

FLEXIBLE AND MODERN

The new TC210 temperature corrector

Exact measurements – in the sense of a fair billing process – should go without saying these days. In metering points where volume correction is not actually stipulated, a fixed value of 15°C is used for the gas temperature when preparing the invoice. That means, however, that if there is a temperature deviation of 3°C, the metering error amounts to 1%. This ‘little’ inaccuracy has a greater effect in the cold months of the year since the gas consumption is higher and the energy suppliers are the ones who suffer. Therefore, it makes sense if the exact gas temperature is in fact taken into account in the invoicing process.



For exactly this purpose, we have had the TC-90/T temperature corrector on offer for several years now. This, however, has now been replaced by the TC210. The TC210 temperature corrector is battery operated and can be used for billing purposes in accordance with the DVGW Guideline G685. In line with this standard, the TC210 can be used up to a meter size of G250 and a gas pressure of up to 1 bar. The constant gas pressure and the real gas factor can be programmed into the TC210 as constant values and are then taken into account in the correction process.

The volume pulse is taken via a cable from a low-frequency pulser integrated in the meter. The TC210 has a second pulse input which is used to detect any attempt at manipulation or can be used for the sake of comparisons. The gas temperature necessary for the correction is measured by a permanently-attached PT500 sensor. The length of cables for the pulser and the temperature sensor are variable and can be selected in accordance with the installation conditions on site.

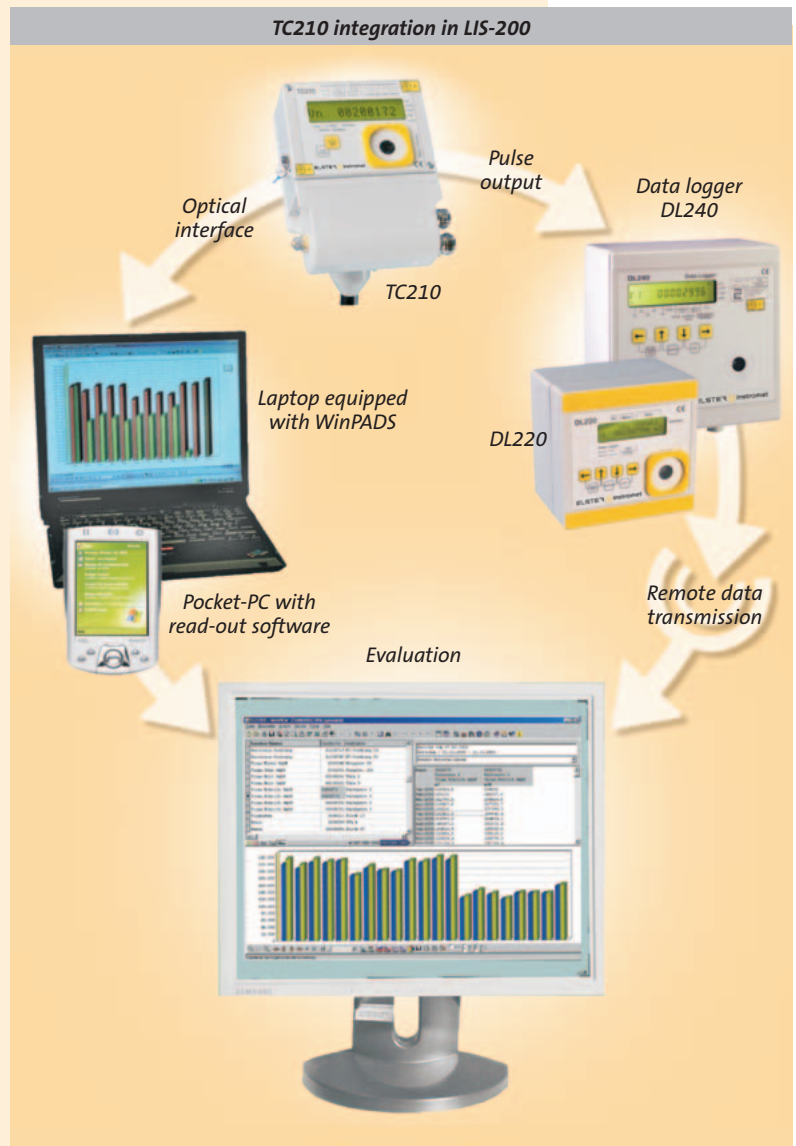
The operation of the device is so easy that when reading out the data at the measuring point there is no need for any instruction manual. One key is enough to display the values for the actual and standard volumes, the gas temperature, the status value and register.

The one-line, 12-digit alphanumeric display ensures transparency since all of the values are displayed in plain language together with the relevant unit of measurement. If necessary, it is also possible to show all values and parameters on a service level.

For data communication purposes the TC210 temperature corrector has an optical interface in accordance with IEC 62056-21 (formerly IEC1107). This interface is used to set the parameters and to read out the data using the well-known software package WinPADS. The readout can also be carried out with the help of a mobile readout device (e.g. a laptop or an AS-200).

A further feature of the TC210 is an archive which stores the readings for actual and standard volumes at monthly intervals. On top of this, any special events (e.g. setting the clock or adding a new meter or when limits have been exceeded) are also recorded. More than 500 archive lines are available to record the data. This data can then be read out via the optical interface and used for further evaluation with the WinLOOK software. It can also be printed out or exported to other software packages.

The TC210 also has two freely-programmable digital outputs which can be used to transfer consumption data or to send alarm warnings or messages. These outputs can be connected to a tariff device in order to record load profiles. The DL220 and DL240 data loggers are particularly suitable for this purpose and also offer the possibility to hook up the measuring point to a variety of communication channels within a remote data transfer system.



So, since the the TC210 has an optical interface and pulse outputs, it is possible to integrate the device into the LIS-200 long-term information system (see figure).

The new temperature corrector can be combined with a variety of gas meter types. Its flexible design and installation possibilities ensure that the device can be mounted directly onto the temperature thermowell, the index head or onto a wall.

With the TC210 we can offer a flexible and modern volume corrector which can help to increase measuring accuracy and lead to an improved invoicing process in favour of the energy supplier.

We can help you – just get in touch.

Rüdiger Pfeil

r.pfeil@elster-instromet.com