

Control Units for District Heating



■ SPECIAL PRINT

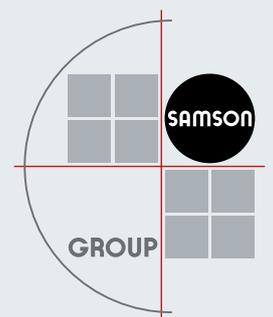
TROVIS HEATING NETWORK 60: Solution for Small Local Heat Supply Systems



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SAMSON AG, the Frankfurt-based manufacturer of control equipment, presented the latest devices and additions to its existing product range at the District Heating Days held at the end of 2013. Numerous representatives of district heating suppliers and station manufacturers took part in the event to gather information and exchange experiences. The editors of EuroHeat&Power talked to the SAMSON product managers Mr. Wolfgang Hesse, Mr. André Strauch and Mr. Rainer Schwan.

EHP: What was SAMSON's intention behind the 2013 District Heating Days and what was the event focused on?

Mr. Hesse: The event served several purposes. First of all, we wanted to establish a personal relationship with our customers. This meant that we offered guided tours through the production facilities of our Frankfurt headquarters to give our customers an insight into the wide array of products and components we manufacture in house. We also wanted to give presentations on the theoretical engineering background as well as show fully functional exhibits in our hands-on exhibition area. Among the products introduced to the participants were TROVIS HEATING NETWORK 60, smart controllers, electric actuators with process controllers and smaller valves balanced by diaphragms.

EHP: In which applications can TROVIS HEATING NETWORK 60 be used?

Mr. Strauch: The 2012 amendment of the German renewable energies legislation made using the waste heat from biogas plants mandatory, for example. This will impede building some remote plants but also make planning new biogas plants with recovery of the waste heat, e.g. in local heating networks, more efficient. SAMSON already presented the TROVIS HEATING NETWORK 60 system for local heating at the 2013 ISH fair in Frankfurt, which received much attention.

EHP: What does TROVIS HEATING NETWORK 60 do?

Mr. Strauch: In addition to automating heat generation, the system controls the heat distribution to the connected consumers as required. While others are still talking about smart metering, we have already installed smart district heating networks with features ranging from variable speed control for network pumps to forced charging of distributed buffer storage tanks. No programming skills are required to connect domestic installations. Operators are provided with a web-based visualization of the customers' systems including a historical database and functions for alarm management and consumption metering. All in all, we provide a solution tailor-made for small local heat supply systems.

EHP: Renewable energies are not the only hot topic, energy efficiency is another one. How can customers save energy with SAMSON?

Mr. Strauch: End users can save a considerable amount of energy if they take an active role in the process. To do that, they need to understand the technical background, which means the complex procedures must be presented to them in a clear and easy to understand way. SAMSON has acquired considerable expertise in electronic district heating controllers over the years. A characteristic feature of these controllers is their user-friendly interface. You do not have to read a manual to operate them. The most important data, such as current temperatures and set points, are just as easily accessible as the settings for holidays and times of absence. To round off the system, all units can be operated over the Internet, also using a smartphone.

EHP: Mr. Hesse also mentioned electric actuators with process controllers. What kind of actuators are they?

Mr. Schwan: As the name suggests, these electric actuators come with an integrated process controller. They also include control functions for different applications, such as domestic hot water heating, flow temperature control depending on the outdoor temperature, and cooling. We think these actuators are best suited for heating control and DHW heating on smaller stand-alone systems, i.e. in buildings and domestic installations, as well as when adding functions to existing systems that go beyond simple control. Of course, the electric actuators with process controllers are also available with fail-safe action so that they can be installed in systems that must be equipped with type-tested control valves.

EHP: What are the differences between using electric actuators with process controllers and compact controllers?

Mr. Schwan: It is not our intention to generally replace compact controllers with actuators that include controllers. Rather, we want to offer a compact, easy to install solution for applications where individual control loops are to be implemented or expanded and where convenient operation, parameter setting and indication of the measured variables directly on site are not

considered important. Of course, it is always possible, e.g. during start-up or operation, to set or change the control parameters with the TROVIS-VIEW software. This software, which can be downloaded from the Internet free of charge, provides a common user interface for SAMSON's digital devices. It can also be installed on mobile computers, in which case data are exchanged between the software and the control device over a connecting cable or Bluetooth®. During operation, the devices work with full autonomy depending on the sensor signals. The application is similar to a self-operated regulator with additional electric actuator.

