

BENEFITS OF ENCODER TECHNOLOGY

The “real” ENCODER in practice

If you haven't already been given the low down on the ENCODER then here it is again for you! The real ENCODER is an Absolute ENCODER which, at the moment the meter reading is taken, transmits this reading to downstream peripherals. Thanks to the Absolute ENCODER, any of those potential sources of error that arose with impulse technology are a thing of the past. What's more, our Absolute ENCODER doesn't even require a battery as it obtains power – at the time of reading only – from the downstream peripherals.

That's enough theory. In our last Profiles magazine we reported on the different potential uses of the ENCODER. We also mentioned that the legal situation relating to remote reading of household meters was, as yet, unclear.

In Scandinavia it's a different story. There, comprehensive field tests on the remote reading of household meters have been underway for a few years now; in many cases these have led to commercial use.

In the Netherlands, they are also one step ahead. An ordinance will soon enter into force that relates to the remote reading of meters in private houses. Currently this ordinance only exists in the form of an agreement between the Dutch Department of Trade and Industry and the energy suppliers, but once it has entered into force, the Dutch energy suppliers shall undertake to replace, within six years, all existing meters with ones that can be read remotely.

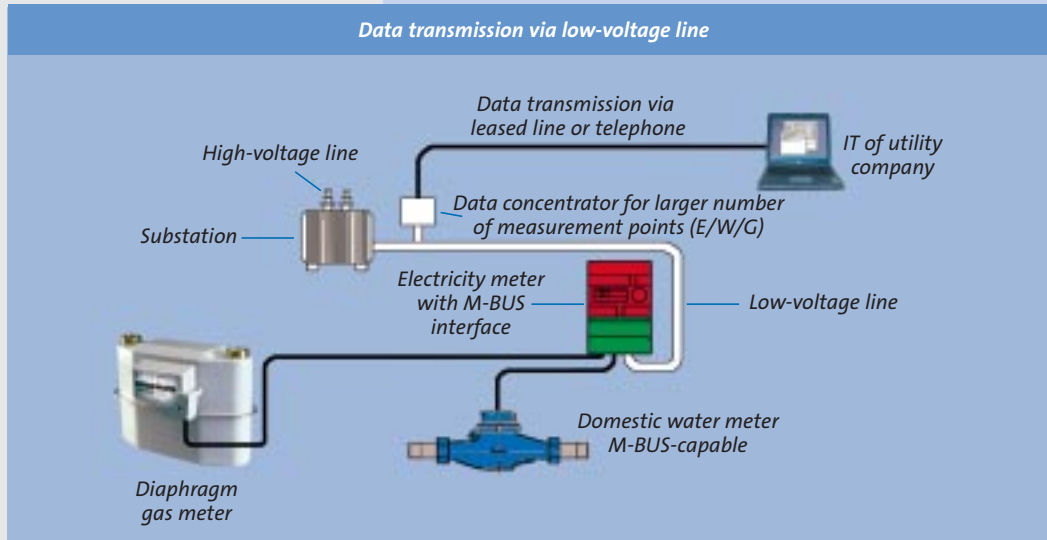
As already stated, most countries are not at that stage yet, but new requirements regarding energy efficiency can help us guess how these things are likely to develop.

Let's return to Holland now where, thanks to the existing installations which are ideal in that electricity, gas and water meters are all in one installation cabinet, a major Dutch energy supplier has gone for a remote reading concept in which the electricity meter functions as an M-Bus Master within the meter layout and first also reads the gas meter via the M-Bus interface.

Using data concentrators installed in local substations, data can be collected from several hundred households. To bridge the last mile, i.e. from the data concentrator to the customer's electricity meter, power line carrier communication is used. Although the latter is not yet used for broadband applications such as the Internet, it is fully adequate for the data streams involved in remote meter reading.

The advantages of using low-voltage networks are obvious: the infrastructure already exists. The energy supplier can retrieve the data via a telecommunications interface with the public telephone network. By the end of this year, over 20 000 households will be equipped with this technology. The gas meter equipped with the Elster-Instromet Absolute ENCODER is a reliable component in this concept, a concept whose advantages over impulse technology are obvious. A radio solution is available to integrate meters that are located outside the coverage of the electricity meter: naturally this still incorporates Absolute ENCODER technology.





Our future editions of Profiles will keep you abreast of other possible applications. By the way: the real ENCODER is absolutely only available in the Elster-Instromet product range!