

# Smart energy solutions

## Continuous data recording enables targeted optimization



Omlin Energiesysteme AG, Birsfelden, Switzerland, is an experienced specialist in state-of-the-art heating systems and has a skilled workforce of 14 involved in the planning, implementation and administration of their systems.

"Energy efficiency is our top priority. Endress+Hauser's Memograph M Data Manager can be used to monitor energy systems permanently and optimize them continuously. This guarantees that systems operate transparently and on a sustainable basis."

Martin Omlin  
Manager



Martin Omlin at the Memograph



Thermal solar system

**Omlin Energiesysteme AG provides innovative and individually tailored solutions to its customers. An intelligent monitoring system is part of any smart energy system comprising various heating components. The monitoring system records process values correctly and clearly presents them on a display.**

### Customer requirements

Omlin Energiesysteme AG's innovative heating systems consist of various heating components. To achieve a high level of energy efficiency within the overall system, it is essential to match individual components perfectly. In order to monitor, analyze and optimize the individual processes as well as the overall process, Omlin Energiesysteme requires a measuring and diagnostic system to record and save measured data continuously and to enable the data to be analyzed and displayed locally.

**The solution** Omlin chose the Memograph M RSG45 Data Manager as the central system component of the measuring and diagnostic system.

The acquired process values are clearly presented on the Data Manager display and reliably recorded. At the same time, the CO<sub>2</sub> reductions are calculated based on the recorded measured values.

### ✓ Adva Data Manager Memograph M RSG45

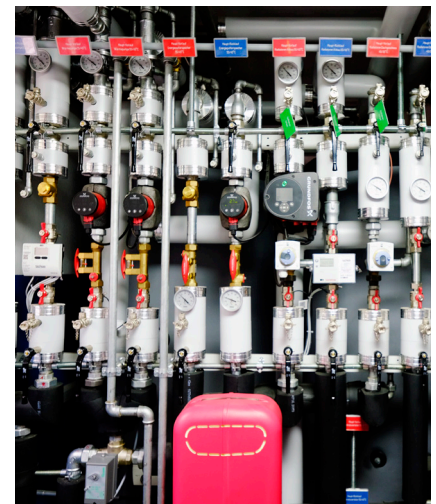
- Flexible and high-performance system to record measured data and calculated values continuously and reliably.
- Conventional interfaces, supports a large number of common communication protocols.
- Stored data can be read on a laptop or from a USB stick.
- Remote access to data



Memograph M RSG45



Heating pump



Heating distribution with measuring technology

✓ The smart energy system is permanently monitored and continuously optimized using the installed measured and diagnostic system. The data enable a high level of transparency both on the part of the end customer (operator) and also on the part of Omlin Energiesysteme – the success of the project has been documented in detail.

➔ **Examples of acquired and recorded measured values and calculated variables:**

- 10 temperature measurements (heat generation, heat storage, heat consumption, hot water consumption, sanitary circulation losses)
- 4 heat measurements to record the electric power (heat generation, heat consumption)
- 3 water meters with current flow rate to show hot water consumption and circulation flows
- 2 COP calculations (COP – Coefficient of Performance) to present the energy efficiency of the two heating pumps
- 7 electricity meters to show the electric power (heating pump electricity consumption, COP measurement, electric emergency heating elements, electric heating elements for frost protection)
- Recording of the energy output of the thermal solar system
- Calculation of the CO2 savings using integrated math functions based on the recorded measured values

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