“While others are still talking about smart metering, we have already installed smart district heating networks.”

EHP: Was there a focus on other established products for the district heating market apart from electrical equipment?

Mr. Hesse: Yes, self-operated regulators. Self-operated regulators with their rugged design and reliability laid the foundations for the success of SAMSON and continue to contribute considerably to our business. Our product range includes valves balanced by pistons, bellows and diaphragms.

EHP: Were there any new developments in the pressure-balanced valves sector?

Mr. Hesse: During the District Heating Days, we presented the valves in sizes DN 65 to 100 balanced by a diaphragm, which were added to the portfolio. This considerably extends our previous valve range, which included valves in sizes DN 125 and larger. We are now able to offer our customers control valves at a more competitive price.

EHP: SAMSON manufactures and markets important components for district heating in large quantities. How is the current market situation?

Mr. Hesse: The district heating market has always been in our focus and it will continue to generate important sales for SAMSON. Our products are known for their high quality, their reliability and their long service life. In Germany, we lead the market both in terms of sales and technical expertise; in Europe, we figure among the major players.

EHP: The 2013 District Heating Days were attended by visitors from the substation manufacturing and district heating supply sectors as well as by a large number of international participants active in district heating. How do you rate participation?

Mr. Hesse: Many of our customers seized the opportunity of getting information directly from the manufacturer. Our approach of presenting district heating equipment in production, in theory and in action paid off. This also showed in the feedback we got. In addition to the control equipment, the visitors were most impressed by the guided tours, which granted them a behind-the-scenes look at SAMSON's manufacturing world and quality management in action.

EHP: How did SAMSON benefit from the event?

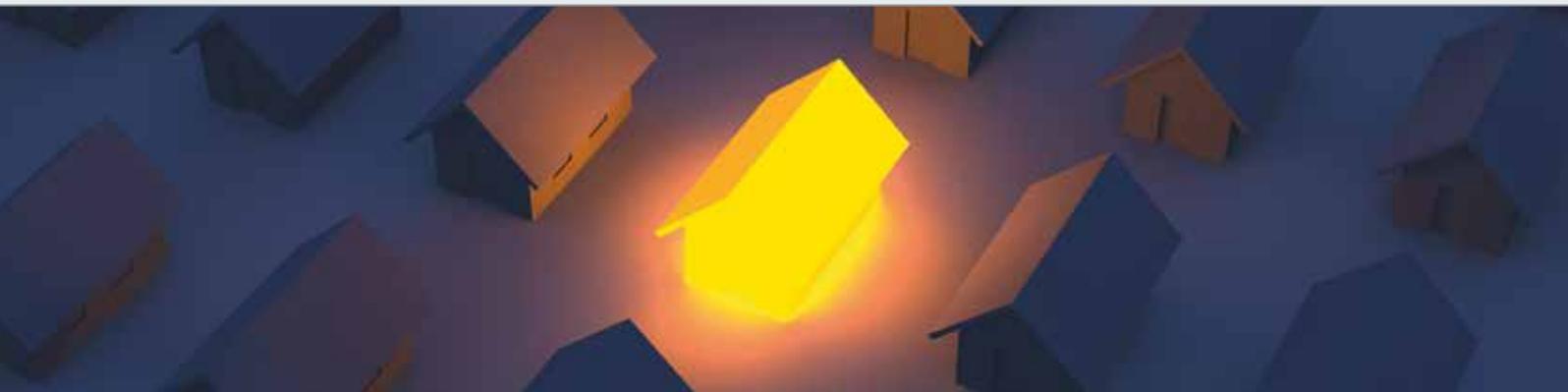
Mr. Hesse: The District Heating Days allowed us to strengthen the positive image of SAMSON, which has been established over the years by the excellent quality of our products and the worldwide presence of our numerous subsidiaries and local offices. Another contributing factor is that our worldwide after-sales service staff can be at the customer's site in no time at all. Our service response times are much shorter than those of our competitors. For our customers, this adds up to a perfect package comprising tailor-made control equipment with a long service life, optimum after-sales service and all this in the proven "Made in Germany" quality.

EHP: Thank you very much for this interview.



SAMSON product managers (from left to right): Mr. André Strauch, Product Management and Marketing Automation Systems and Heating Controllers, Mr. Wolfgang Hesse, Product Management and Marketing Self-operated Regulators and District Heating/Cooling, and Mr. Rainer Schwan, Product Management and Marketing Industrial Controllers and Electric Actuators

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