

# AcuLink 810

Data Acquisition Gateway & Server

ACCUENERGY



## DESCRIPTION

The AcuLink 810 is a data acquisition gateway and server designed to collect data meters and sensors and distribute them to various energy management systems. Energy and sensor data are available to be stored locally or transferred to remote servers and controllers via IP-based network.

## FEATURES

- + Ethernet Gateway for Modbus RS485 and Digital Output Devices
- + Access Energy Information Remotely via Web Server, or Push to IP-based Master Devices or Software
- + Data Acquisition and Logging with 8GB On-Board Memory
- + Embedded Webserver for Real-Time Data and Easy Configurations
- + Controller/Master System can Poll Data from all RTU Devices via Modbus-TCP/IP Protocol
- + Dual Ethernet RJ45 Port and Wi-Fi Communication Channels
- + Enhanced Cybersecurity for Critical Infrastructure Deployment
- + Compact DIN Rail Mount Design
- + Track Energy Usage and Peak Demand
- + Quick and Simple Software-Free Setup
- + Emergency mode for Configuration, Data log management and firmware update.

## KEY FEATURES

### Data Collection

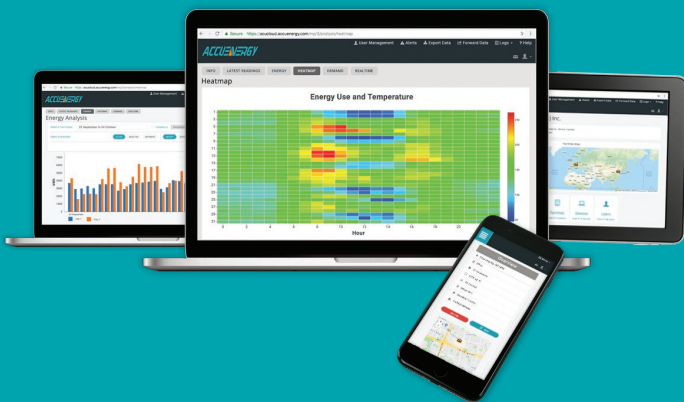
- + AcuLink 810 polls and logs data in user defined interval from downstream devices. All data logs are time-stamped and stored in onboard memory that are available to be downloaded from webpage or posted to remote server.
- + Data posting/pushing is available in HTTP, HTTPS, FTP in CSV or JSON format via Ethernet RJ45 port or WIFI network. External cellular modem can be connected to enable data post via cellular network.
  - Modbus RTU devices via RS485 port
  - Additional Modbus-RTU devices via USB port
  - 100 Modbus-TCP/IP devices via network
  - 8 Digital Inputs for pulse counter

### Embedded Web Server

- + Access real-time and logs from connected devices with AcuLink 810 web interface for an intermediate view of all collected devices with summary details, setup, alarms, and configurable upload channels.
  - Web-server accessible via ethernet or WIFI
  - SSL and TLS1.2 compliant with enhanced cybersecurity protection
  - Access each device real-time measurement reading.
  - Configure communication for downstream devices and upload channels.
  - Over/Under alarm monitoring for connected devices
  - No software required – all configurations are available in web pages.

### Communication Channels and Integration

- + The AcuLink 810 has a wide range of compatibility with existing software systems and control systems.
  - Protocols supported: HTTP, HTTPS, FTP, SMTP, NTP
  - Log file format supported: CSV and JSON
  - Easily integrate with any energy management system, billing software, efficiency analysis services.
  - Support Modbus gateway function that allows all RTU devices to be polled by remote Modbus master directly.
  - Dual RJ45 ethernet ports and WIFI connection enables simply connection to network and secure separate network connection.
  - USB: USB expansion port, available for serial converter to expand the communication channel.



## APPLICATIONS

AcuLink 810 is an adaptable and integral tool in data collection enabling user to see a more complete picture in essential power and energy application such as:

- + Building Automation Systems
- + Facility Monitoring Systems
- + Energy Management Systems
- + Campus Monitoring
- + SCADA Systems
- + Sub Metering
- + Measurement & Verification
- + Performance contracts and Benchmarking
- + Remote access energy information
- + Demand Response
- + Energy Audits
- + LEED/Energy Star Certification
- + Cost Allocation

## SPECIFICATIONS

### Inputs

#### DIGITAL INPUT (8 Pulse Counters)

Input Voltage Range	8~28 Vdc
Input Current (Max)	8mA
Start Voltage	15V
Stop Voltage	5V
Pulse Frequency (Max)	100Hz, 50% Duty Ratio (5ms ON and 5ms OFF)

### Power

#### POWER SUPPLY

This unit is to be sourced by a Class 2 power supply with the following output: 24VDC, 500mA min not to exceed 8A

