

ControlScope Power Meter Integration

Daintree Wireless Solution

ControlScope Power Meter Integration is part of the Daintree product portfolio, an open networked wireless controls solution for lighting and building control, monitoring, and optimization. Daintree controls provide a highly scalable solution to address evolving environmental regulations and transform spaces into intelligent environments for buildings of all sizes.

Consisting of three components, Daintree includes sensors and controls at the edge, an open API cloud platform, and software apps to help facility managers make decisions based on how space and assets are actually being used using a data-rich sensor network. Benefits of adding wireless Daintree controls include:

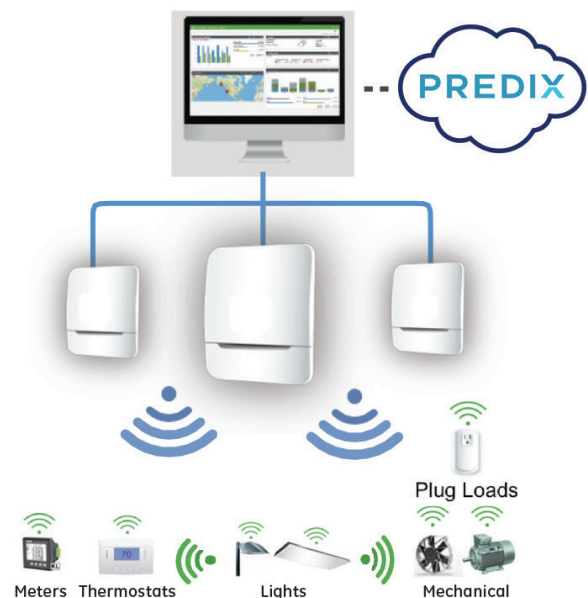
- Up to 50% Energy savings across lighting, HVAC, plugload, fans and more
- Visibility into energy usage, trends and insights to optimize operations
- Automated demand response, superior comfort and lower maintenance expense
- Regulatory compliance with Title 24; 2005 EnergyPolicy Act; 2007 Energy Independence and Security Act; 2009 DOE Regulations

Daintree Wireless Solutions Product Overview

The Daintree wireless building controls platform can be used as a power meter infrastructure, integrating standard, off-the-shelf power meters supporting the Modbus communications protocol. ControlScope will serve as the power meter's RTU (Remote Terminal Unit) or data logging equipment, where energy consumption data (kWh) from the power meters is provided through the ControlScope Manager (CSM) web application.

Power meters connect to a Wireless Area Controller (WAC), and can be deployed to measure the lighting load or to measure non-lighting loads, such as HVAC, manufacturing equipment, or other machinery – providing a highly cost-effective combined controls and power metering solution.

- When deployed to measure the lighting system, CSM can be configured to incorporate energy consumption data from power meters in place of other energy measurement sources.
- Use CSM to generate a variety of trending reports for each connected power meter, with the ability to export data in a variety of formats.
- Use power meters to establish an accurate facility energy baseline before enabling or deploying ControlScope control strategies.



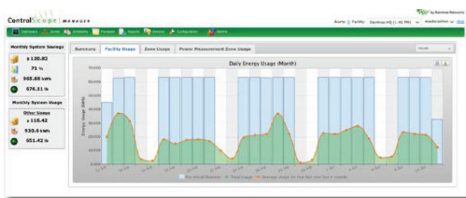
Daintree Network Architecture



ControlScope Power Meter Integration

CSM provides the data recording and logging functions for specific power meter models employing the Modbus protocol – the following models are currently supported:

- Acuvim KL (by Accuenergy)
- PowerScout 3 (by DENT Instruments, Inc.)
- PowerScout 24 (by DENT Instruments, Inc.)



Warranty

Current offers a limited Warranty across its Daintree Portfolio. The table below summarizes the Warranty terms. For additional information, please review the Limited Warranty Document on the Daintree Homepage.

Component	Warranty Period	Coverage Details
Daintree Software	1 year (on-premise installed Software) Subscription term (SaaS) 3 years	GE warrants that as long as all applicable fees due are paid, Daintree Software will substantially conform to the applicable published documentation and published specifications for the Warranty Period.
System Controller	3 years	100% parts coverage. Warranty for non-Daintree software (such as operating system software) is provided by the respective software; GE makes no warranty with respect to non-Daintree software.
WACs	5 years	100% parts coverage
Wireless Adapters	5 years	100% parts coverage
Wireless Devices	5 years	100% parts coverage, excluding batteries
Wireless Thermostats	2 years	100% parts coverage

Specifications

Protocol Interface	Modbus RTU (RS-485)
Supported Modbus power meters (Refer to corresponding company websites for power meter specs)	Accuenergy Acuvim KL Dent Instruments PowerScout 3 Dent Instruments PowerScout 24
# of power meters per WAC	20
Supported power meter measurements	kWh
Trending reports	Energy Comparison Energy Usage Average Energy Usage
Report export formats	PDF PNG CSV SVG USB
WAC interface	Connect to power meters via a USB to RS-485 converter cable.
Maximum wire length for RS-485 Modbus communications	~ 3,000 ft. (@ 9,600 baud)

Product Code	Product Description
RAE-ACUVIM-KL-D-60-5A-P1	Accuenergy Acuvim-KL Multifunction Power Meter, LCD, 100~415 VAC, 60Hz, 5A current input
RVR-AL500	Veris Solid Core CT, 50A to 5A
RVR-H6810-200A-5A	Veris Split Core CT, 200A to 5A
RDN-PS3P-US	Dent Instruments PowerScout 3 Power Meter
RDN-PS24-D	Dent Instruments PowerScout 24 Power Meter
RDN-CT-HSC-050-U	Dent Instruments Mini Split Core CT, 50A
RDN-HMC-0200-U	Dent Instruments Midi Split Core CT, 200A
RDN-R16-1310-U	Dent Instruments RoCoil Rogowski CT, 5-5000A
RGN-USB-RS485	Mini USB to RS485 converter

