

# BK-G25 and BK-G25T

## Compact commercial diaphragm gas meters



### Applications

- Media:** Natural gas, town gas, propane, butane, air \*
- Industry:** Gas supply
- Tasks:** Gas measurement at operating conditions \*\*

### Brief information

The commercial BK-G25 diaphragm gas meters meet the highest demands with respect to accuracy of measurement and safety. It incorporates both innovative features and gas measurement know-how of many decades. The BK-G25 are supplied in folded form as co-axial and two-pipe versions.

Two measuring units with four measuring chambers each are linked together. The stroke of the diaphragms is pneumatically stopped and therefore ensures both low bearing loads and a quiet operation. The synthetic diaphragm is dimensionally stable and stadium shaped.

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 with utilizing small valves.

Due to the optimised slides,  $Q_{\min}$  of BK-G25 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-G25 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-G25T ensures via a bimetallic element that the stroke of the diaphragms is adapted to the current gas temperature.

### Main features

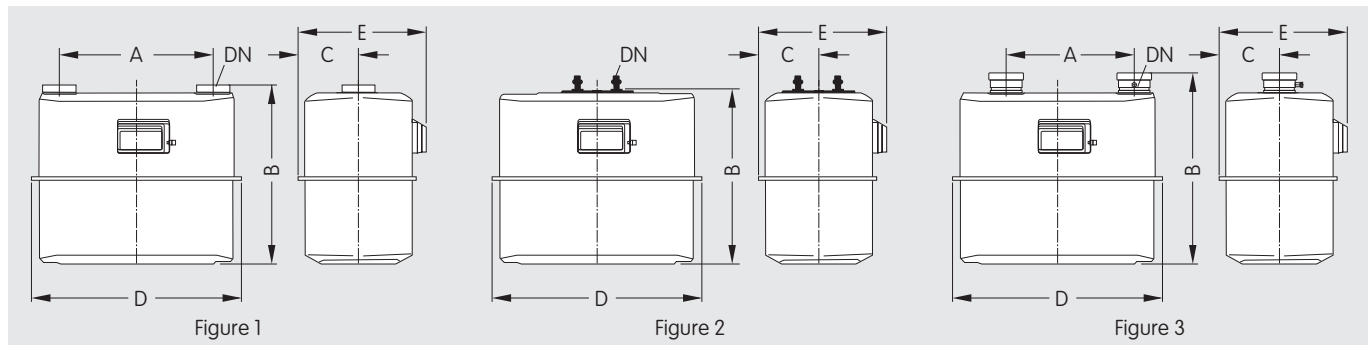
- MID conformity approved by PTB
- Approved to EN 1359 by German DVGW
- EU Approval by German PTB
- Flow rates from 0.25 m<sup>3</sup>/h to 40 m<sup>3</sup>/h
- Cyclic Volume BK-G25 12 litre  
BK-G25T 11.2 litre
- Maximum working pressure 0.5 bar
- Fire-proof (HTB) up to 0.1 bar according to EN 1359
- High accuracy and long-term stability
- Powder coated pale grey to RAL 7035
- Standard pulse magnet; retrofitable LF pulser (I=0.1 m<sup>3</sup>/pulse)
- Not susceptible to contamination (RPF = 0.8)
- Temperature range:  
Gas temperature: -25 °C to +40 °C, other temperatures on request
- Temperature compensation available
- Intelligent index technology, Chekker system, Absolute-ENCODER and radio applications

