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[www.cdione.com](http://www.cdione.com)

## CD 200 Wireless Weather Station



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# CD 200 Wireless Weather Station

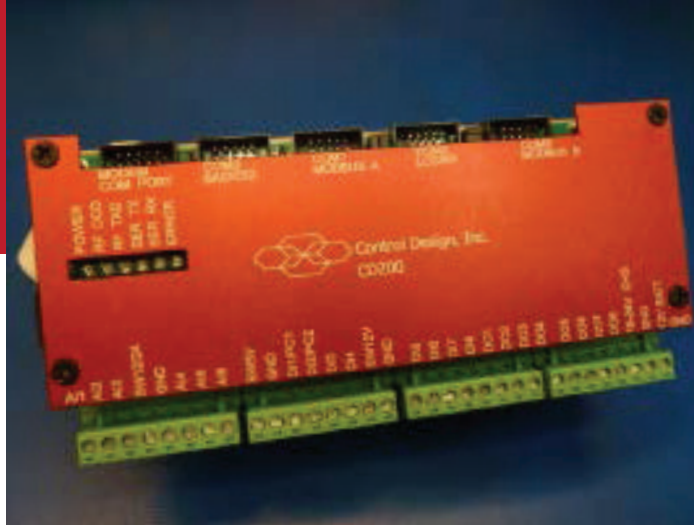
Complete Weather Station with Built-In Wireless Interface with Programmable Controller and Industrial Input/Output ports. Program and Sensors for Weather Measurement.

## Modem

- Long Range, Reliable Wireless Data Transfer using Tru-Lock SyncSM\*
- Packet Multi-Route/Auto-Return Store and Forward (SnF) with simple setup.
- Automatic Master, Slave or Repeater (SnF) operation.
- Modbus® RTU Protocol - Programming and Input/Output controls.
- Multiple RS232 Serial Ports for connection to external Sensors, PLCs, Etc.

## Input/Output

- 22 Industrial I/O Ports and SDI-12 for Remote Weather Monitoring.
- 6- 12 Bit, TVSS Protected, Analog Inputs
- 8- Opto-Isolated Digital Inputs
- 8- 1 Amp, Solid State Digital Outputs
- Charge Regulator Built-In.
- Low Power and Power Saving features for reliable solar use.
- Technician requested features for field proven, reliable performance.



## CD 200 Specifications

### I/O Ports

- 6 Analog Inputs - 12 bit resolution, 0-5volt or 4-20 ma
- 3 Battery, Charge and RSSI monitoring inputs
- 8 Digital Inputs - optically isolated to 4000 volts
- 2 Pulse Counter Inputs on DI1, DI2
- 7\*Digital Outputs - 1 amp solid state, pulse output capable
- 1 SDI-12 Port

### Included Sensors

- **VP4 SDI-12:** Vapor Pressure, Air Temperature, Relative Humidity, Barometric Pressure
- **5TM SDI-12:** Soil Moisture Content, Soil Temperature
- **SI-411 SDI-12:** Infrared Target Temperature, Infrared Sensor Body Temperature
- **SP-214 4-20ma:** Solar Radiation
- **260-2500 Pulse Output:** Rain Gauge
- **200-WS Pulse Output:** Wind Speed
- **200-WS 0-5 Volt:** Wind Direction

### Memory

96K Program, 32K Data Standard, **128K Data Optional**

**Weather Station Program Includes:** 1 Minute Data, 30 Minute Data, Min/Max Data, 24 Hour Average Data, Long-Term Data Logging  
Additional Sensors and Data Points can be added/deleted as needed.

### RF Data Speed

- 4800 to 6400 bps (Narrowband 12.5Khz Radio Channel)
- 4800 to 7200 bps (Wideband 25Khz Radio Channel)

### RF Encryption

64 bit over radio channel (US only)

### RF BER (conservative using Standard NB Radio)

1x10<sup>-3</sup> @ -113dbm, 1x10<sup>-6</sup> @ -110dbm,, 1x10<sup>-8</sup> @ -107dbm

### RF Packet Accuracy >

Greater than 99.999%

### RF Error Checking

- CRC-16 on RF packet, (CRC-16 on Modbus packet).
- LRC-8 on RF packet, Frame error check on each byte.

### Serial Port Communications

5 each RS-232 Ports: Modem, Basic52 Com0, Modbus/ASCII Com1, LCD/Keypad/Serial Com2, Modbus/ASCII Com3.

### Electrical

- Built in Charge Regulator up to 30 watts (~1.5 amps)
- 14vdc to 30vdc on Power Source input.
- 12vdc to 15vdc on Battery input.
- 12vdc to 24vdc Inverter Built-In**

### Current Drain

- ~50 ma maximum, idle & receive
- ~1,250 ma Transmit @5 Watts
- ~1,000 ma Transmit @4 Watts

### Dimensions

CD200: 7" Wide, 3.8" Tall, 2.625" Height  
NEMA4 Enclosure: 12" W, 16" Tall, 8" Deep

### Operating Temperature Range

Radio Operating Limits > -30 to +50 Deg. C  
CD200 Unit Limits > -40 to +85 Deg. C

*Modbus® is a registered trademark of Group Schneider Automation*

*\*Tru-Lock Sync is a Service Mark of Control Design, Inc.*

