



Powering utility applications with
Open Standards
Including IP and 802.15.4/Zigbee



WebGate® WiFi iRIS IP Interface Integrated with the Sensus™ iCON™ Residential Meter

WebGate WiFi –



For utilities and others deploying WiFi networks as part of Advanced Metering Infrastructure (AMI) projects, the WebGate WiFi – 802.11b is a 'Plug and Play' solution.

muNet WebGate technology enables the electric meter to connect to WiFi networks and enables not only traditional electric metering applications, such as automated retrieval of kWh consumption, billing and interval data, and tamper detection, but also offers a wide range of options targeted at other utility applications. Connections to Water and Gas Meters by short-hop wireless solution implement a multi-utility service with a single network.

All functionality is seamlessly handled via the WiFi network by muNet's WebBot™ Central Control Web-based software.

WebGate WiFi iRIS IP Interface

- Integrated under the glass of the Sensus iCON meter
- Acquires time stamped interval metering data
- Stores data in non-volatile memory
- Transfers data via TCP/IP (HTTP) and XML protocols over WiFi Networks
- Full two-way communication capability
- Instant on-demand reading capability
- Demand information
- Optional features (consult factory for additional details)
 - Records data from water and gas meters via wireless links
 - Controls a 200 Amp power disconnect switch (consult factory)
 - Collects voltage measurements
 - Enables demand-side management via ZigBee based Thermostat and relay control

Metrology



Family of Sensus iCON residential meters

- Accuracy exceeds ANSI C12.20 (Class 0.2)
- kWh energy measurement, net metering, voltage monitoring
- Inversion proof
- ANSI compliance in performance and design



WebGate WiFi iRIS IP Interface

WebGate iRIS IP Interface

- Data Storage: > 24 hours * 15 minute reads
- Web interface: Standard Web queries, XML replies
- IP addressing: Static, DHCP
- Clock: Real-time, no backup, time server synchronized
- Encryption: AES 128-Bit, optional
- Operating temperature: -40C / +85C

WiFi – IEEE 802.11b Compliant Design Standard

Inquire about solutions for 802.11g/a Standards

- Chip Set: GSV / Intersil Prism III
- Data Rate:: 11, 5.5, 2, 1 Mbps (CCK, DQPSK, DBPSK) Auto rate control
- Channels: 11 Channels for US / CA (center frequency: 2412 to 2462 MHz)

Receiver

- Sensitivity: -84dBm at 11Mbps

Transmitter

- Output Power:
 - Min: 16dBm (39.8mW).
 - Typ: 18dBm (63.1mW).
 - Max:20dBm (100mW)

Other

- Security: 64bit/128bit WEP key, MAC filtering, supports hidden ESSID

Optional Features

200 Amp Disconnect Switch Control

- Current: 200A rating
- Relay type: Latching
- Options:
 - Power reset button
 - LED

WiFi to HomePlug Connection (call for details)

Voltage Sensor - Metrology Based

- Type: Recent, Maximum, Minimum, Average
- Range:
 - 2S Meter : 192 -- 288 volts *
 - 12S Meter: 96 – 144 volts
- Accuracy: +/- 2%

Wireless Water and Gas Meter Link

- RF Option:
 - Datamatic® FIREFLY®

Wired Water and Gas Meter Link

- Encoder types:
 - TouchRead,
 - ProRead, or compatible
- Pulse initiator types:
 - KYZ, or compatible

Metrology Specifications

Power Requirements

- Voltage Rating: 2S 240V, 12S 120V
- Frequency: 60 Hz

Accuracy

- Exceeds Accuracy Class 0.2

Burden

- Power Supply < 0.8 watts/7.9VA @ 240VAC
- Voltage Circuit per phase: 0.03 watts @ 240VAC
- Current circuit per phase 0.1 milliohms Typical @ 25°C

LCD Display

- Six-digit liquid crystal display
- Data digit height: 0.4
- Simulated mechanical disk emulation
- Power flow indicator
- kWh display with segment check option

Operating Environment

- Temperature: -40° to +85°C
- Humidity: 0% to 95% non-condensing
- Transient / Surge Suppression:
 - EN61000-4-4:1995 & EN61000-4-5:1995,
 - exceed voltage and current surge requirements per Category 4

Complies with Industry Standards

- ANSI C12.1 – 2001, ANSI C12.10 – 1997,
- ANSI C37.90.1 – 1989
- FCC Part 15

Characteristic Data

- Starting Watts: 5
- Temperature Rise Specifications:
 - Meets ANSI C12.1 Section 4.7.2.9

Tamper Detection Options

- If meter is reversed in socket, energy is added
- Tamper message can alternate with kWh reading

Models

Service	Class	Form
3-wire	200, 320	2S
3-wire	200	12S

Call about other Forms



Shown with 200 Amp Shutoff

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