\* Other media: Inert gases to EN 437

\*\* BK-G25T: Measurement of temperature compensated gas volume

# BK-G25 and BK-G25T: Compact commercial diaphragm gas meters

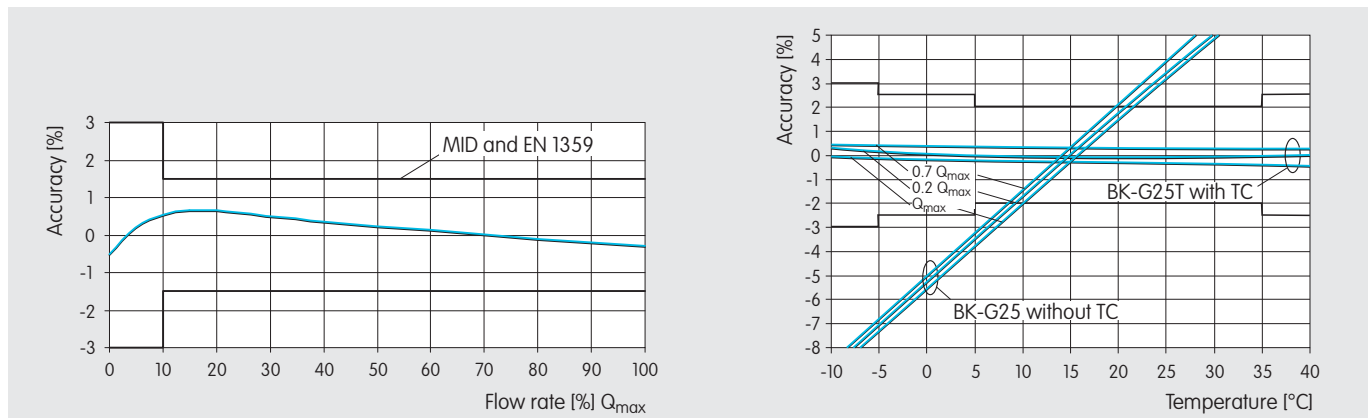
## Dimensions, flow rates, weights



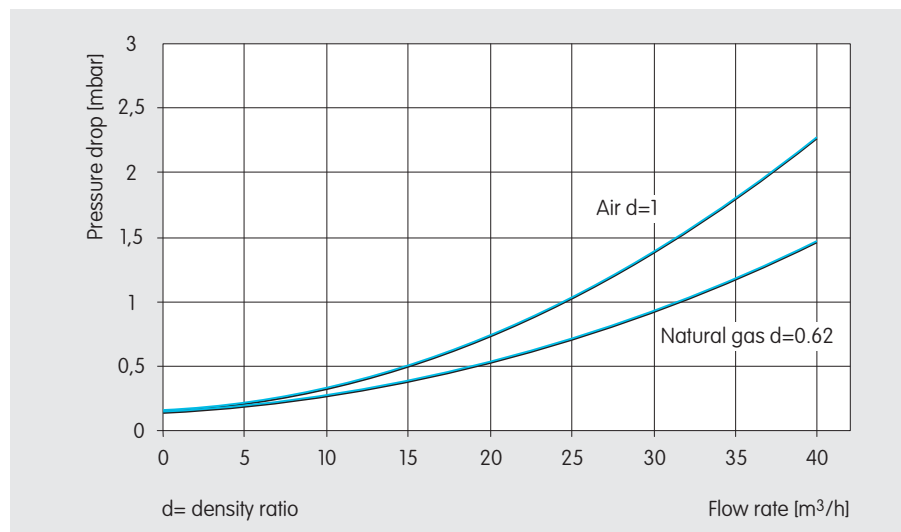
Type	Figure	Q <sub>max</sub> [m <sup>3</sup> /h]	Q <sub>min</sub> [m <sup>3</sup> /h]	V [dm <sup>3</sup> ]	Connection		Dimensions [mm]					Weight [kg]
					DN*	Thread*	A*	B	C	D	E	
BK-G25	1	40	0.25	12	50	2 1/2"	335	398	138	465	289	10.0
BK-G25	2	40	0.25	12	50	4 x M10	-	385	138	465	289	10.6
BK-G25	3	40	0.25	12	-	2" BS746	280	400	138	465	289	10.5

Other dimensions on request

## Typical error curve BK-G25



## Pressure drop curve



## Your contacts

Germany  
 Elster GmbH  
 Steinern Str. 19 - 21  
 55252 Mainz-Kastel  
 T +49 6134 605 0  
 F +49 6134 605 223  
[www.elster-instromet.com](http://www.elster-instromet.com)  
[info@elster-instromet.com](mailto:info@elster-instromet.com)

Belgium  
 Elster-Instromet N.V.  
 Rijkmakerlaan 9  
 2910 Essen  
 T +32 3 670 0700  
 F +32 3 667 6940  
[www.elster-instromet.com](http://www.elster-instromet.com)  
[info@elster-instromet.com](mailto:info@elster-instromet.com)

Singapore  
 Elster-Instromet Sdn. Bhd. (Singapore Branch)  
 160 Paya Lebar Road  
 #04-01 Orion@Paya Lebar  
 Singapore 409022  
 T +65 6247 7728  
 F +65 6247 7729  
[sales@elster-instromet.com.sg](mailto:sales@elster-instromet.com.sg)

**BK G25 EN04**

A11.01.2010