

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

## BK-G1.6T / BK-G2.5T 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,  $Q_{\min}$  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

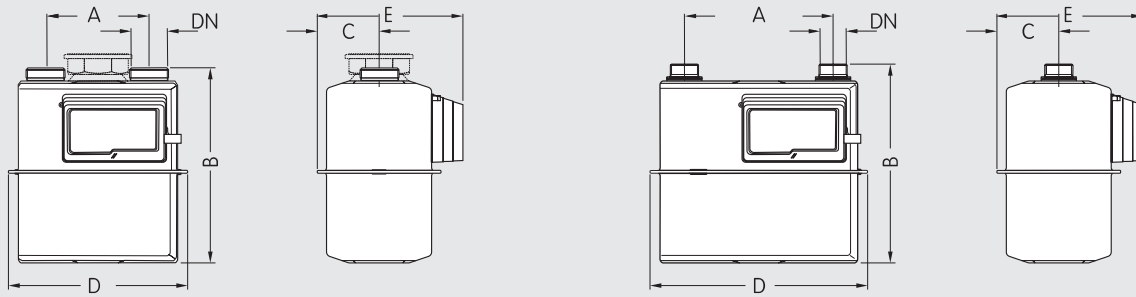
- MID conformity approved by PTB
- Approved to EN 1359 by German DVGW
- EU Approval by German PTB
- Flow rates from
  - G1.6 : 0.016 m<sup>3</sup>/h to 2.5 m<sup>3</sup>/h
  - G2.5: 0.025 m<sup>3</sup>/h to 4 m<sup>3</sup>/h
  - G4 : 0.04 m<sup>3</sup>/h to 6 m<sup>3</sup>/h
- Cyclic Volume 1.2 liters
- Maximum operating pressure
  - 0.5 bar (steel); 1.0 bar (aluminium)
- Fireproof (HTB) up to 0.1 bar according to EN 1359 (steel)
- 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.

# BK-G1.6(T)/BK-G2.5(T)/BK-G4: Compact multirange residential diaphragm gas meters

## Dimensions and weights



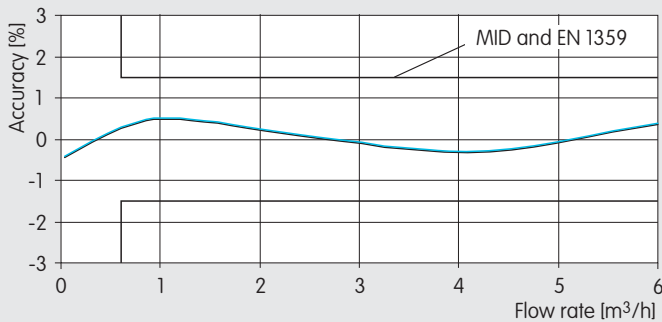
Type	Meter Case	Dimensions**					Weight	Connection size	Thread
		A	B	C	D	E			
Two-pipe	Steel	110	214	67	194	157	1.9	DN*	1 1/4"
Two-pipe	Steel	130	214	67	204	157	1.9	20	1"
Two-pipe	Steel	152.4	214	67	194	157	2.0	25	1 1/4"
Two-pipe	Aluminium	110	220	71.5	197	163	1.9	25	1 1/4"
Co-axial	Steel	-	215	67	194	157	1.9	25	2"

\* according to DIN 3376

\*\* Additional connection dimensions on request

## Error curve

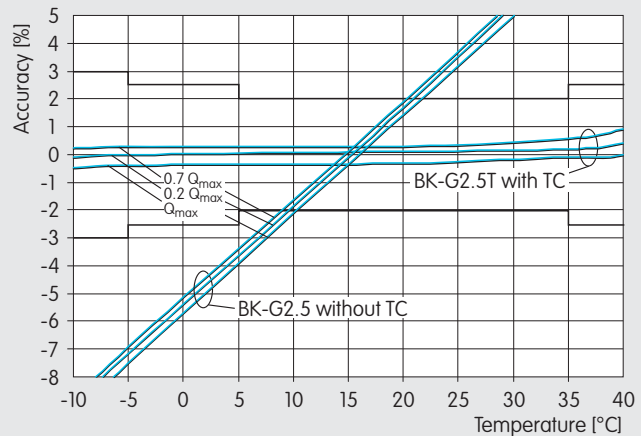
Error curve BK-G4 V1.2 with calibration error limits



With calibration error limits at test room temperature

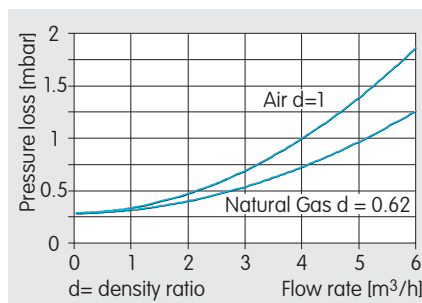
Error curves of BK-G1.6 and BK-G4 are available on request

Error curve BK-G2.5 and BK-G2.5T



For BK-G2.5T within the compensation range with error limits to EN 1359:1998/A1:2006, Annex B

## Pressure drop curve



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**BK G1p6 G4 EN04**

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