



# BK-G1,6/BK-G2,5/BK-G4

BK-G1,6T/BK-G2,5T/BK-G4T

Compact multirange residential diaphragm gas meters

## Applications

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

## Brief information

The residential diaphragm gas meters BK-Type 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-Type meters 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 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<sub>min</sub> of BK-Type is stable and the gas meter is not susceptible to contamination (RPF 0.9 to BS4161). The measuring unit is adjusted by a patented needle-and-scale system.

Although the design of the BK-Series 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 or mechanical coupling to the index.

The temperature compensation facility of the T-Versions ensures via a bimetallic element that the stroke of the diaphragms is adapted to the current gas temperature.



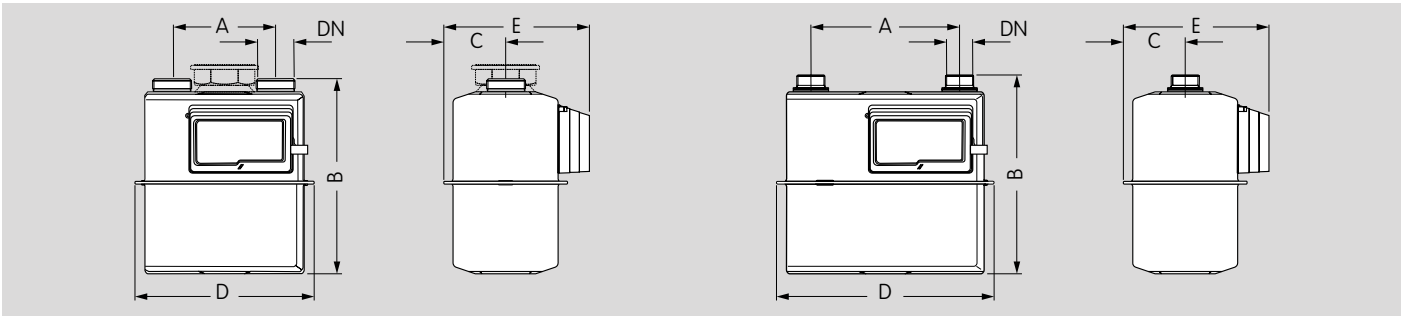
## Main features

- MID conformity approved by PTB
- Approved to EN 1359 by German DVGW
- EU Approval by German PTB
- Flow rates from  
G1.6: 0.016 m<sup>3</sup>/h to 2.5 m<sup>3</sup>/h  
G2.5: 0.025 m<sup>3</sup>/h to 4 m<sup>3</sup>/h  
G4: 0.04 m<sup>3</sup>/h to 6 m<sup>3</sup>/h
- Cyclic Volume 1.2 liters
- Maximum operating pressure 0.5 bar
- Fireproof (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=0.01 m<sup>3</sup>/pulse)
- Not susceptible to contamination (RPF = 0.9)
- Temperature range:  
Standard: -10 °C to +40 °C,  
other temperatures on request
- Temperature compensation available
- Intelligent index technology, Chekker system, Absolut-ENCODER and radio applications

\* Other media: Inert gases to EN 437

\*\* T-Versions: Measurement of temperature compensated gas volume.

