

## VOLUME CORRECTORS AND DATA LOGGERS

# Product variety for compact systems

Correcting the actual measured volume to the standard volume with the use of the physical values for temperature and pressure is the main task of any volume corrector. What differentiates the one corrector from the next can mainly be found in the additional functions on offer as well as the peripheral components and the application possibilities resulting from these. Whether you require a simple volume corrector or a high-tech data call-up system, the joint range of Elster-Instromet products opens up all possibilities.

The EK210, EK230 and EK260 from Elster are all integral components of the long-term information system LIS-200. In addition to these high-performance volume correctors, this system also includes battery-operated, extendable data loggers and flexible components for function extension and remote data transfer purposes. The latest system component, the TC210 temperature corrector, has just received official approval. You can find more details on this device on page 22. On top of this, the LIS-200 system also has hardware and software components which enable a fully-automatic data call-up, e.g. via a

modem server, as well as the standard parameterisation, archiving and evaluation functions.

The idea of a volume corrector family is based on modular hardware and software components. When it comes to measuring temperature and pressure, the devices all use the same sensors. The other features and functions are all built up around each other and can be further extended in the future. While the EK210 concentrates purely on volume correction, the EK230 also archives the meter readings and the analogue values. If required, this corrector can also be fitted with a serial interface in order to connect external modems or function extension units. This option is already integrated in the EK260 and can be configured as either an RS 232 or RS 485 interface, depending on the application it is to be used for. As an alternative to connecting the EK260 to a low-frequency pulse transmitter, it can also be connected to an Absolute-ENCODER on a gas meter. What's more, this can also be

TC210, EK210, EK230 and EK260 volume correctors



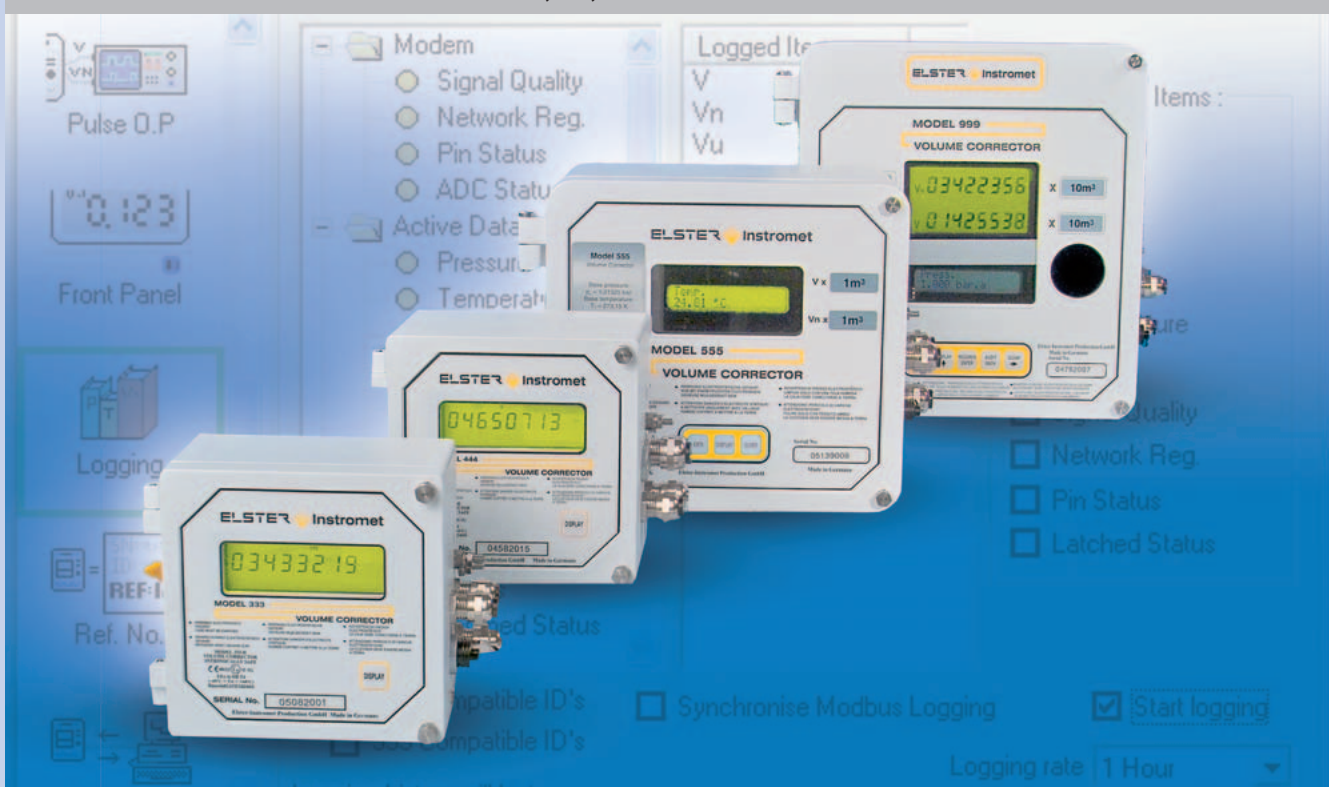
battery operated. Using the Absolute-ENCODER in connection with the volume corrector guarantees at all times the error-free transfer of the original mechanical meter readings for the actual volume. The protocol used for the data communication is based on the international standard IEC 62056-21 (IEC 1107). This means that the EK230 and EK260 could readily be integrated into many established call-up centres produced by other manufacturers.

The electronic volume correctors from Instromet also have impressive features. Suitable devices and solutions are available for all types of applications, from the most simple to the most complex and demanding.

output unit. This provides analogue 4-20mA signals corresponding to the actual or standard volumes, the analogue metering data or the conversion factor. The signal for the standard volume is formed by using the HF signal from the gas meter and the calculated conversion factor from the volume corrector. This achieves a higher accuracy than is possible when only the LF signal from the actual volume is used. Since it has three serial interfaces which can be configured completely independently from each other, the 999 model can be used in almost any application.

For the purposes of data communication or function extension, compatible serial interface units with a very compact design can be connected to

Model 333, 444, 555 and 999 volume correctors



The 333 model is used for volume correction without any data storage capacity and without remote data transfer purposes. Whenever it is necessary to connect up to SCADA systems or when the data communication is based on the Modbus protocol, then the 444 model comes into play. It supports both the Modbus/RTU and the Modbus/ASCII protocols. In order to ensure the highest degree of flexibility, the data elements, the corresponding indicators and also the data formats can be freely configured. The 444 is integrated in the MV-90 call-up system from the company Itron and this combination has proved to be particularly successful. An interesting additional function can be found when the 555 and 999 models are combined with a 999 analogue

the devices. In this way, all of the necessary peripheral components such as ex barrier, modem and power supply from the attached volume corrector are available in a suitable manner.

The volume correctors and additional components in the joint Elster-Instromet range can be used in a variety of ways and complement each other ideally for use in a wide range of applications and systems. All of this combined with the expertise and the experience of two successful organisations ensures that we will always find the best possible solution for every application.

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