AcuLink 810

Data Acquisition Gateway & Server









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

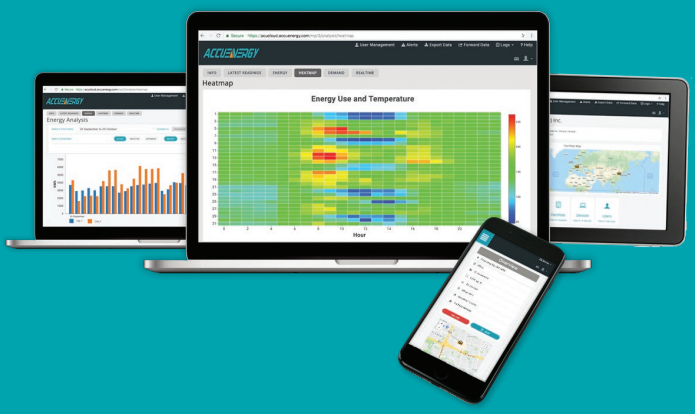
+ AcuLink 810 polls and logs data in user defined interval from downstream devices. All data logs are time-stamped and stored in onboard memory that are available to be downloaded from webpage or posted to remote server.
+ Data posting/pushing is available in HTTP, HTTPS, FTP in CSV pr JSON format via 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

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.

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.



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:

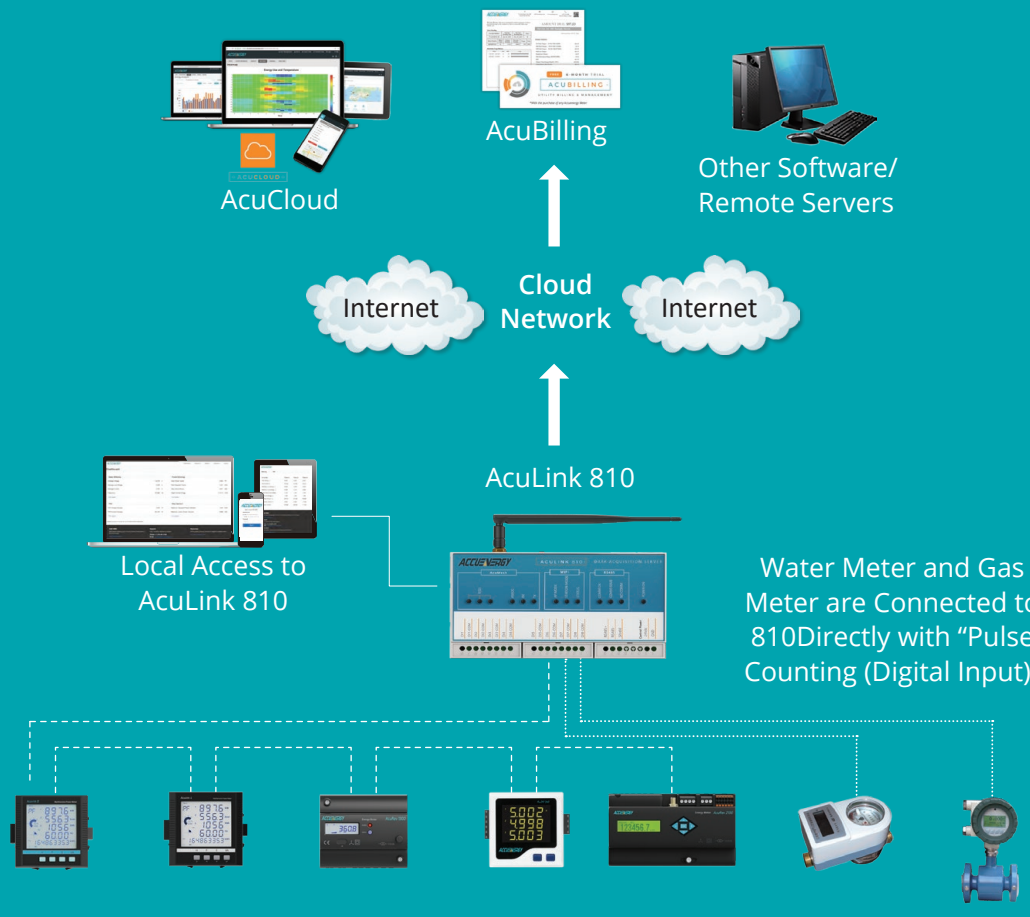
+ Building Automation Systems
+ Energy Management Systems
+ SCADA Systems
+ Measurement & Verification
+ Remote access energy information
+ Energy Audits
+ Facility Monitoring
+ Campus Monitoring
+ Sub Metering
+ Performance contracts and Benchmarking
+ Demand Response
+ LEED/Energy Star Certification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



