Good things come to those who wait:

Mechanical TC for commercial diaphragm meters

Since the launch of the BK commercial diaphragm meters BK-G10 to BK-G25, it has been stated in the data sheets that the option for the mechanical temperature conversion (TC) was "being prepared". These preparations have now finally been concluded and Elster commercial diaphragm meters are planned to be available in this low-cost mechanical solution as of July this year. They will replace the TC-90/K and offer almost unbeatable value for money in this segment – particularly in terms of their life cycle costs.

As with the domestic diaphragm meters BK-G1.6 to BK-G6, the conversion function is provided by a bimetallic element in the crank plate. This solution, which has been used in millions of gas meters over the last 15 years, also had to be tailored to the special design features of the V6 measuring unit. Its details therefore also look different to those in other smaller units. On the BK-G25, both parallel V6 measuring units are also fitted with a conversion element. In contrast to solutions with an electronic conversion system, these units do not require additional batteries and therefore require absolutely no maintenance.

The approval for the BK-G10T to BK-G25T units has been issued in accordance with the new EU Measuring Instrument Directive (MID). The ambient temperature range under this Directive is -25°C to +55°C at a maximum.

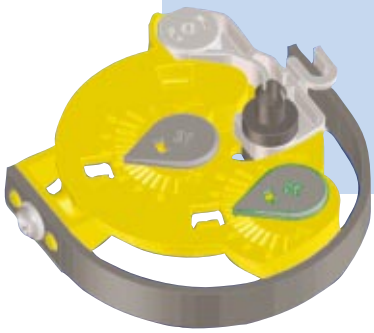

Fig. 1: CAD drawing of the V6 TC element

Fig. 2: TC measuring unit for commercial diaphragm meters BK-G10 to BK-G25

As standard the gas temperature range for volume conversion is -10°C to +40°C, but, on request, it can also be extended to -25°C to +40°C. Previous approvals for TC meters included ranges that are no longer permitted under the MID, for example -5°C to +35°C or -20°C to +50°C.

There are many reasons for using temperature-compensating gas meters in commercial and industrial applications. While domestic meters in many countries are often used in heated indoor environments, larger units are often installed in unheated rooms or outdoors. This results in massive differences to the established billing temperatures of 15°C, or in some places 20°C, which is a massive additional burden on the energy seller.

Fig. 3: No longer available: TC-90/K

For a G25 this can amount to around € 150 per year if the deviation is just 3°C to the defined billing temperature. This means that the meters will pay for themselves in less than one year.

With a declaration of conformity under the MID, the commercial diaphragm meters BK-G10T to BK-G25T can now be used for billing in every country in the European Union without the national approvals and national calibrations that used to be required. Ensure that you are not giving away money when you send out your gas bills!

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