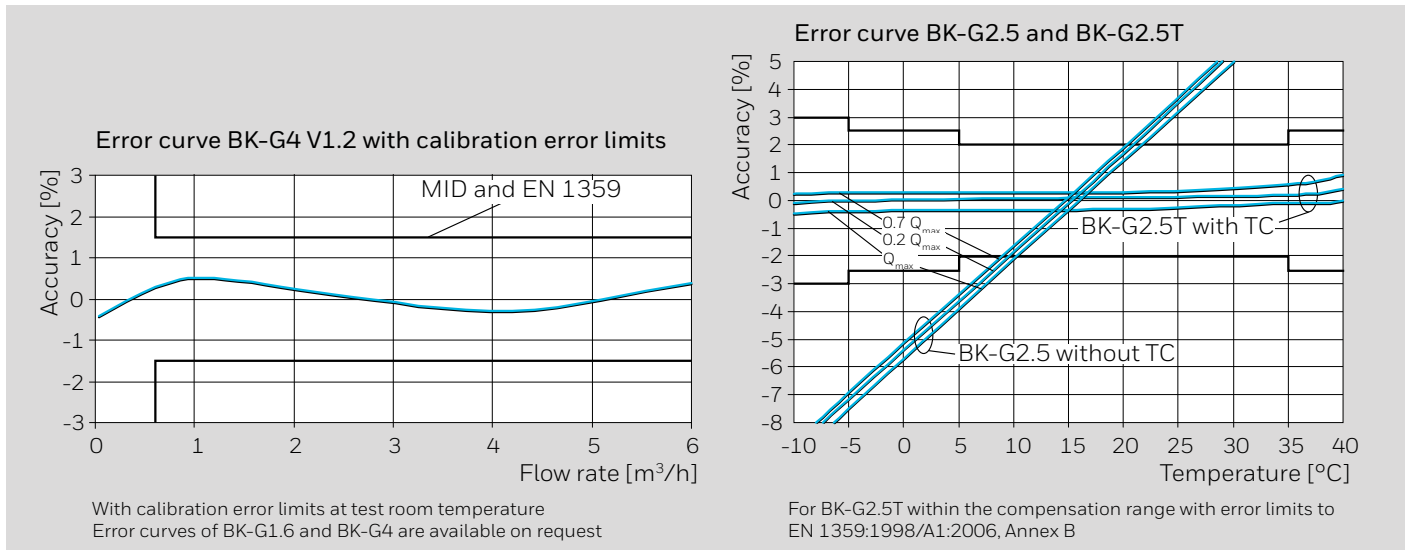
## Dimensions and weights



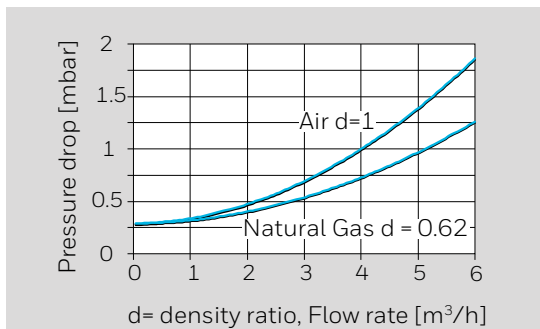
Type	Dimensions					Weight kg	Connection size DN*	Thread
	A	B	C	D	E			
Two-pipe	110	214	67	194	157	1.9	25	1 1/4"
Two-pipe	130	214	67	204	157	1.9	20	1"
Two-pipe	152.4	214	67	235	157	2.0	-	1***
Two-pipe	160	214	67	235	157	2.0	-	G 7/8 B***
Co-axial	-	215	67	194	157	1.9	25	2"

Additional connection dimensions on request, \* According to DIN 3376, \*\*According to BS 746\*\*\*, According to ISO 228-1

## Error curve



## Pressure drop curve





# BK-G6, BK-G6T

Compact residential diaphragm gas meters,  
cyclic volume 2 dm<sup>3</sup>

## Applications

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

## Brief information

The residential diaphragm gas meter BK-G6 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-G6 is supplied in folded form as co-axial and two-pipe version.

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<sub>min</sub> of BK-G6 is stable and the gas meter is not susceptible to contamination (RPF 0.9 to BS4161). The measuring unit is adjusted by a patented needle-and-scale system.

Although the design of the BK-G6 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-G6T ensures via a bimetallic element that the stroke of the diaphragms is adapted to the current gas temperature.



