C1SR R300 CENTRON®

The Radio Frequency Personality Module allows meter data to be collected automatically, helping to save time, improve reliability, increase accuracy and ensure data security.

The R300 IDM High Power is a radio frequency (RF) personality module based on the CENTRON solid-state metering platform. Kilowatt-hours and tamper data are reported through RF transmissions. The R300 IDM High Power module provides both baseline and advanced data collection functionality, including interval data recording and enhanced tamper reporting capability. The R300 IDM High Power delivers the ERT standard consumption messages (SCM) to any of Itron's radio-based data collection technologies, including handheld computer, a vehicle-based mobile automated meter reading (AMR) unit such as the Mobile Collector, or a network data solution such as the Itron Fixed Network or MicroNetwork. In addition, the R300 IDM High Power is also capable of delivering interval data messages (IDM) to the Itron fixed Network AMR system to calculate ANSI standard demand, time-of-use (TOU), and load profiling information. The output level of the CENTRON R300 IDM High Power has been increased +20dBm above its predecessor, the R300 IDM. The higher-powered R300 is designed for particularly hard-to-read installations such as basements and below-grade locations, as well as gated communities, airports, and military installations. An additional benefit of the higher-powered R300 is a lower infrastructure cost; greater transmission distance equates to fewer repeaters and collectors.

The meter can be reset by using the ZRO-C2A device, which resets both the kWh register and tamper status counters. Itron provides all applications, related hardware and complete support to automate and ensure maximum efficiency in the installation process. Itron also provides easy-to-use file interfaces to support the upload and download of information to and from utility billing systems.

Energy RF Transmission

- Each RF transmission contains the unit ID number, unit type, energy usage, and tamper status, as well as the cyclic redundancy check (CRC) to ensure message integrity
- Transmit frequency: spread spectrum 910-920 Mhz
- Compatible with all Itron 900 Mhz handheld, mobile and fixed network data collection solutions, including Itron's premier AMR data collection suite
- Offers up to +20dBm of output power

Tamper Detection

The Itron patented method of tamper decection identifies:

- Power removal tamper (SCM/IDM)
- Meter inversion tamper (SCM/IDM)
- Reverse disk rotation (IDM)
- Power outage count (IDM)
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Technical Data

Meets applicable standards:

- ANSI C12.1 - 2001
- ANSI C12.10 - 2004
- ANSI C12.20 (Class 0.5) - 2002
- ANSI C62.45 - 1992
- IEC 61000-4-4
- IEC 61000-4-2
- FCC Part 15, Subclass C

Reference Information

Meets applicable standards:

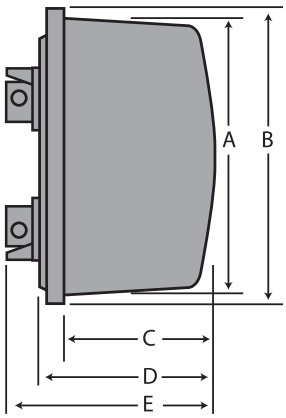
- CENTRON Technical Reference Guide
- CENTRON C1S Specification Sheet
- CENTRON C1SC Specification Sheet
- CENTRON C12.19 C1SD, T, L Specification Sheet
- Hardware Specification Form
- ZRO-C2A Handheld Resetter Operating Instructions

Product Availability

Meter Version	Class	Volts	Wire	Form	Digits/Mult	Energy Setting	Catalog Number
C1SR	100	120	2	1S	5x1	Undetented	G980678
C1SR	200	240	3	2S	5x1	Undetented	G980680
C1SR	320	240	3	2S	5x1	Undetented	G980682
C1SR	20	120	2	3S	5x1	Undetented	G980684
C1SR	20	240	2	3S	5x1	Undetented	G980686
C1SR	20	240	3	4S	5x1	Undetented	G980688
CN1SR	200	120	3	12S	5x1	Undetented	G980690

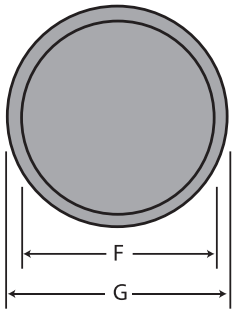
Dimensions

Polycarbonate						
A	B	C	D	E	F	G
6.29”	6.95”	2.7”	3.16”	4.53”	6.29”	6.95
16 cm	17.7 cm	6.9 cm	8 cm	11.5 cm	16 cm	17.7 cm
Glass						
A	B	C	D	E	F	G
6.42”	6.95”	3.03”	3.55”	4.9”	6.42”	6.95”
16.3 cm	17.7 cm	7.7 cm	9 cm	12.5 cm	16.3 cm	17.7 cm



Shipping Weights

Polycarbonate		
4 meter cartons	Approx. 8.9 lbs.	4.04 kg
120 meter pallets	Approx. 260-265 lbs.	117.936 kg
Glass		
4 meter cartons	Approx. 13.96 lbs.	6.35 kg
120 meter pallets	Approx. 335 lbs.	151.956 kg



Specifications

Power Requirements	Voltage rating: 120 V, 240 V Frequency: 60 Hz	Operating voltage: ±20% Operating range: ±3Hz	
Transmitter Frequency	910-920 MHz frequency hopping		
Operating Environment	Temperature: -40° to +85°C Humidity: 0% to 95% non-condensing		
Transient/Surge Suppression	ANSI C37.90.1 - 1989 IEC 61000-4-4 ANSI C62.45-1992		
Accuracy	ANSI C12.20 0.5 accuracy class		
General LCD Display	Five-digit liquid crystal display Data digit height: 0.4”	Annunciator height: 0.088” Electronic load indicator	
Characteristic Data	Starting watts: 5 watts		
Temperature Rise Specifications	Meets ANSI C12.1 section 4.7, 2.9		
Burden Data	Voltage Circuit: Voltage:240	Watts: 1.823	VA:7.294
	Current coil-self contained: Service: 3-wire	Test Current (amps): 30	VA:<0.50

Itron is a global technology company. We build solutions that help utilities measure, manage and analyze energy and water. Our broad product portfolio includes electricity, gas, water and thermal energy measurement and control technology; communications systems; software; and professional services. With thousands of employees supporting nearly 8,000 utilities in more than 100 countries, Itron empowers utilities to responsibly and efficiently manage energy and water resources.

Join us in creating a more resourceful world; start here: **www.itron.com**

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