



# CENTRON<sup>®</sup>

## Polyphase CP1SR R400

Itron has shipped over 88 million metering devices with ERT technologies since 1988 allowing commercial meter data to be collected automatically, helping to save time, improve reliability, increase accuracy and ensure data security. The CENTRON Polyphase CP1SR R400 meter takes this success to new levels allowing the ability to carry Itron's very popular technology into the future.

The CP1SR R400 is a radio frequency (RF) personality module based on the CENTRON Polyphase solid-state metering platform, enhancing operational efficiency, improving reliability of data acquisition, increasing data accuracy and ensuring data security. The CP1SR module provides both baseline and advanced data collection functionality, including interval data recording and enhanced tamper reporting. The CP1SR delivers the ERT standard consumption messages (SCM) to Itron's radio-based data collection technologies, including handheld computers, vehicle-based mobile automated meter reading (AMR) units such as the Mobile Collector 2.5 and MC3 collection systems, or network data collection solutions such as the Itron Fixed Network. In addition, the CP1SR is capable of delivering interval data messages (IDM) to the Itron Fixed Network to calculate ANSI standard demand, time-of-use and load profiling information. It also has the ability to reliably report outage detection using the positive outage and

restoration notification (PON) messages in conjunction with Itron Fixed Network 2.0. The CP1SR kWh register and tamper status counters can be reset using the ZRO-C2A handheld meter reseter.

Itron provides all applications, related hardware and complete support to automate and ensure maximum efficiency in the installation process for utilities. Itron also provides easy-to-use file interfaces to support the upload and download of information to and from utility billing systems.

### FEATURES

#### Standard Features

- » High power RF output
- » Fully factory programmed
- » Electronic LCD display
- » Polycarbonate cover
- » Test LED
- » Voltage indication
- » Service detection

#### Option Availability

- » Identification/accounting aids
- » Undetented, detented and net energy settings

#### 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 902-928 Mhz

#### Tamper Detection

The Itron patented method of tamper detection identifies:

- » Power removal tamper (SCM/IDM)
- » Meter inversion tamper (SCM/IDM)
- » Reverse energy (IDM)
- » Power outage notification (IDM)
- » Power restoration notification (IDM)

## Technical Data

Meets applicable standards:

- » ANSI C12.18 - 1996
- » ANSI C12.19 - 1997
- » ANSI C12.1 - 2001
- » ANSI C12.10 - 2004
- » ANSI C12.20 (Class 0.2) - 2002
- » FCC Part 15, Class B
- » FCC Part 15, Subpart C

## Reference Information

- » CENTRON Polyphase Technical Reference Guide
- » CENTRON Polyphase CP1S Specification Sheet
- » CENTRON Polyphase CP1SD, T, L Specification Sheet
- » CENTRON R400CD/CD3 Specification Sheet
- » CENTRON Polyphase Hardware Specification Form
- » ZRO-C2A Handheld Meter Resetter Instructions
- » Metering Pocket Guide

## Polycarbonate

A	B	C	D	E
6.29"	6.95"	3.84"	4.30"	5.67"
16 cm	17.7 cm	9.75 cm	10.9 cm	14.4 cm

## Polycarbonate

	Pounds (approx)	Kilograms
4 Meter Cartons	12 lbs	5.44 kg
96 Meter Pallets	323 lbs	146.51 kg

## SPECIFICATIONS

### Product Availability

Meter Version	Volts/ Service	Class	Kh (Pulse/Wh)	Form No.	Digits/ Mult	Energy Setting	Catalog
CP1SR	120-480V, 3-wire, 2 element	320	10.0	12S	5x1	Undetented	G981270
CP1SR	120-480V, 4-wire, 3 element	20	1.0	9/36S	5x1	Undetented	G981269
CP1SR	120-480V, 3-wire, 2 element	200	10.0	12S	5x1	Undetented	G981268
CP1SR	120-480V, 4-wire, 3 element	320	10.0	16S	5x1	Undetented	G981267
CP1SR	120-480V, 4-wire, 3 element	200	10.0	16S	5x1	Undetented	G981266
CP1SR	120-480V, 3-wire, 2 element	20	1.0	45(5)S	5x1	Undetented	G981265
CP1SR	120-480V, 4-wire, 3 element	20	1.0	9S	5x1	Undetented	G981212

### Specifications

Power Requirements	Voltage rating: 120 V-480 V Frequency: 60 Hz	Operating voltage: $\pm 20\%$ Operating range: $\pm 3$ Hz
Operating Environment	Temperature: $-40^{\circ}$ to $+85^{\circ}$ C Humidity: 0% to 95% non-condensing	
Transient / Surge Suppression	IEC 61000-4-4 ANSI C62.45-1992	
Accuracy	ANSI C12.20 0.2 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 current: 5 ma (Class 20) Starting current: 20 ma (Class 200/320)	
Temperature Rise Specifications	Meets ANSI C12.1 Section 4.7.2.	
Burden Data	Voltage 120 Voltage 240 Voltage 277 Voltage 480	Watts: 0.791 Watts: 1.09 Watts: 1.16 Watts: 1.91
		VA 1.22 VA 1.79 VA 2.18 wVA 3.57



Itron is a world-leading technology and services company dedicated to the resourceful use of energy and water. We provide comprehensive solutions that measure, manage and analyze energy and water. Our broad product portfolio includes electricity, gas, water and thermal energy measurement devices and control technology; communications systems; software; as well as managed and consulting services. With thousands of employees supporting nearly 8,000 customers in more than 100 countries, Itron applies knowledge and technology to better manage energy and water resources.

Together, we can create a more resourceful world. Join us: [www.itron.com](http://www.itron.com).

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