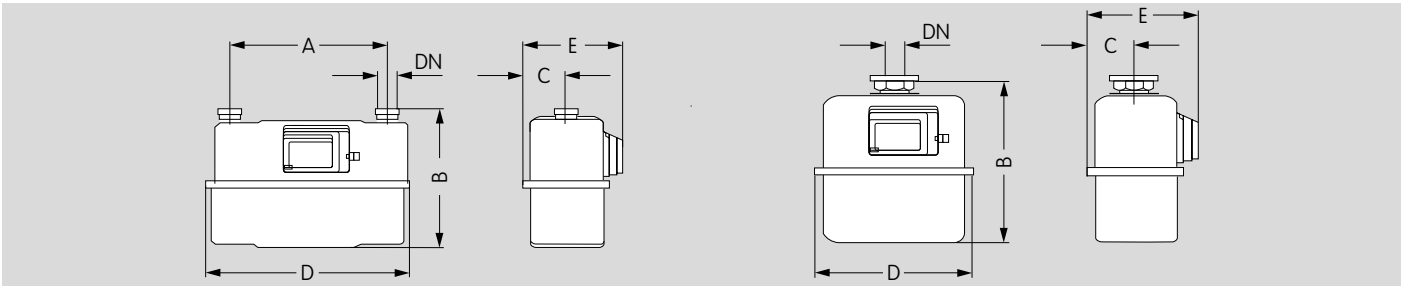
## Main features

- MID conformity approved by PTB
- Approved to EN 1359 by German DVGW
- EU approval by German PTB
- Flow rates from 0.06 m<sup>3</sup>/h to 10 m<sup>3</sup>/h
- Cyclic volume 2 liters
- Maximum working pressure 0.5 bar
- Firesafe (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=0.01 m<sup>3</sup>/pulse)
- Not susceptible to contamination (RPF = 0.9)
- Temperature ranges 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

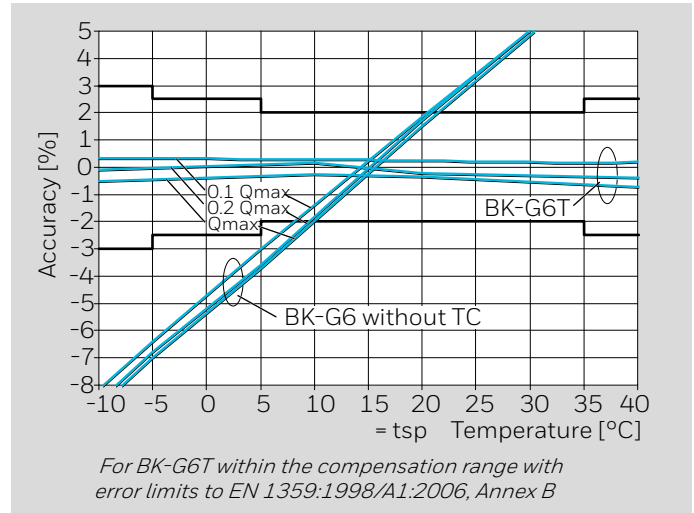
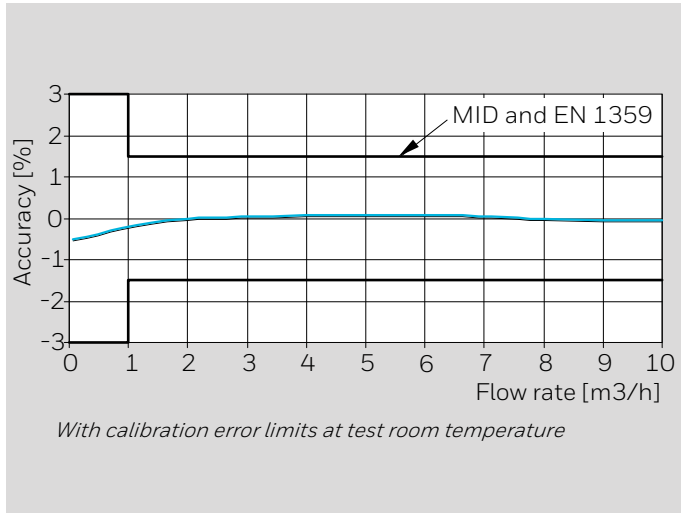
## Dimensions and weights



