

# BK-G4 and BK-G4T

High quality residential diaphragm gas meters



## Applications

Media: Natural gas, town gas, propane, butane air. ...\*

Branches: Gas supply

Functions: BK-G4 - gas measurement at operating conditions. ...\*\*

## Brief information

The residential diaphragm gas meter BK-G4 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-G4 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,  $Q_{min}$  of BK-G4 is stable and the gas meter is not susceptible to contamination (RPF 0.65 to BS4161). The measuring unit is adjusted by a patented needle-and-scale system.

Although the design of the BK-G4 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-G4T ensures via a bimetallic element that the stroke of the diaphragms is adapted to the current gas temperature.

\* ... Other media: inert gases to EN 437

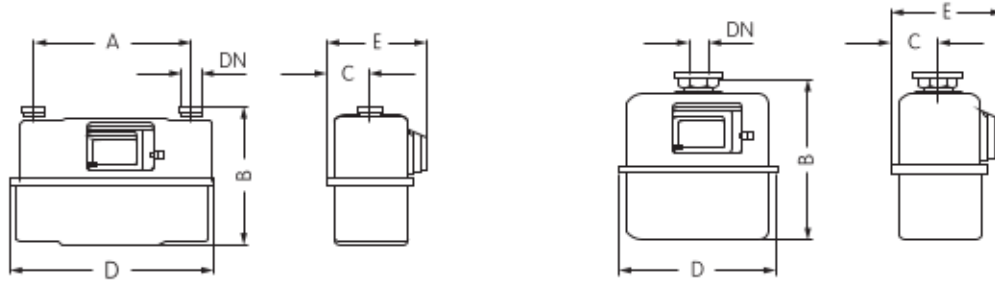
\*\* ... BK-G4T - measurement of temperature compensated gas volume.

## Main features

- MID conformity approved by PTB
- Approved to EN 1359 by German DVGW
- EU Approval by German PTB
- Flow rates from 0.04 m<sup>3</sup>/h to 6 m<sup>3</sup>/h
- Cyclic Volume 2 liters
- Firesafe (HTB) up to 0.1 bar according to EN 1359
- Maximum working pressure 0.5 bar
- High accuracy and long-term stability
- Powder coated pale grey to RAL 7035
- Standard pulse magnet; retrofittable LF pulser (I=0.01 m<sup>3</sup>/pulse)
- Not susceptible to contamination (RPF = 0.65)
- 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

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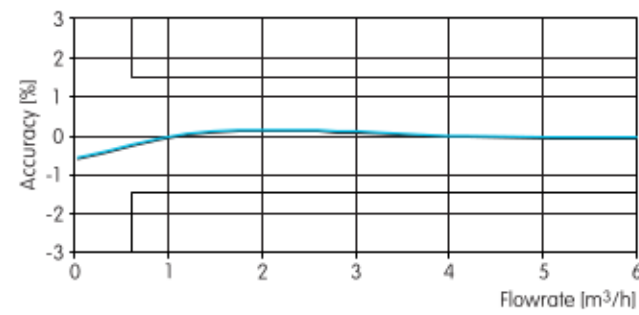
Dimensions and weights



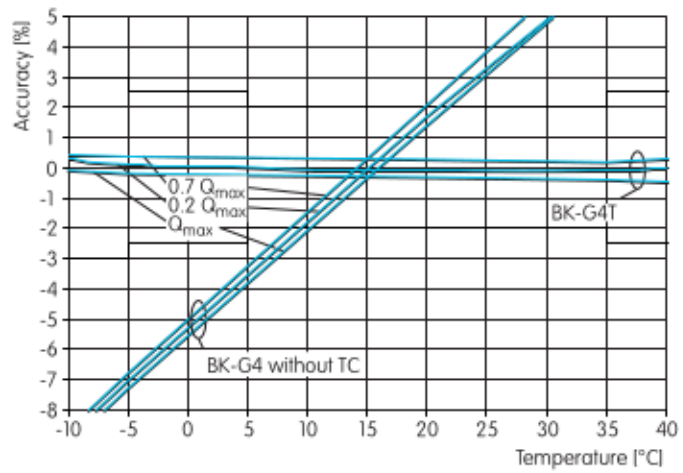
Type	Dimensions** [mm]					Diameter nominal [DN*]	Thread	Weight [kg]
	A	B	C	D	E			
Two-pipe	152.4	262	71	226	163	-	1" (BS 746)	3.0
Two-pipe	220	250	71	327	163	-	GM ¾	3.5
Two-pipe	250	241	71	327	163	25	1 ¼"	3.5
Co-axial	-	251	71	226	163	25	2"	3.0

\* according to DIN 3376      \*\* additional connection dimensions on request

Error curve BK-G4 and BK-G4T



BK-G4 with calibration error limits at test room temperature according to MID and EN 1359



For BK-G4T within the compensation range with error limits to MID and EN 1359:1998/A1:2006, Annex B

Pressure drop curve BK-G4 and BK-G4T

