

# PWENC-Series

## Prewired Weather-Resistant Enclosures



No time to wire your Campbell Scientific system? Let us do it for you. Our PWENC-series enclosures combine flexibility with ease of use. You have the flexibility to choose your system components, but installation is easy because the sensors are simply attached to prewired connectors on the outside of the enclosure.

Campbell Scientific offers prewired enclosures in our three largest standard sizes. Connectors, communication ports, and the enclosure mounting bracket are chosen as options.\* You order the sensors, datalogger, power supply, and communication peripherals separately. The enclosure can be attached to any of our tripods or towers, or to a user-supplied pipe.



Above is a PWENC12/14 with seven sensor connectors, a conduit, a medium entry seal, two antenna connectors, and an RS-232 connector.

### Features/Benefits

- Combines flexibility with ease of use
- Eliminates the task of wiring sensor leads into the datalogger's terminal strips
- Facilitates sensor replacement during field maintenance (replacement sensor with connector needed)
- Includes a default program that matches sensor configuration (see page 3)
- Reduces wiring errors by inexperienced field technicians who are unfamiliar with the equipment
- Shortens deployment time
- Allows each enclosure in a large network to be similar to the other enclosures
- Provides an ideal solution for systems with stable sensor configurations

### Compatible Equipment

Compatible dataloggers are the CR200X series, CR800, CR850, CR1000, CR3000, and CR5000. Our prewired enclosures can house any peripheral that our standard enclosures can house. Equipment that can be attached to the outside of the prewired enclosure include:

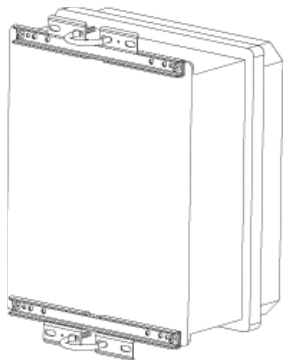
- **Sensors**—models with a *-PW* cable termination option are compatible. Alternatively, pressure transducers or other sensors that have a vented cable can be connected to the prewired enclosure via the A150 Desiccated Case.
- **AC wall chargers**—the 22110 Wall Charger (accepts 110 Vac) and the 22111 Wall Charger (accepts 90 to 264 Vac) have the appropriate connector.
- **Solar panels**—Campbell Scientific offers *-PW* versions of our 10-W, 20-W, and 70-W solar panels.
- **Keyboard display**—a CS I/O port can be added to the enclosure for connecting the CR1000KD.
- **Laptop**—either an RS-232 or CS I/O port can be added to the enclosure for connecting a laptop.



Connectors eliminate the work of wiring sensor leads to the datalogger's terminals. Top left: the datalogger side of the connector (inside the enclosure). Bottom left: sensor side of a connector (outside the enclosure).

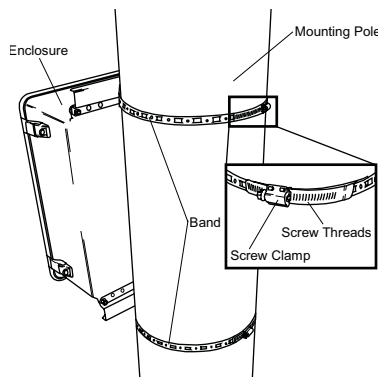
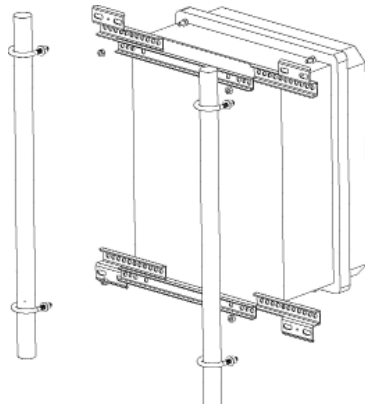
- **Ethernet cable**—an Ethernet port is offered that supports communications over a local network or a dedicated Internet connection.
- **Antennas**—the outside of the enclosure can include connectors for attaching antenna cables.
- **Digital camera**—the cable used to connect the CC5MPX high-resolution digital camera has a *-PW* cable termination option.
- **Measurement and control peripherals**—cables used to connect our SDMs and multiplexers come in *-PW* versions.