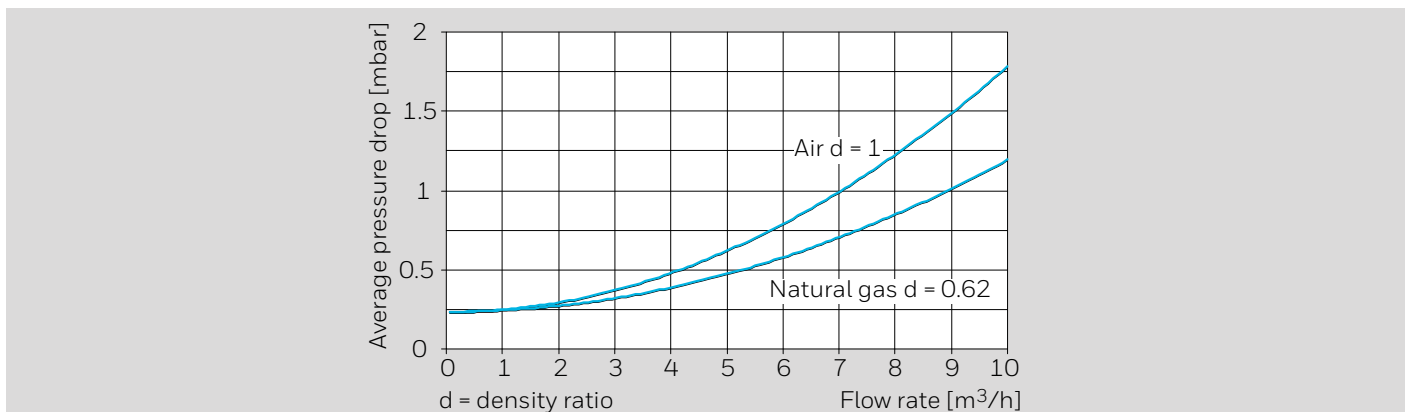
Type	Dimensions** [mm]					Connection size [DN] *	Thread	Weight [kg]
	A	B	C	D	E			
Two-pipe	152.4	262	71	226	163	-	1" (BS 746)	3.0
Two-pipe	152.4	252	71	226	163	25	1 1/4"	3.0
Two-pipe	250	250	71	327	163	20	1"	3.5
Two-pipe	250	241	71	327	163	25	1 1/4"	3.5
Co-axial	-	251	71	226	163	25	2"	3.0

\* To DIN 3376, \*\* Additional connection dimensions on request

## Error curve



## Pressure drop curve





# 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 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
- Flow rates from 0.1 m<sup>3</sup>/h to 16 m<sup>3</sup>/h (G10) 0.16 m<sup>3</sup>/h to 25 m<sup>3</sup>/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 m<sup>3</sup>/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-G6T: Measurement of temperature-compensated gas volume

