



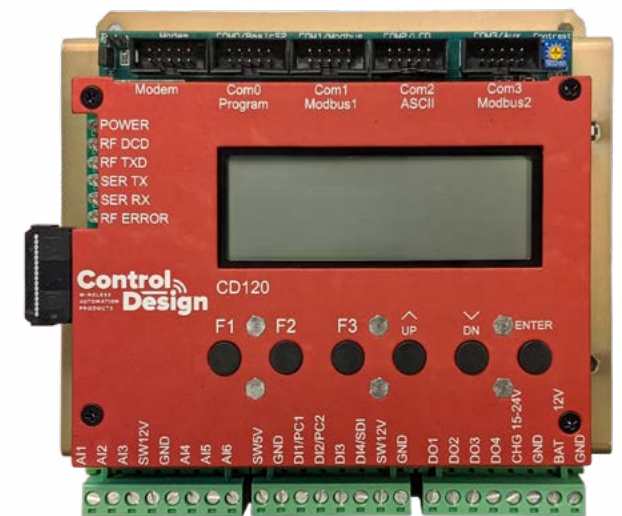
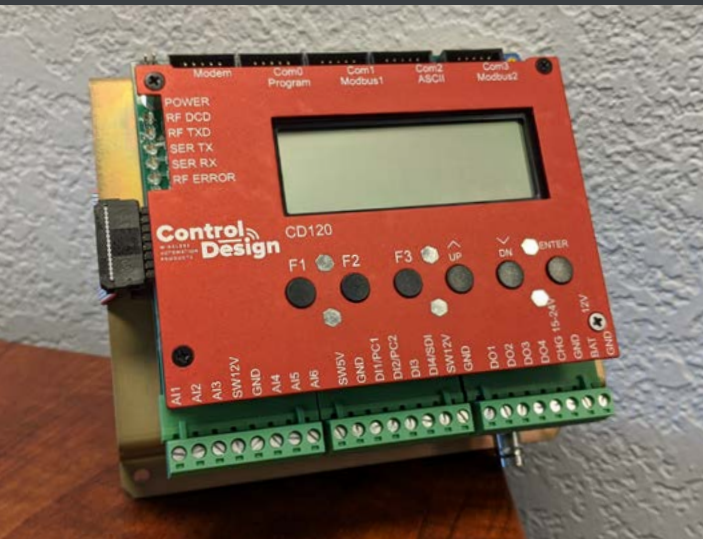
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CD 120 Radio-Modem & PLC Module



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CD 120 Radio-Modem & PLC Module

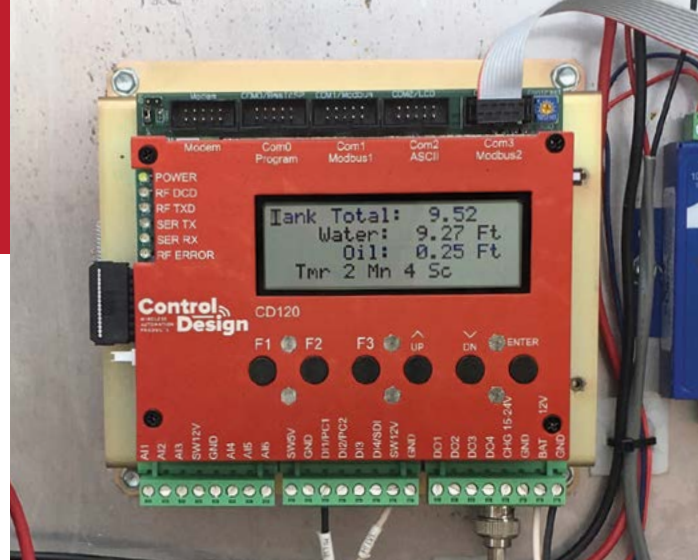
Designed for user-built systems to stand alone or complement any user-built RTU package. Wireless Interface with Programmable Controller and Industrial Input/Output ports.

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

- 14 Industrial I/O Ports for Remote Monitoring and Control.
- 6- 12 Bit, TVSS Protected, Analog Inputs
- 4- Opto-Isolated Digital Inputs
- 4- 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.
- SDI 12 Protocol



CD 120 Specifications

I/O Ports

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

Store and Forward (SnF)

Unique Multi-Routing/Auto-Return method. Any unit will operate as a SnF repeater. Up to 4 units can be routed through to reach destination. SnF is programmed in Master unit only. Repeaters and Remote slaves automatically route and return data.

Protocol

Carries any protocol transparently. Multi-Routes Modbus®
Responds to Modbus® RTU protocol for Programming and I/O ports.

Software/Programming

Modbus® compatible software, used for programming units, troubleshooting and automated data gathering, is included at no extra charge. Using a Modbus RTU® driver, the CD110 is compatible with any off-the-shelf HMI or similar Software.

Modbus® is a registered trademark of Group Schneider Automation

Tru-Lock SyncSM

Continuous synchronization between Sending and Receiving units. Tru-Lock Sync insures fewer retries, longer distances and many years of long term stability of the Radio-Modem.

Memory

96K Program, 32K Data Storage

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)

1x10-3 @ -113dbm, 1x10-6 @ -110dbm, 1x10-8 @ -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/Serail 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.

Current Drain

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

Dimensions

6" Wide, 5.5" Tall, 2.85" Height

Operating Temperature Range

Radio Operating Limits > -30 to +50 Deg. C
CD120 Unit Limits > -40 to +85 Deg. C

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

