

THE FIRST DVGW-APPROVALS HAVE BEEN ISSUED

EN1359 for Diaphragm Gas Meters

The EN1359 is the first all-European standard for diaphragm meters. It was first brought out in 1999 and soon replaced the national standards in all member states of the European Union. After some considerable preparation time and an approval process lasting more than one year we can now announce that for the first time, the DVGW (The German Association for Gas and Water Technology) has certified and approved diaphragm gas meters in accordance with EN1359.

Elster and Kromschroeder put forward all of their diaphragm meters, from BK-G1.6 up to G100, for approval. They passed all of the tests and the long-awaited certificates are expected to arrive in the first quarter of the new year. These approvals are also valid for the BK devices made by ELSTER-AMCO partners such as ABB-ELSTER (Argentina), ELSEL (Turkey), ELSTER-AMCO de Mexico, ELKRO Gas (Italy), Intergaz (Poland), Kromschroeder S.A. (Spain), Magnol (France) and Premagas (Slovakia).

What does EN1359 mean for the user? What are the advantages? First of all, in general the meters have to fulfil a lot more requirements (this of course depends on what national requirements there were before) and have to undergo very specific tests. The new requirements cover such things as robustness, corrosion protection, how scratch-proof and adhesive the paint is, the measuring behaviour over the entire temperature range and the resistance to chemicals and UV rays. The long-term stability is guaranteed by means of a 5000-hour endurance test (with all of the interim tests, this lasted almost one year), thus providing a far higher level of certainty than the old test, which lasted only 1000 to 2000 hours. All in all, many more requirements are now specified clearly.

There is one significant change for those customers who install their meters outside buildings: for the meter to be approved in accordance with EN1359 there must be proof that the metering behaviour remains constant over the whole gas temperature range. The permissible gas temperature range must be clearly marked,

unless the approval only covers a range from -5°C to $+35^{\circ}\text{C}$. If you use these meters in outside installations, you should be very careful. Sub-standard material is sometimes used in such cases, which in very cold conditions might not only lead to metering errors but might also destroy the diaphragm. Our meters are all approved for use in a gas temperature range of $t_m = -20^{\circ}\text{C}$ to $+50^{\circ}\text{C}$ and this is clearly marked on the meters. So, this ensures the necessary security.

So far, so good. Where's the catch? You very rarely get only advantages. There are no longer specifications concerning the connection sizes, except for the one-pipe connections. As far as this is concerned, there is no consensus throughout Europe. Well, would you like it if, because of your EN1359 meter, you were forced to change your installation sizes? Some features, which were required by national standards are also specified in EN1359 but are only optional. These include, for example, the magnetic coupling, and the fire-proof qualities and temperature compensation. In the future, these features must be explicitly requested.

Our experts have not only been passively involved in the EN1359 approvals, they were also an integral part of the standards committee and, in so being, have actually helped to create the new standard. If you have any questions concerning the new standards and their effects on your business, please do not hesitate to contact us.

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