## Dimensions and weights

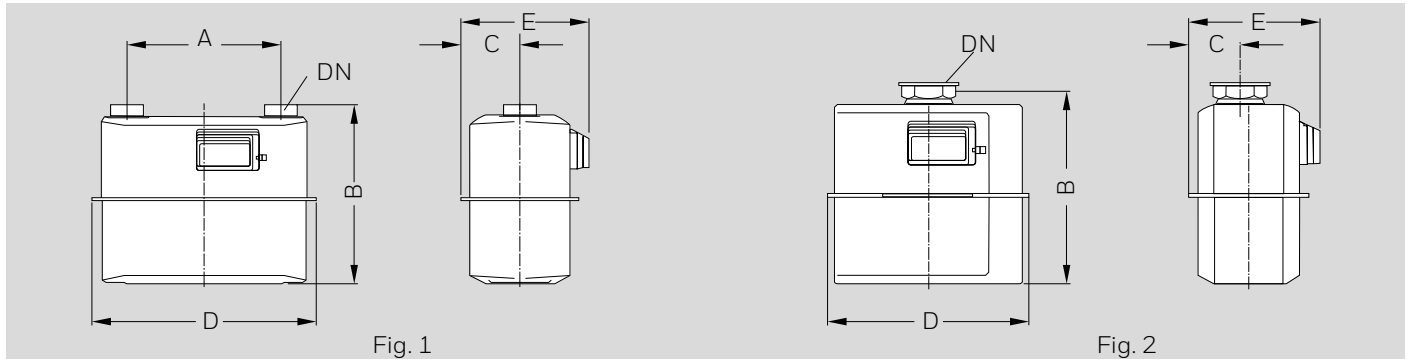


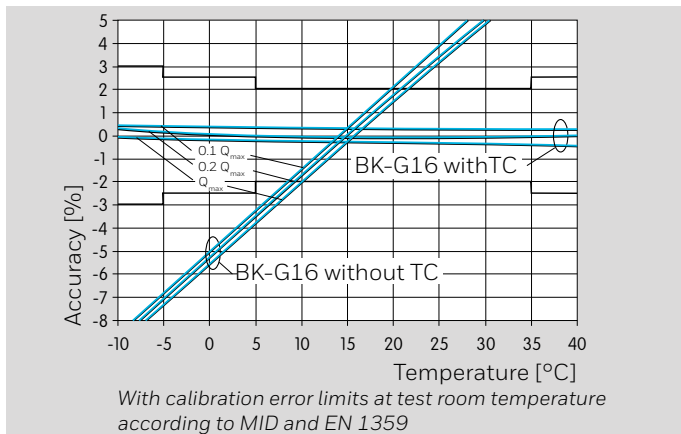
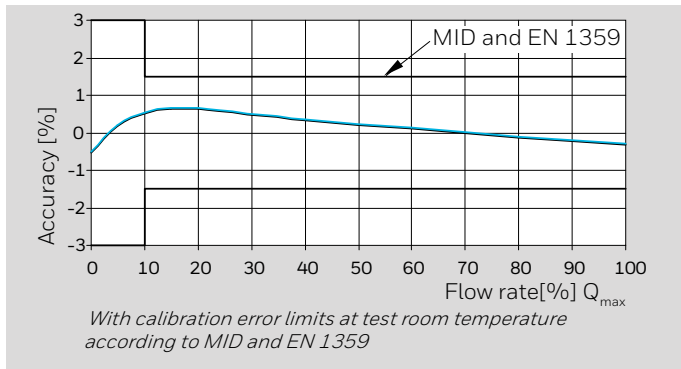
Fig. 1

Fig. 2

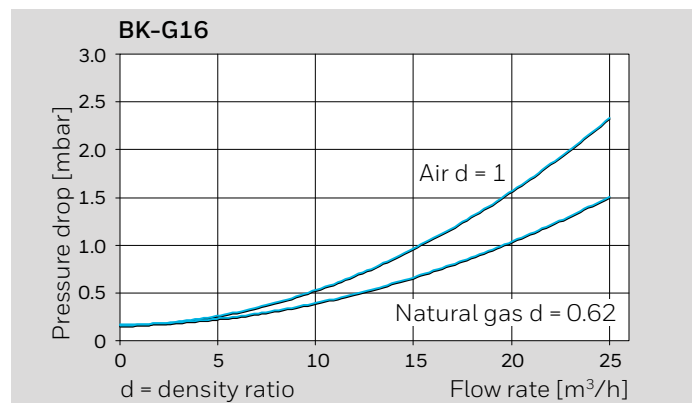
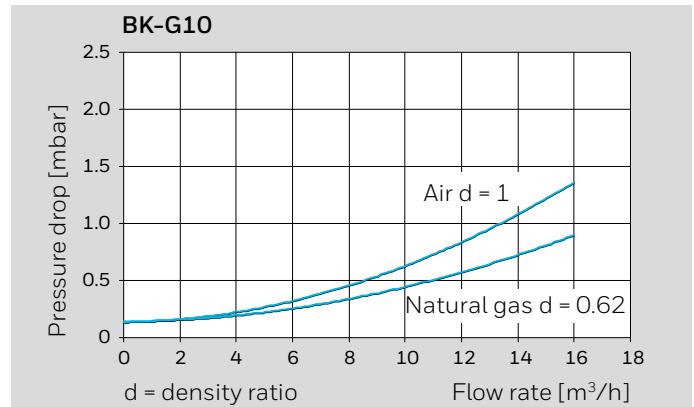
Type	Fig.	$Q_{max}$ [m <sup>3</sup> /h]	$Q_{min}$ [m <sup>3</sup> /h]	V [dm <sup>3</sup> ]	Connection size		Dimensions [mm]					Weight [kg]
					DN	Thread*	A*	B	C	D	E	
BK-G10	2	16	0.1	6	40	2 3/4"	-	323	85	334	218	5.1
BK-G10	1	16	0.1	6	25	1 1/4"	250	320	85	334	218	4.5
BK-G10	1	16	0.1	6	32	1 3/4"	280	330	108	405	234	5.7
BK-G10	1	16	0.1	6	40	2"	280	330	108	405	234	5.7
BK-G10	1	16	0.1	6	-	1 1/4" (BS746)*	152.4	337	100	264	218	5.0
BK-G16	2	25	0.16	6	40	2 3/4"	-	323	85	334	218	5.1
BK-G16	1	25	0.16	6	40	2"	280	330	108	405	234	5.7
BK-G16	1	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 and BK-G16



