BK-G10 and BK-G16

Main features
- MID conformity approved by PTB
- Approved to EN 1359 by German DVGW
- Flow rates from 0.1 m³/h to 16 m³/h (G10) 0.16 m³/h to 25 m³/h (G16)
- Cyclic volume 6 liters T-version 5.6 liters
- Maximum operating pressure 0.5 bar
- Fire resistant (HTB) up to 0.1 bar according to EN 1359
- High accuracy and long-term stability
- Powder coated pale grey to RAL 7035
- Standard pulse magnet, retrofittable LF pulser (l=0.1 m³/pulse)
- Not susceptible to contamination (RPF=0.8)
- Temperature range: standard -10 °C to +40 °C, other temperatures on request
- Temperature compensation available
- Intelligent index technology, Chekker system, Absolute-ENCODER and radio applications

Applications
- Media: natural gas, town gas, propane, butane, air *
- Industry: gas supply
- Tasks: gas measurement at operating conditions **

Brief information
The commercial diaphragm gas meter BK-G10 and BK-G16 meet the highest demands with respect to accuracy of measurement and safety. They combine innovative features with many decades of gas measurement know-how. The BK-G10 and BK-G16 are supplied in folded form as co-axial and two-pipe versions.

The stroke of the diaphragms is pneumatically stopped and therefore ensures both low bearing loads and a quiet operation. The stadium-shaped synthetic diaphragm is dimensionally stable. High-grade materials and components as well as the patented curve K-system ensure a high quality standard.

The K-system perfectly coordinates the movement of the valves with the actual gas flow to the measuring chambers. This ensures excellent linearity even when using small valves.

Due to the optimised slides, Q_{min} of BK-G10 and BK-G16 is stable and the gas meter is not susceptible to contamination (RPF 0.8 to BS4161). The measuring unit is adjusted by a patented needle-and-scale system.

Although the design of the BK-G10 and BK-G16 is very robust, the gas meters are still measuring instruments and as such should be handled with care.

Operating principle
Four measuring chambers are separated by synthetic diaphragms. The chambers are filled and emptied periodically, and the movement of the diaphragms is transferred via a gear to the crankshaft. This shaft moves the valves, which control the gas flow. The rotations of the gear are transferred via a magnetic coupling to the index.

The temperature compensation facility of the BK-G10T and BK-G16T ensures via a bimetallic that the stroke of the diaphragms is adapted to the current gas temperature.

* ... Other media: Inert gases to EN 437
** ... BK-G6T Measurement of temperature-compensated gas volume
BK-G10(T) and BK-G16(T): Compact commercial diaphragm gas meters

Dimensions and weights

<table>
<thead>
<tr>
<th>Type</th>
<th>Fig</th>
<th>Q\text{max} [m^3/h]</th>
<th>Q\text{min} [m^3/h]</th>
<th>V [dm^3]</th>
<th>Connection size</th>
<th>Dimensions [mm]</th>
<th>Weight [kg]</th>
</tr>
</thead>
<tbody>
<tr>
<td>BK-G10</td>
<td>2</td>
<td>16</td>
<td>0.1</td>
<td>6</td>
<td>40</td>
<td>2 3/4&quot;</td>
<td>323 85 334 218</td>
</tr>
<tr>
<td>BK-G10</td>
<td>1</td>
<td>16</td>
<td>0.1</td>
<td>6</td>
<td>32</td>
<td>1 1/2&quot;</td>
<td>250 320 85 334 218</td>
</tr>
<tr>
<td>BK-G10</td>
<td>1</td>
<td>16</td>
<td>0.1</td>
<td>6</td>
<td>32</td>
<td>1 1/2&quot;</td>
<td>280 330 108 405 234</td>
</tr>
<tr>
<td>BK-G10</td>
<td>1</td>
<td>16</td>
<td>0.1</td>
<td>6</td>
<td>40</td>
<td>2&quot;</td>
<td>280 330 108 405 234</td>
</tr>
<tr>
<td>BK-G10</td>
<td>1</td>
<td>16</td>
<td>0.1</td>
<td>6</td>
<td>-</td>
<td>1 1/4&quot; BS746&quot;</td>
<td>152.4 337 100 264 218</td>
</tr>
<tr>
<td>BK-G16</td>
<td>2</td>
<td>25</td>
<td>0.16</td>
<td>6</td>
<td>40</td>
<td>2 3/4&quot;</td>
<td>323 85 334 218</td>
</tr>
<tr>
<td>BK-G16</td>
<td>1</td>
<td>25</td>
<td>0.16</td>
<td>6</td>
<td>40</td>
<td>2&quot;</td>
<td>280 330 108 405 234</td>
</tr>
<tr>
<td>BK-G16</td>
<td>1</td>
<td>25</td>
<td>0.16</td>
<td>6</td>
<td>-</td>
<td>2&quot; BS746&quot;</td>
<td>250 351 108 405 234</td>
</tr>
</tbody>
</table>

* ISO 228-1 (if not further specified)  
Other dimensions on request

Typical error curve BK-G10 and BK-G16

- With calibration error limits at test room temperature according to MID and EN 1359
- Within the compensation range with error limits to MID and EN 1359

Pressure drop curve

Your contacts

Germany  
Elster GmbH  
Steinen Str. 19 - 21  
55252 Mainz-Kastel  
T: +49 6134 605 0  
F: +49 6134 605 223  
www.elster-instromet.com  
info@elster-instromet.com

Belgium  
Elster NV/SA  
Rijkmakerlaan 9  
2910 Essen  
T: +32 3 670 0700  
F: +32 3 667 6490  
www.elster-instromet.com  
sales@elster-instromet.com

Singapore  
Elster-Instromet Sdn. Bhd. (Singapore Branch)  
29 Tai Seng Avenue  
#06-05A Natural Cool Lifestyle Hub  
Singapore 534119  
T: +65 6284 7728  
F: +65 6848 9003  
sales@elster-instromet.com.sg

Copyright 2014 Elster GmbH  
All rights reserved.  
Subject to change without prior notice