Electrical power monitoring using paperless recorders
Easy and cost-effective power monitoring

A reliable way of monitoring your industry carbon footprint

Measurement made easy

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Energy efficiency

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Introduction

Many of those responsible for process plant are unaware of the electrical power they consume. In today's world where cost and carbon release issues are important, electrical power is an easy consumable to monitor, make visible and reduce consumption.

Electrical power monitoring can also be used as a maintenance tool to indicate faults in the process by the effect it has on the electrical consumption. Of vital importance is obtaining a baseline by monitoring and recording initial plant consumption.
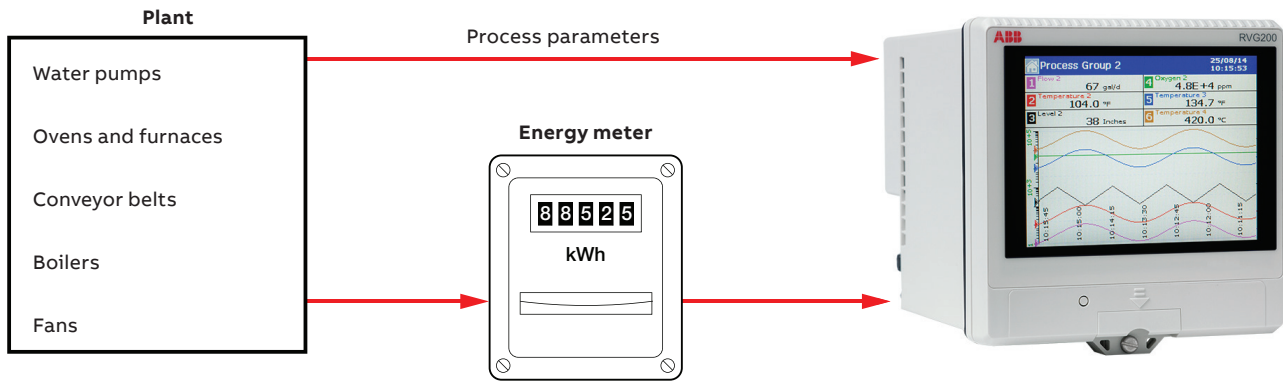
Making this usage visible on the plant floor raises awareness of operators and management alike. By reviewing the records, improvements can be made to help reduce costs and carbon emissions.

ABB's ScreenMaster series of recorders are an ideal recording system for this requirement as they provide a cost-effective display and communications system to typical electrical power monitors.

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The process

In this application, the electrical power consumption of different equipment in a plant (for example, water pumps, ovens and furnaces, conveyor belts, boilers, fans) can be monitored using an RVG200 and an energy meter.

The RVG200 acts as the local operator display and recording system for the process variables from the equipment in the plant. In addition, the energy consumption and the process parameters can be monitored easily from any PC in the plant using the RVG200's embedded webserver functionality.

Electrical power monitoring overview

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What ABB products are suitable?

ScreenMaster RVG200

The ScreenMaster RVG200 is a secure, easy-to-use paperless recorder. A touch screen featuring swipe gesture control provides fast and intuitive operation. When used with the totalizer function and 'batch', a total electrical consumption can be calculated giving a precise cost-per-batch of product.
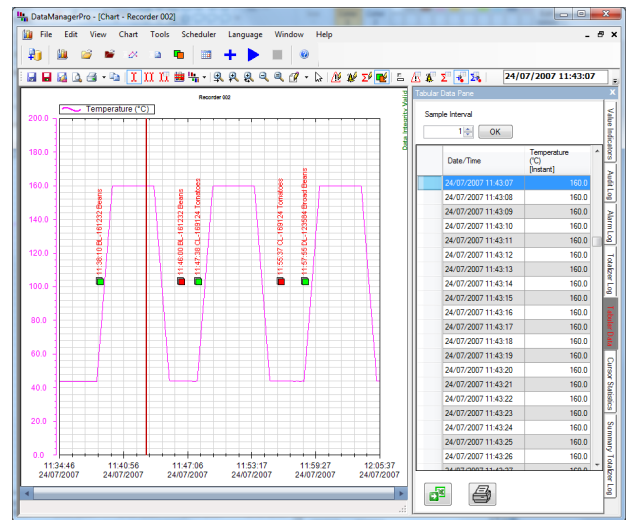
ScreenMaster RVG200 features include:
- Batch recording option enables simple recording and reviewing of batch processes
- Remote access and operation via Ethernet
- Automated process data management
- Flexible recording capability including alarms, totalizers, math and batch recording

ScreenMaster RVG200

DataManager Pro

- Data can be collected at regular intervals from instruments located in remote locations automatically and can be viewed at the convenience of your office desk
- Ability to export data and log information to excel spreadsheets
- Functionality to annotate alarm, audit and totalizer logs on the chart enables quick and easy analysis
- Quick and simple way of retrieving batch data. Data can be retrieved by entering the batch number, searching by type or product or by specifying the time and date of processing

DataManager Pro graphical / data pane on PC

ABB

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