## Pressure drop curve





# BK-G25, 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.



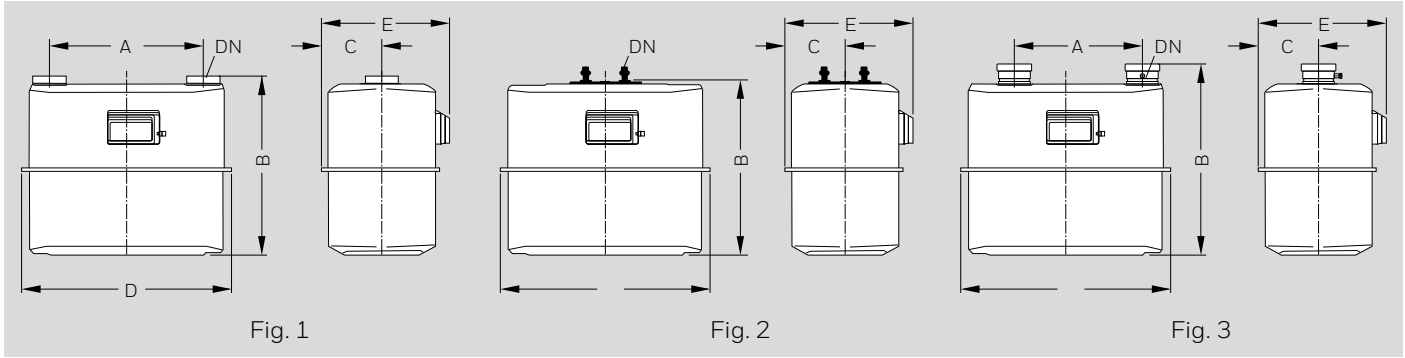
## Main features

- 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

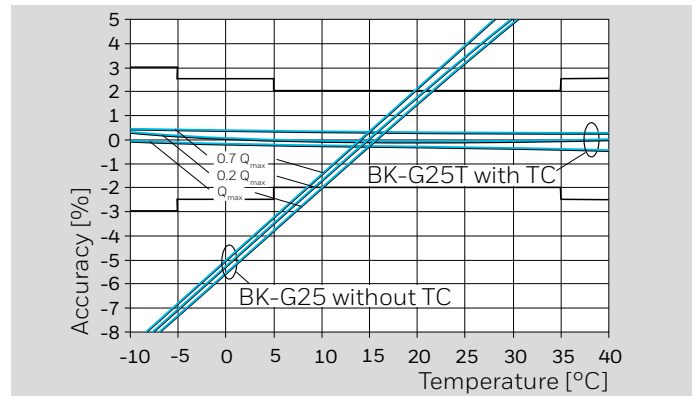
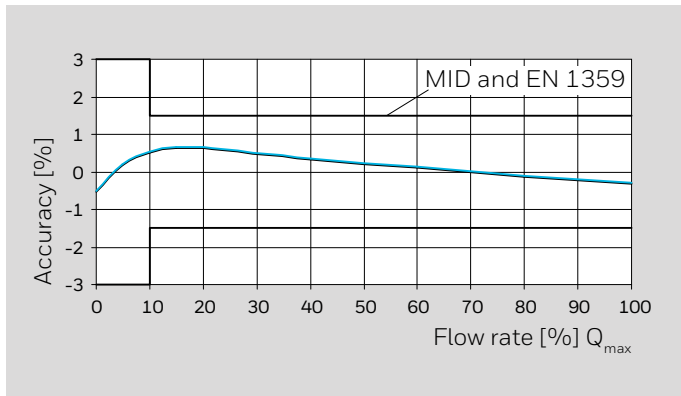
## Dimensions, flow rates, weights



Type	Fig.	$Q_{max}$ [m <sup>3</sup> /h]	$Q_{min}$ [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

