with a CR1000 and a surge protector.

Ordering Information

Telephone Modem	
COM220	56 k Phone Modem

Temperature Range Options (choose one)	
-ST	Tested for -25° to +50°C range.
-XT	Tested for -55° to +85°C range.

Country of Usage Options (choose one)	
-US	Set for use in US or Canada
-UK	Set for use in the UK.
-AU	Set for use in Australia.

Accessories	
4330	Surge Protector 2-Wire, JOSLYN 2374-01
6362	Surge Protector Kit for 2-Wire Modem with Mounting for Enclosure Use.
SC532A	Peripheral to RS-232 Interface that is required to set the
CABLE2CBL-L	2-conductor, 22-awg cable with user-specified length; enter length, in feet, after the -L. Typically, this cable is used when the COM220 is housed in a prewired enclosure. For this application, order the -PW option (see below).

Cable Termination Options for CABLE2CBL (choose one)	
-PT	Cable terminates in stripped and tinned leads for direct connection to a datalogger's terminals.
-PW	Cable terminates in a connector for attachment to a prewired enclosure.

Specifications

- Standards: V.92, K56Flex, V.90, V.34, V.32bis, V32, V23, V22bis, V22, V.21, B212, B103
- CE Compliant
- Compatible Dataloggers: CR6, CR800, CR850, CR1000, CR3000, CR5000, CR7, CR500, CR510, CR10(X), 21X, CR23X
- Operating Voltage: 12 Vdc
- Communication Rate Between Datalogger and COM220 (selected by user): 9600, 38400, 57600, 115200 bps)
- Operation: Full-duplex over standard analog phone lines
- Dimensions: 16.5 x 2.5 x 6.6 cm (6.5 x 1.0 x 2.6 in)
- Weight: 0.16 kg (0.35 lb)

Operating Temperature Range

- Standard: -25° to +50°C
- Extended: -55° to +85°C

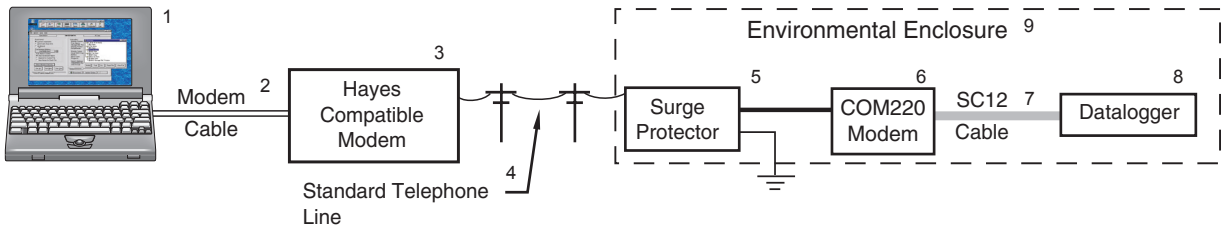
Registration

- FCC US: 3A4M508BSM2-T-W
- IC 2377 A-SM2TW
- TBR21

Current Drain

- Quiescent: ~120 µA
- Active: ~30 mA

Hardware Requirements



At Computer Base Station

(1) User-supplied PC running PC400 or LoggerNet Datalogger Support Software

(2) 7026 serial cable or equivalent

(3) Customer-supplied, Hayes-compatible modem

(4) Switched telephone network that connects the computer base station with each datalogger field site

At Field Site

(5) Telephone surge protector if the telephone company has not installed surge protection

(6) COM220 modem

(7) SC12 cable (included with COM220); the SC12R-6 may be purchased if a longer cable is required.

(8) Datalogger

(9) Typically an ENC12/14, ENC14/16, or ENC16/18 environmental enclosure

(10) Power supply, usually the datalogger's sealed rechargeable battery recharged with ac power or solar panel