\*Refer to the Ordering Information for standard configurations. Nonstandard configurations must be special ordered. It is considered a non-standard configuration when using a different type, size, or location for any connector, communication port, conduit, cable entry seal, or antenna bulkhead (contact Campbell Scientific for more information).

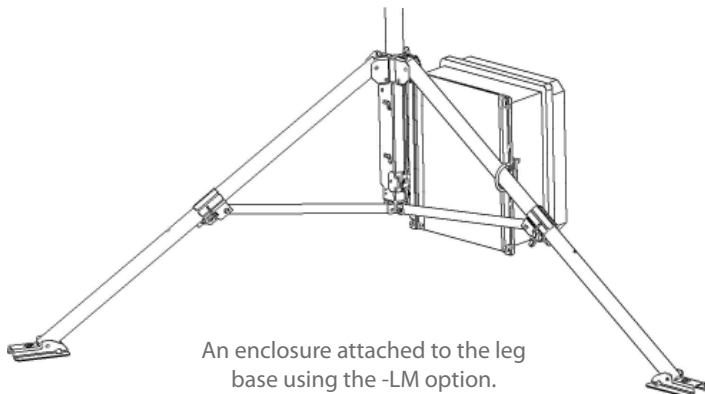


At left is an enclosure with the -MM mount option. The bracket is ready to be attached to a mast or user-supplied vertical pipe with a 1.25-in. to 2.1-in. outer diameter.

At right is an exploded view of the -TM option. It shows the bracket components and how the enclosure attaches to a tower.



At left shows the -PM option, where the enclosure is mounted to a large diameter pole via band clamps.



An enclosure attached to the leg base using the -LM option.

## Ordering Information

### Prewired Enclosures

For the prewired enclosure, choose the number of connectors, a communication port option, conduit option, cable entry seal option, and enclosure mount option.

- PWENC12/14** 12-in x 14-in Prewired Weather-Resistant Enclosure that can have up to eight connectors (see below).
- PWENC14/16** 14-in x 16-in Prewired Weather-Resistant Enclosure that can have up to ten connectors (see below).
- PWENC16/18** 16-in x 18-in Prewired Weather-Resistant Enclosure that can have up to 19 connectors; must choose a backplate option (see below).

### Number of Connectors

- C** After the -C, enter the number of connectors you need. Depending on the enclosure, the maximum number of connectors is 8, 10, or 19 (see above).

### Backplate Options for PWENC16/18 (choose one)

- SB** Standard Backplate.
- EB** Backplate with sideplate.

### Communication Port Options (choose one)

The port(s) will be on the bottom right of the connector panel.

- NP** No communication port.
- 1P** One 9-Pin Port configured as either RS-232 or CS I/O.
- 2P** Two 9-Pin Ports. One port is configured as RS-232 and the other port is configured as CS I/O.
- EP** One Ethernet Port

### Conduit Options (choose one)

A cable-entry conduit allows several cables to be connected directly to equipment contained in the enclosure.

- NC** No conduit.
- SC** One 1.5-in diameter conduit on bottom left of connector panel.

### Cable Entry Seal Options (choose one)

The cable-entry seal is compressed around one cable to provide an air-tight seal. A small vent is included to equalize pressure with the atmosphere. The cable entry seal will be on the top left of the connector panel.

- NE** No Cable Entry Seal.
- SE** Small Cable Entry Seal for one cable with a 0.118-in to 0.275-in diameter.
- ME** Medium Cable Entry Seal for one cable with a 0.231-in to 0.394-in diameter.

### Enclosure Mount Options (choose one)

- NM** No Enclosure Mounting.
- MM** Tripod Mast Mounting.
- TM** Tower Mounting.
- LM** CM106, CM110, CM115, or CM120 Leg Mounting (not available for the PWENC16/18).
- PM** Large Diameter Pole (e.g., telephone pole) Mounting.

## Ordering Information Continued

### Antenna Cable/Bulkhead Installations

*These accessories are offered for prewired enclosures that will house a cellular phone, satellite transmitter, or radio. When ordered, Campbell Scientific will punch a special bulkhead hole in the enclosure and install a 17-in cable. The bulkhead will be placed on the right side of the connector panel.*

- 19332** Type N-to-Type N Antenna Cable for the RF310-series radios and our GOES satellite transmitters.
- 19335** Type N-to-RPSMA Antenna Cable for our RF401-series spread spectrum radios, CR200(X)-series dataloggers, or AWW200-series Interfaces.
- 19334** Type N-to-SMA Antenna Cable for the RF450 radio or RavenXT-series cellular modems.
- 19333** Type N-to-TNC Antenna Cable for the retired Raven100-series or retired Redwing100-series digital cellular modems.
- 19336** Type SMA-to-SMA Antenna Cable for the GPS device used with our GOES satellite transmitters.