#### ISOLATION

RJ45 Ethernet  
1500Vrms  
RS485 2500Vrms  
Digital Input 5000Vrms

### Hardware

Memory	8GB Onboard
LEDs	Power, Wi-Fi, AcuMesh, RS485, Ethernet

### Communication

#### PROTOCOLS

Modbus-RTU, Modbus-TCP/IP, HTTP, HTTPS, FTP, SMTP, NTP, BACnet-MS/TP, BACnet-IP, SNMP, Mbus, MQTT, AWS IoT, Google IoT

#### ETHERNET

2 X RJ45 10/100M Ethernet, full half duplex, auto polarity

#### USB

USB expansion port USB 2.0 Host

#### WI-FI

802.11b/g/n, 2.4GHz

#### SERIAL PORT

RS-485 Modbus, supports up to 32 external devices(expandable) Baud rate: 9600-115200bps

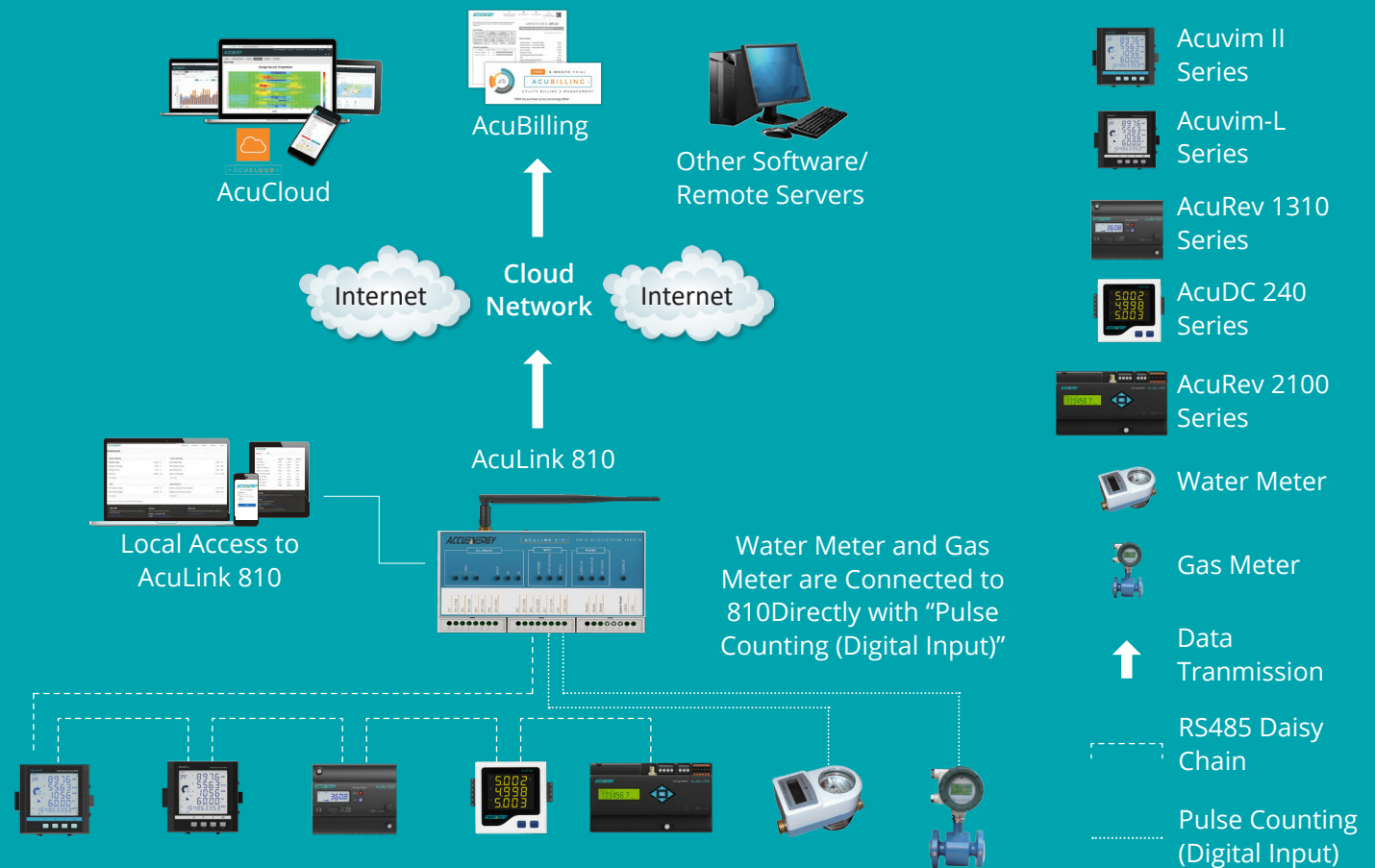
### Operating Environment

Operating Temperature -25°C to 70°C  
90%RH, non-condensing

### Physical

Size 6.3" x 3.5" X 1.23"(159.9mm x 90mm x 32.2mm)

