smart process
control & instrumentation   DS800

Web Based Energy Data Logger

The DS800 DataStream is an Internet connected device for the collection, storage and transmission of meter data for energy management.

Built in Ethernet and optional Wi-Fi connectivity provide high speed, real time access to meter data via the internet or corporate IT network with the benefit of no ongoing communication charges. For remote sites, a GSM/GPRS option is also available.
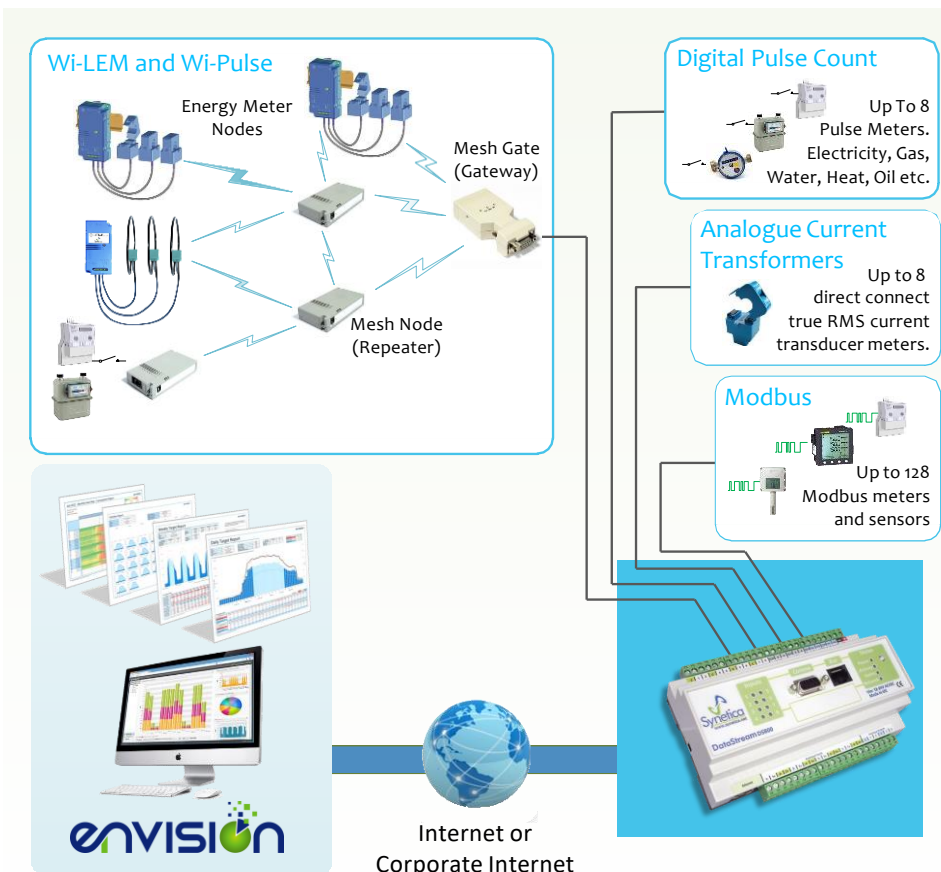
Powered by a high speed ARM® processor the DS800 has the capacity to acquire, process, record, present and stream data from multiple energy meters and environmental sensors.

Energy Metering

The DS800 is the most versatile energy logger on the market and can accommodate any combination of the multiple data inputs including:

- 8 pulse inputs for direct connection to energy meters.
- 8 Analogue inputs connect directly to split core current transducers.
- Wired & wireless Modbus RTU / Modbus IP meters & sensors.
- Wi-LEM mesh wireless meters and sensors.
- EnOcean wireless meters and environmental sensors.

Energy consumption is recorded at selectable intervals, typically ½ hourly. This data is stored on the DataStream and automatically sent to a central server, such as a Monitoring and Targeting package or a spreadsheet such as Microsoft® Excel® for further analysis.

Wi-LEM and Wi-Pulse

Energy Meter Nodes

Mesh Gate (Gateway)

Mesh Node (Repeater)

Digital Pulse Count

Up To 8 Pulse Meters. Electricity, Gas, Water, Heat, Oil etc.

Analogue Current Transformers

Up to 8 direct connect true RMS current transducer meters.

