



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



WebGate[®] Ethernet - FTTH iRIS IP Interface Integrated with the Sensus[™] iCON[™] Residential Meter

WebGate

Ethernet-FTTH



WebGate iRIS shown with optional
remote disconnect relay

For utilities and others deploying Ethernet, for example by Fiber To The Home (FTTH) as part of Advanced Metering Infrastructure (AMI) projects, the WebGate-Ethernet is a 'Plug and Play' solution.

muNet WebGate technology enables the electric meter to connect to Ethernet 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.

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

WebGate Ethernet - FTTH 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 Ethernet (FTTH) 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 Ethernet - FTTH iRIS IP Interface

WebGate iRIS IP Interface

- Data Storage: > 15 days * 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

Ethernet Enabled WebGate

- 10/100 BaseT Ethernet (Connects directly to UTP)
- auto-negotiation
- IEEE 802.3x Full-duplex flow control support
- LEDs: Link, Speed, Duplex
- IEEE 802.3u Compliant

Optional Features and Companion Products*

200 Amp Disconnect Switch Control

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

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®

muNet TotalAccess Load Management and In Home Customer Care Connections Full range of features to engage utility customers and improve operational efficiencies

Thermostat

- Dimensions : 5.5" W x 3.75" H x 1.1" D
- Power: 24 VAC
- Programming: 5-1-1 programming
Heating and cooling

Customer Messaging

- Use with 200 Amp Disconnect for "Pre-Pay" Customer notification system
- Add to Thermostat for Curtailment notifications

Discrete Switches for In House Loads

- 240 VAC at 20 Amp Max In Conduit
- 120 VAC at 5 Amp Max Plug In

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

Models

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

Call about other Forms

Tamper Detection Options

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

Product Examples

WebGate – Meter



WebGate – Meter with 200 Amp Disconnect



Thermostat with Optional Messaging



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