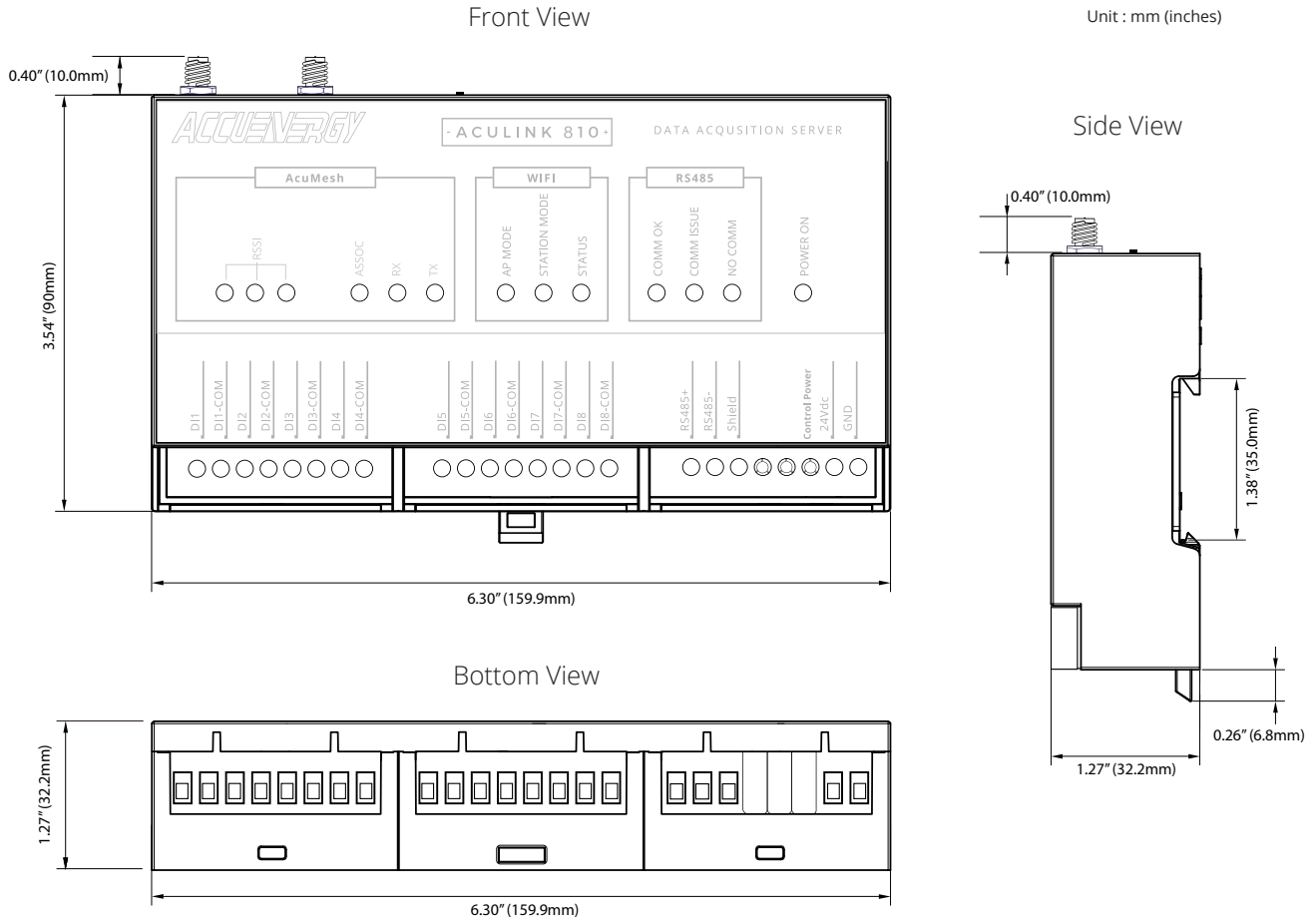
## ARCHITECTURE DIAGRAMS



# DIMENSIONS

## AcuLink 810 Dimensions

AcuLink 810's compact design allows for a more seamless deployment into existing systems; dependable design and resilient temperature range (-40 to 80°C) paired with simple industry standard DIN Rail design.



## ORDERING INFORMATION

Model	Details	Accessories
AcuLink 810-X:	Standard Data Acquisition Server	AcuLink-Acumesh-PSU: DIN-rail 100-240Vac to 24Vdc power supply
AcuLink 810-900:	Built-in 900MHZ AcuMesh	
AcuLink 810-868:	Built-in 868MHZ AcuMesh	

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 Specs Subject To Change Without Notice.



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