### Other Installed Accessories

- 27814** CD100 Mountable Display with Keypad Installed in Enclosure Lid. The CD100 provides the same operation and functionality as the CR1000KD.
- 18132** CD295 DataView II Display Installed in Enclosure Lid. The CD295 is compatible with our CR200(X)-series, CR800, CR850, CR1000, and CR3000 dataloggers.
- 18166** Door Open Indicator Installed in Enclosure.

### Miscellaneous Accessories

- 10525** Two-pack desiccant holder that mounts to the inside of the enclosure lid.
- CS210** Enclosure Humidity Sensor.
- 6714** Desiccant 4 Unit Bag (Qty 20).
- 10614** Direct Wire Bury Splice Kit (two wires per kit) used when you need to extend the cables outside of the enclosure.



The CD100 Display with Keypad allows you to enter and view data without opening the enclosure. It is typically used with our CR800 and CR1000 dataloggers.

## Programming

A simple program that measures the sensors is included with the prewired enclosures. Customers can modify their program to output specific data, compare data, and make various calculations. For a fee, Campbell Scientific will develop a more complicated program.



The CS210 Enclosure Humidity Sensor contains an Elan HM2000-series precision bulk polymer relative humidity sensor. The desiccant should be exchanged when the sensor indicates an RH level of 40% or more inside of the enclosure.



The door switch indicator consists of an actuator and a magnetic switch—one is located on the case side, the other on the door side of the prewired enclosure. It monitors when the door of the enclosure is open.



When a CD295 is installed in an enclosure door, you can view real-time data in the field without opening the enclosure.

## Specifications

### Construction:

Non-corrosive, UV-stabilized, fiberglass-reinforced polyester; includes door gasket, external grounding lug, stainless-steel hinge, lockable hasp

### Color:

White (reflects solar radiation, reducing temperature gradients inside the enclosure without requiring a separate radiation shield)

### Internal Dimensions

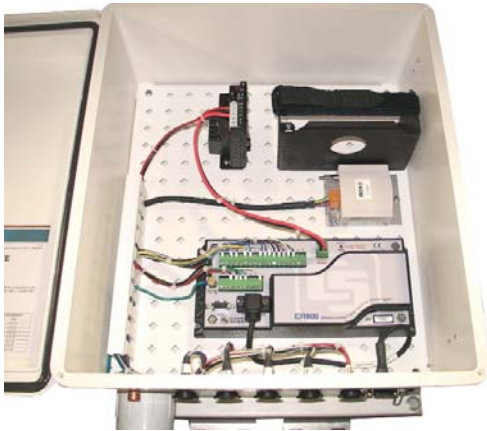
|             |                        |
|-------------|------------------------|
| PWENC12/14: | 12-in x 14-in x 5.5-in |
| PWENC14/16: | 14-in x 16-in x 5.5-in |
| PWENC16/18: | 16-in x 18-in x 9-in   |

### Weight (enclosure only)

|             |         |
|-------------|---------|
| PWENC12/14: | 11.2 lb |
| PWENC16/18: | 17 lb   |



The 7363 enclosure supply kit is shipped with our prewired enclosures. It includes desiccant, a humidity indicator card, cable ties, wire tie tabs, putty for sealing the conduit, and screws and grommets for attaching peripherals to the enclosure backplate.



The inside of the above PWENC12/14 shows a CR800 datalogger, CH100 regulator, a battery bracket (battery not shown), and a CS106 barometer. This PWENC12/14 has a conduit (-SC), five connectors (-C5), an RS-232 port (-1P), and a tripod mast mounting bracket (-MM).



The inside of the above PWENC12/14 shows a CR1000 datalogger, PS100 power supply, and an RF416 radio. This PWENC12/14 has a medium cable entry seal (-ME), three connectors (-C3), and a tripod mast mounting bracket (-MM).