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 m³/h to 40 m³/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 (l=0.1 m³/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

DMS METERING SOLUTIONS

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

Dimensions, flow rates, weights

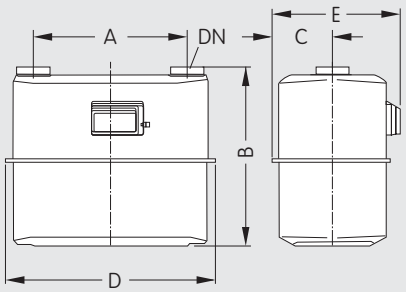


Figure 1

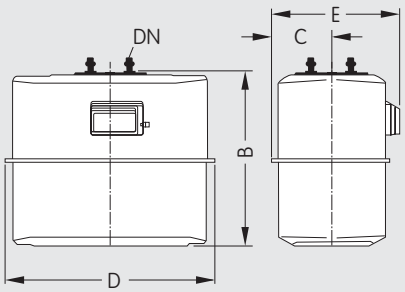


Figure 2

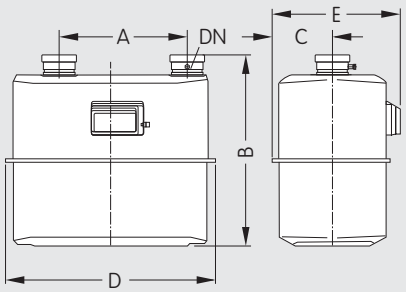
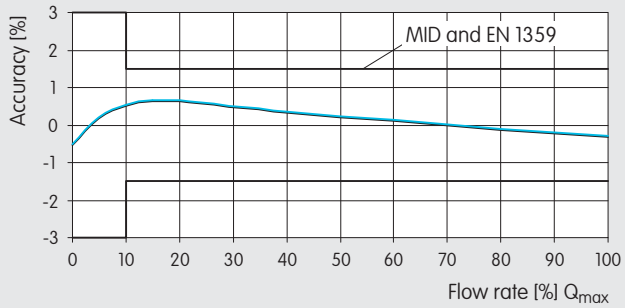


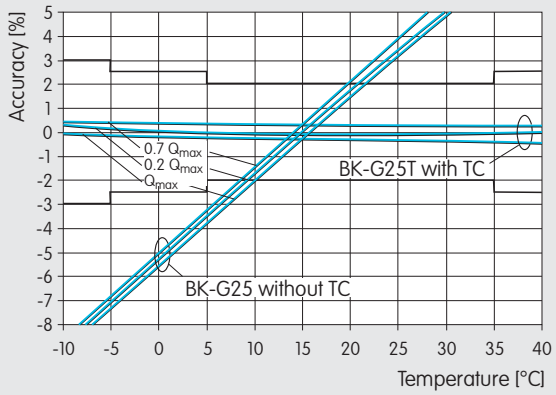
Figure 3

Type	Figure	Q_{max} [m³/h]	Q_{min} [m³/h]	V [dm³]	Connection		Dimensions [mm]					Weight [kg]
					DN*	Thread*	A*	B	C	D	E	
BK-G25	1	40	0.25	12	50	2 ½"	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

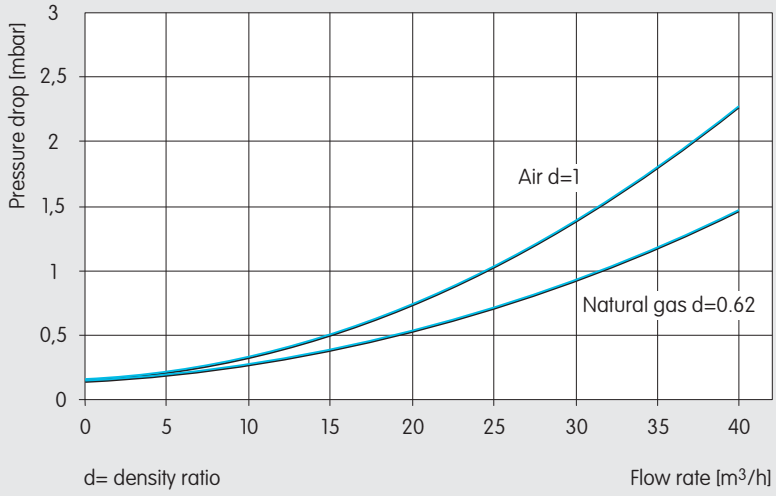
Other dimensions on request

Typical error curve BK-G25





Pressure drop curve



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