

BK-G10 and BK-G16

BK-G10T and BK-G16T 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 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 bi-metallic element that the stroke of the diaphragms is adapted to the current gas temperature.

Main features

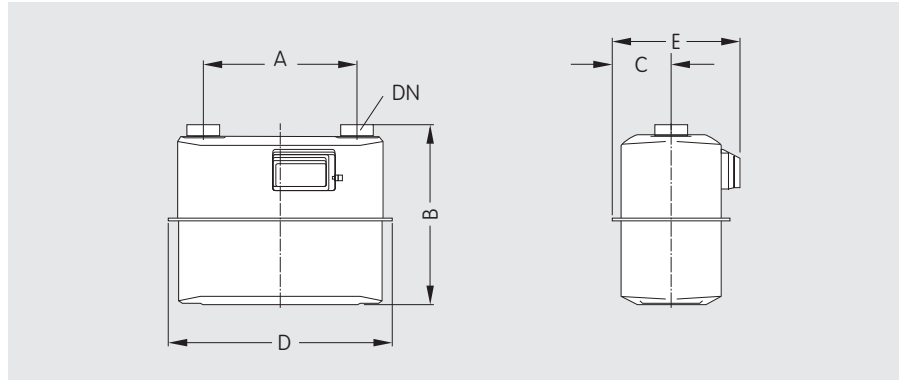
- MID conformity approved by PTB
- Approved to EN 1359 by German DVGW
- Flow rates from
0.1 m³/h to 16 m³/h (G10)
0.16 m³/h to 25 m³/h (G16)
- Cyclic volume 6 liters
T-version 5.6 liters
- Maximum operating pressure 0.5 bar
- Fire resistant (HTB) up to 0.1 bar according to EN 1359
- High accuracy and long-term stability
- Powder coated pale grey to RAL 7035
- Standard pulse magnet, retrofitable LF pulser (I=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

* Other media: Inert gases to EN 437

** BK-G10T and BK-G16T: Measurement of temperature compensated gas volume

BK-G10 and BK-G16, BK-G10T and BK-G16T: Compact commercial diaphragm gas meters

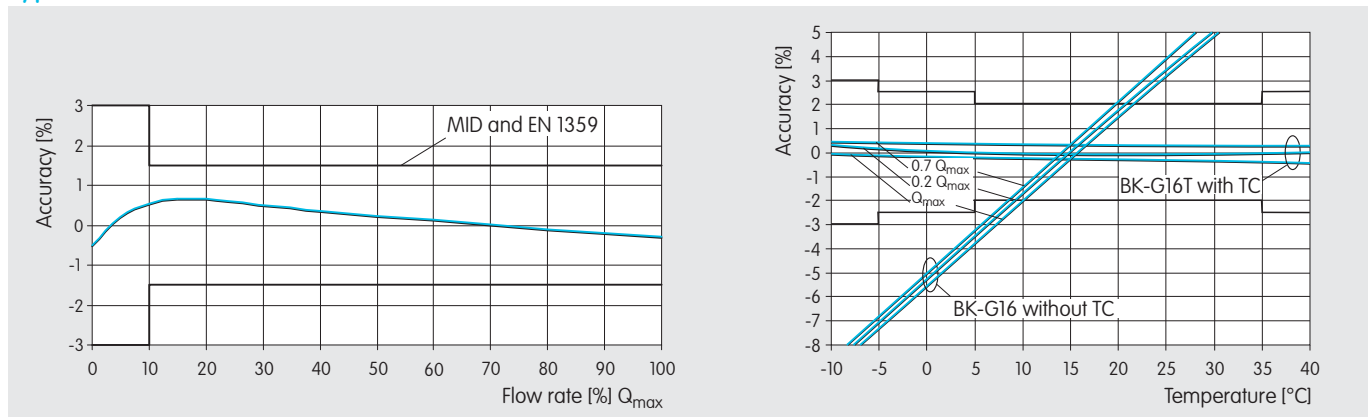
Dimensions



Type	Q _{max} [m ³ /h]	Q _{min} [m ³ /h]	V [dm ³]	Connection size		Dimensions [mm]					Weight [kg]
				DN	Thread*	A*	B	C	D	E	
BK-G10	16	0.1	6	32	1 3/4"	250	320	85	334	218	4.5
BK-G10	16	0.1	6	32	1 3/4"	280	330	108	405	234	5.7
BK-G10	16	0.1	6	40	2"	280	330	108	405	234	5.7
BK-G10	16	0.1	6	-	1 1/4" (BS746)	152.4	337	100	264	218	5.0
BK-G16	25	0.16	6	40	2"	280	330	108	405	234	5.7
BK-G16	25	0.16	6	-	2" (BS746)	250	351	108	405	234	6.5

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

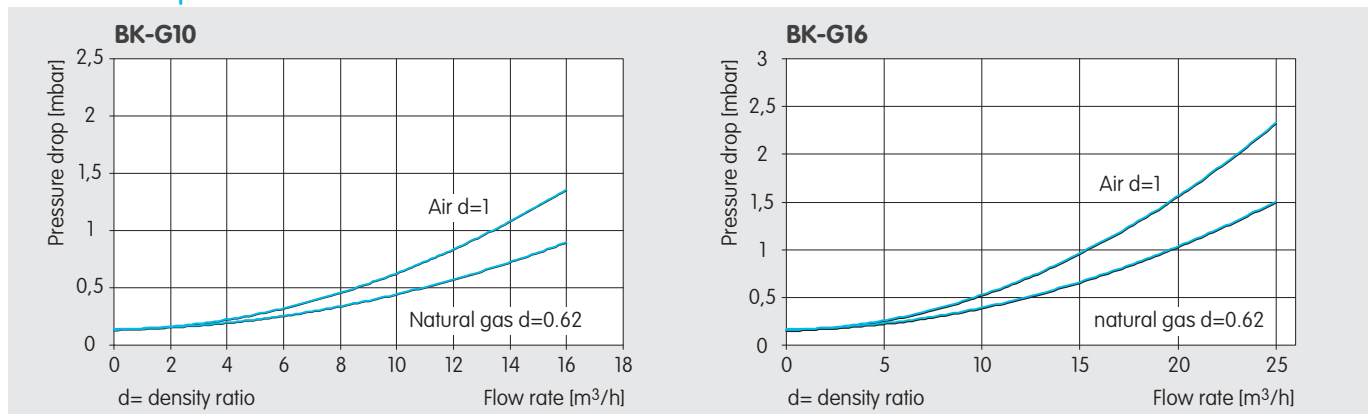
Typical error curve BK-G10/ G16



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



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A11.01.2010