Modbus

Up to 128 Modbus meters and sensors

envision

Internet or Corporate Internet

DS800 DataStream

- Built in Web pages provide easy configuration and monitoring of your energy usage

- Up to 128 logged data values

- Eight S0 class pulse meter inputs

- Modbus RTU & IP communications

- EnOcean Wireless sensor networks

- Eight analogue CT inputs

- Reveals energy consumption in real time

- Records energy consumption at selectable intervals

- Data can be read via SNMP and Modbus IP protocols.

- Automatically streams data to host computer or Monitoring & Targeting (aM&T) software for further analysis

- Can be used stand alone or combined with Third Party hosted energy Monitoring and Targeting software enVision to provide a complete energy management solution

- Easy "Plug & Play" configuration & operation requires no specialist knowledge or IT skills to operate or deploy

- Assists with compliance of Building Regulations Part L

- Eligible for Enhanced Capital Allowances (ECAs)

Easy Configuration and Operation

The DS800 has been designed to be "plug & play" - easy to install, configure and operate, without any specialist knowledge or IT skills. Configuration, such as scaling parameters and email address, is carried out via a simple Web browser interface. Once configured, the DataStream automatically sends the logged data via email, Modbus IP, SNMP and / or FTP at the selected intervals.

Energy Profiling

Data logged by the DS800 can be presented as energy profile charts within a standard Web Browser. The built in interactive charts allow you to view the logged data in a variety of formats including line and bar charts. In many applications the built in energy profiling application can be used in place of a full featured Monitoring and Targeting (aM&T) application.

Rapid Setup & Test

The DS800 has built in menu driven configuration and test capabilities. This powerful module allows you to rapidly deploy and test your metering network and also the Internet connection end to end. All configuration parameters for the DS800 are maintained in a single configuration file, which can be automatically emailed on change to enable rapid and reliable device maintenance.

Hosted Data Analysis & Energy Management

Export: Data can be automatically exported via email, SNMP, Modbus IP and / or FTP to a third party data collection / analysis tool such as Microsoft® Excel® or an automatic Monitoring and Targeting (aM&T) package.

Analysis: enVision is our web based energy management solution that provides a complete aM&T, carbon reporting and asset management solution for single and multi site organisations.

- User tailored dashboards and reports within a Web browser
- Reveal previously hidden relationships to identify operational issues
- Benchmark energy performance against best practice Perform Degree Day analysis
- Set & review targets & Key Performance Indicators
- Prioritise & present data for real time decision making
- Automatically receive alerts and alarms via web pages, e-mail or SMS messaging

The DS800 Energy DataStream is fully integrated into enVision via the Third Party plug & play framework.

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Features/Benefits

Feature	Benefit
8 x Pulse Inputs	8 Pulse inputs for energy meters or digital status monitoring. (S0 class meter inputs)
Modbus RTU & IP Communications	Links to Modbus enabled meters to retrieve, log and forward Modbus meter readings
Flexible Communication Options	Can provide data to host system via FTP, Email, SNMP and Modbus IP for enhanced choice and flexibility
Wi-LEM Integration	Seamless support for integration, discovery, configuration and test of Wi-LEM wireless mesh metering
EnOcean Wireless	Optional link to EnOcean wireless sensors and third party EnOcean wireless Current Transformers (CT) to rapidly install additional wireless meter points
Ethernet Interface	Built in high speed 10/100 Mbit Ethernet links to the Internet or corporate Intranet
Wi-Fi Interface	Optional 802.11 a/b/g wireless Ethernet with WEP/WPA security reduces installation costs in Wi-Fi connected installations
GPRS/GSM	Optional GSM/GPRS communications for remote applications
Security	User ID/password security with read only and read & configure access levels
HTTP Web Server	Built in Web server for simple device configuration and data presentation
File System	Protected file system maintains logged data when powered down
CSV Files	Logged data may be exported via email / FTP / Web browser as CSV file format for use in spreadsheets and aM&T systems
Email Server	Built in SMTP to send logged data and configuration data via email
File Transfer	Built in file transfer (FTP) to send logged data to a host computer at configurable intervals
Time Synchronisation	Built in battery backed time clock with automatic synchronisation via the network (SNTP)
Energy Profiling	Built in Energy profiling presents interactive graphs & charts in a Web Browser to reveal energy wastage
Live Diagnostics	Rapid system setup with discovery of wireless meters and live meter test values
Remote Updates	Device may be updated remotely over the Ethernet network to reduce maintenance costs

For model numbers, options and latest prices, please refer to SYN-PDS-0002 or contact your local distributor.