LEGENDS



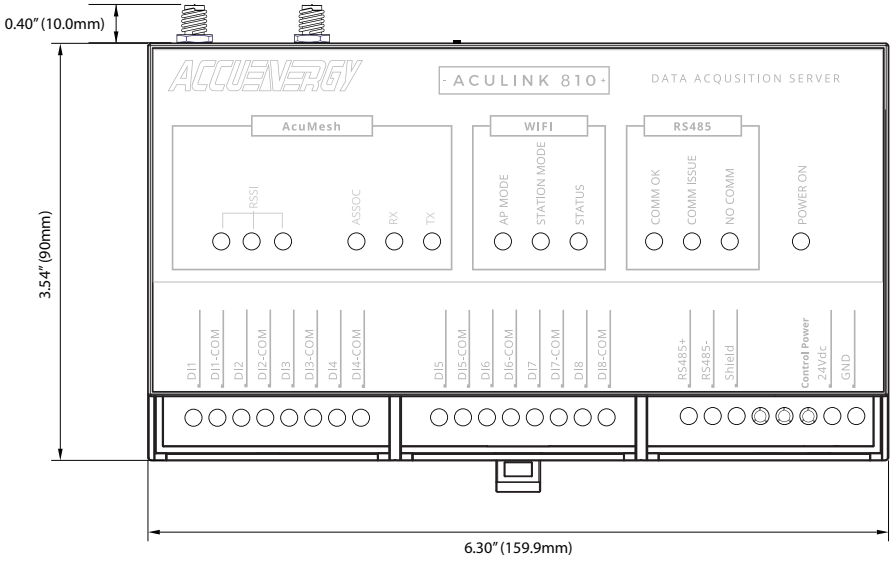
DIMENSIONS

AcuLink 810 Dimensions

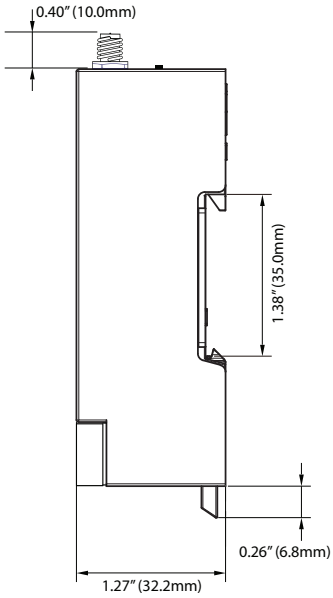
AcuLink 810's compact design allows for a more seamless deployment into existing systems; dependable design and resilient temperature range (-40 to 80°C) paired with simple industry standard DIN Rail design.

Front View

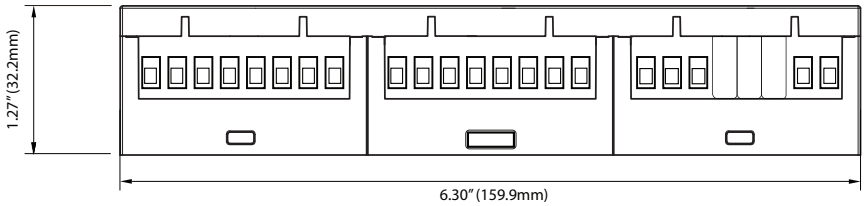
Unit : mm (inches)



Side View



Bottom View



ORDERING INFORMATION

+ Model	- Details
AcuLink 810-X	Standard Data Acquisition Server
AcuLink 810-900	Built-in 900MHZ AcuMesh
AcuLink 810-868	Built-in 868MHZ AcuMesh

+ Accessories	
ACULINK-RIK-PSU	DIN-rail 100-240Vac to 24Vdc power supply

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Specs Subject To Change Without Notice.

ISO 9001, 14001 & 45001 Certified