



OpenWay™ Cell Relay

introduction

OpenWay Cell Relay

The OpenWay Cell Relay is an ANSI C12.22 compliant relay that interfaces between groups of OpenWay CENTRON® meters and the OpenWay Collection Engine. The Cell Relay functions as a router, exchanging messages between the Collection Engine and meters over TCP/IP and Itron's OpenWay radio-frequency local area network (LAN). The OpenWay Cell Relay supports a variety of different IP backhaul communications options. In a standard configuration, the Cell Relay is housed in a lower compartment inside the OpenWay CENTRON meter. Installing the Cell Relay is as simple as installing any other OpenWay CENTRON meter.

features

Features of the OpenWay Cell Relay

Two-Way Communications

- > The Cell Relay is the router for the Itron RF LAN. It facilitates bi-directional communication of data between the OpenWay Collection Engine and the OpenWay CENTRON meters equipped with RF LAN.

Multiple Backhaul WAN Modules

- > The Cell Relay is available with the following wide area network (WAN) options:
 - Ethernet
 - GPRS
- > Additional IP-based communications that will be available in the future:
 - 1XRTT
 - Wi-Fi
- > WAN communications technology is provided with a daughter board, allowing upgrades to alternate backhaul technologies such as Wi-Max, as they become available.

ANSI C12.22 Compliant

- > As an ANSI C12.22 compliant relay, the OpenWay Cell Relay provides address resolution, message segmentation and other relay functionality available with the C12.22 Protocol.

Compact Package

- > The OpenWay Cell Relay is located in the lower compartment of an OpenWay CENTRON meter.
- > The Cell Relay has a serial connection to the host CENTRON meter.

Easy Installation

- > Because the Cell Relay is mounted in the OpenWay CENTRON meter, installation is as easy as installing a standard ANSI electricity meter.
- > The Itron RF LAN is self-configuring and self-healing; the meter continues to choose the best path back to the OpenWay Collection Engine, without user intervention.

ZigBee® Enabled

- > The OpenWay Cell Relay is ZigBee-enabled to allow for diagnostics and configuration tasks, as well as communications with other ZigBee nodes.

Power Outage Hold-up

- > A rechargeable battery provides up to four hours of hold-up time during a power outage to maintain communications with the Collection Engine. During the power outage hold-up time, the Cell Relay continues transmitting outage messages and alarms, and maintains WAN connectivity in the event of large scale outages impacting WAN communications.

Standard Features

- > Mounted in 2S OpenWay CENTRON meter
- > Polycarbonate cover
- > ZigBee communications

Option Availability

- > Identification/Accounting aids
- > Multiple WAN options including GPRS and Ethernet

Technical Data

Meets applicable standards:

- > ANSI C12.1 - 2001
- > ANSI C12.20 (Class 0.5) - 2002
- > ANSI/IEEE 62.45 - 2002
- > ANSI C12.10 - 2004
- > ANSI C12.22 - Draft
- > ANSI C12.18 - 1996
- > ANSI C12.19 - 1997
- > ANSI C12.21
- > IEC 61000-4-4-2004-07
- > IEC 61000-4-2-2001-04
- > FCC Part 15 Class B
- > FCC Part 15, sub-paragraph 247
- > PTCRB (GSM/GPRS)

Reference Information

- > OpenWay CENTRON Technical Reference Guide
- > OpenWay CENTRON Specification Sheet
- > Hardware Specification Form

specifications

Product Availability

Volts & Service	Meter Class	Test Amps	Kh (Pulse/Wh)	Form No.	Register Description
240 V	200	30	1.0	2S	OpenWay Cell Relay with GPRS
240 V	200	30	1.0	2S	OpenWay Cell Relay with Ethernet

Power Requirements	Voltage Rating: 240 V Frequency: 60 Hz, (50 Hz) Battery Voltage: 3.0V nominal, 4.8Ah Li-Ion	Operating Voltage: $\pm 20\%$ (60Hz) $\pm 10\%$ (50Hz) Operating Range: ± 3 Hz Battery Operating Range: 2.8 - 3.3 V
Operating Environment	Temperature: -40° to +85°C Humidity: 0% to 95% non-condensing	
Transient / Surge Suppression	IEC 61000-4-4-2004-07 ANSI C62.45-2002	
Accuracy	ANSI C12.20 0.5 accuracy class	
Time	Maintained by the network	
Characteristic Data	Starting Current: 20 mA (Class 200), 5 mA (Class 20)	
Burden Data	Metrology and Register Voltage 240 Watts 4.07 VA 6.51	Meter with Cell Relay Voltage 240 Watts 10.90 VA 18.08
Current Coil (self-contained)	VA < 0.5 VA	

specifications (cont'd)

Dimensions

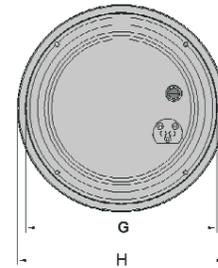
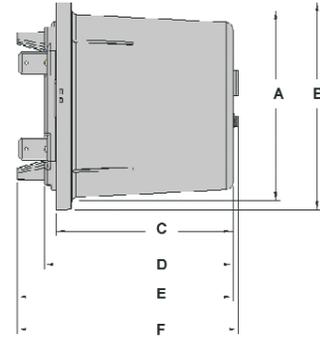
Polycarbonate Cell Relay OpenWay Meter

A	B	C	D	E	F	G	H
6.3"	6.9"	5.8"	6.5"	7.1"	7.3"	6.3"	6.9"
16.2cm	17.7 cm	15.0 cm	16.7 cm	18.3 cm	18.7 cm	16.2 cm	17.7 cm

Shipping Weights

Polycarbonate Cell Relay AMI Meter

	Pounds	Kilograms
4 Meter Cartons	16 lbs	7.26 kg
96 Meter Pallets	419 lbs	190 kg



profile

Itron Inc.

Itron Inc. is a leading technology provider to the global energy and water industries. Itron Inc. consists of Itron in North America and Actaris outside of North America. Our company is the world's leading provider of metering, data collection and utility software solutions, with nearly 8,000 utilities worldwide relying on our technology to optimize the delivery and use of energy and water. Our products include electricity, gas and water meters, data collection and communication systems, including automated meter reading (AMR) and advanced metering infrastructure (AMI); meter data management and related software applications; as well as project management, installation, and consulting services.

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