



# CENTRON<sup>®</sup> II

CENTRON C12.19 C2ST, C2SD, C2SL

Itron introduces the second generation CENTRON, a solid-state single phase meter that allows utilities the capability to connect and disconnect service remotely without a service call from field personnel.

With this solid-state meter, Itron presents the CENTRON platform with Hall Sensor technology for residential metering that offers your utility the best in metering technology proven to easily and affordably expand as your business needs change.

The service switch feature available in this new meter for residential markets is designed for two-way communications. Mass deployments provide functionality that helps utilities to lower field service costs, improve credit management, and enable prepaid metering.

This ANSI C12.19 compliant residential solid-state meter utilizes the ANSI Tables protocol in a Demand (C2SD), a Time-of-Use (TOU) module with Demand (C2ST), and a Load Profile module with TOU and Demand (C2SL) giving utilities the chance to collect and utilize more detailed information and better manage demand.

The CENTRON II C12.19 meter provides robust data storage capability to support time-of-use (TOU) pricing including Critical Peak Pricing (CPP) capabilities. In addition, the meter supports load profile data and

other data-intensive applications as well as smart grid requirements. Features include full two-way communication capabilities for offsite operation when used with OEM communications systems with a service-limiting remote disconnect and reconnect switch as well as the ability to program or partially reconfigure the meter remotely.

In addition to its remarkable typical accuracy of 0.3 percent, the CENTRON II meter delivers advanced voltage monitoring for power quality auditing and assurance.

## FEATURES

### Remote Disconnect

Optional 200 Amp remote disconnect switch is integral to the meter assembly and provides compact, non-discriminatory meter profile

### Load Profile

The C2SL module provides 144K RAM for up to seven channels of load profile data

### Bi-Directional Metering

Capable of measuring and displaying delivered, received, net, and unidirectional energy (kWh), Kvarh, and Vah delivered, received, and lag

### Non-volatile Memory

All programming, register, TOU and load profile data are stored in the EEPROM during a power outage. A battery maintains only the clock circuitry during a power outage

### Standard Features

- » Electronic LCD display
- » Polycarbonate cover
- » Optical tower
- » Customer Interface Button

### Option Availability

- » 200A remote service switch

### Optical Port Communication

- » Each module can be programmed to communicate at 28800, 19200, 14400 or 9600 baud through the optical tower

- » The optical port can also be disabled/enabled remotely via the head end system

### Voltage Measurement

- » On board voltage measurement allows for end of line voltage monitoring and residential voltage profiling for troubleshooting and diagnostics

The CENTRON II C12.19 meter supports the measurement of average voltage data, instantaneous voltages and tracks minimum/maximum voltages during each interval up to three phases. The interval data for each phase is compared with the configured thresholds at each EOI. Events are recorded for the first interval when a threshold is exceeded, when it returns to normal, and when it is exceeded again. To minimize recording excessive events, only one event is recorded when multiple successive intervals exceed thresholds.

### Temperature Measurement

Internal temperature monitoring in centigrade from the metrology every 1 second. This can be used for local device temperature status and profiling capability

### Technical Data

Meets applicable standards:

- » ANSI C12.1 - 2008
- » ANSI C12.20 (Class 0.5) - 2010
- » ANSI C12.18 - 2006
- » ANSI C12.19 - 2008
- » ANSI C12.21
- » FCC CRF Title 47 Part 15.247 Subclass C
- » Industry Canada RSS-210

### Reference Information

- » CENTRON II Technical Reference Guide
- » Electricity Price Bulletin
- » Hardware Specification Form
- » Information developer kits are available that outline standard processes and easy-to-use interfaces that are available for rapid OEM development

### Product Availability

Meter Version	Class	Volts	Form
C2SD, C2ST. C2SL	20	120V	3S
C2SD, C2ST. C2SL	20	240V	3S
C2SD, C2ST. C2SL	20	240V	4S
C2SD, C2ST. C2SL	200	120V	1S*
C2SD, C2ST. C2SL	200	240V	2S*
C2SD, C2ST. C2SL	200	120V	12S/25S*
C2SD, C2ST. C2SL	320	240V	2S
*C2SDD, C2STD. C2SLD			

\*Optional disconnect switch 200A

### Specifications

Power Requirements	Voltage rating: 120-240 V (overvoltage capabilities up to 480V) Operating voltage: $\pm 20\%$ (60 Hz) Frequency: 50Hz, 60 Hz Operating range: $\pm 3$ Hz Battery voltage: 3.6 V nominal Battery operating range: 3.4 - 3.8 V
Operating Environment	Temperature: -40° to +85°C Humidity: 0% to 95% non-condensing
General Information	Demand interval lengths: Programmable from 1 to 60 minutes Demand calculation: Present, Previous, Cumulative, Continuous Cumulative, Projected, 5 Highest Peak Demand Energy calculation: Basic Wh and VAh Time: Line sync: Power line frequency Crystal sync: +0.01% @ 25°C; +0.025% over full temperature range Battery: +0.005% @ 25°C; +0.005% to -0.02% over full temp range
Display	Nine-digit liquid crystal display Annunciator height: 0.088" Six-digit data height: 0.4" Display duration: 1-15 seconds Three-digit code number height: 0.24" 3-segment electronic load indicator



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