

# BK-G1.6 to BK-G4 / BK-G1.6T and BK-G2.5T



## *compact multirange gas meter for domestic installations*

### Fields of applications

- **Media**  
Natural gas, town gas, propane, butane, air, inert gases
- **Industries:**  
Gas industry
- **Tasks:**  
Measurement of gas volume

### Measuring 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 or a stuffing box to the index. The temperature correction facility of BK-G1.6T and BK-G2.5T ensures via a bimetallic element mounted on the crankshaft, that the stroke of the diaphragms and as such the measured volume is corrected for temperature.

### Short information

BK-G1.6 to BK-G4 are compact domestic diaphragm gas meters designed to meet the highest demands with respect to accuracy and reliability. They incorpo-

rate both innovative features and Elster's gas measurement know-how of many decades. The meter is supplied either as a co-axial or as a two-pipe version. The housing can be made of steel (folded model) or aluminium (srew-connection model).

In the measuring unit the diaphragms are moving stress free without mechanical stops. This ensures both low bearing loads and a quiet operation. The dimensionally stable synthetic diaphragm has the proven stadium-shaped form.

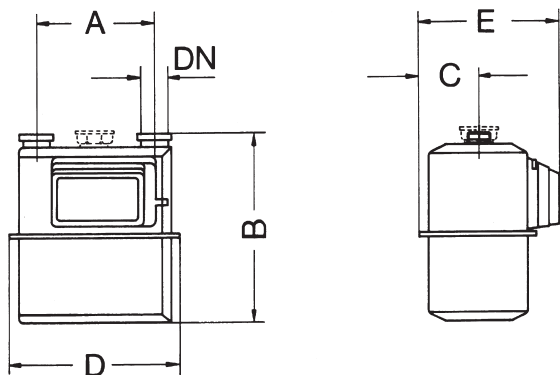
High-grade materials and components as well as the patented slide control (K-system) ensure a high quality standard. The K-system synchronizes the operation of the slides with the current flow through the measuring chamber thus achieving minimum flow channels and a extremely high accuracy of measurement.

Due to the small slides, BK-G1.6 to BK-G4 are not susceptible to contamination (RPF of 0.90 to BS4161). The measuring unit is adjusted by a patented needle and scale system.

Although the design is very robust, the meters are still measuring instruments and as such should be handled with care.

### Main features

- **EU approval by German PTB**
- **for flow rates from**  
0.016 m<sup>3</sup>/h to 2.5 m<sup>3</sup>/h (BK-G1.6)  
0.025 m<sup>3</sup>/h to 4 m<sup>3</sup>/h (BK-G2.5)  
0.04 m<sup>3</sup>/h to 6 m<sup>3</sup>/h (BK-G4)
- **Approved to EN1359 by German DVGW**
- **Cyclic volume 1.2 litres**
- **Maximum operating pressure: 0.5 bar (steel); 1.0 bar (aluminum)**
- **Fireproof (HTB) up to 0.1 bar to EN 1359 (steel)**
- **High accuracy and long-term stability**
- **colour: RAL 7035 pale grey**
- **Standard: pulse magnet; a LF pulser can be retro-fitted at any time (I= 0,01 m<sup>3</sup>/pulse)**
- **Low noise level**
- **Not susceptible to contamination (RPF = 0.9)**
- **Gas temperature: -20°C to +50°C**
- **Temperature compensation range of BK-G1.6T and BK-G2.5T:**  
standard: -5°C to +35°C  
option: -20°C to +50°C



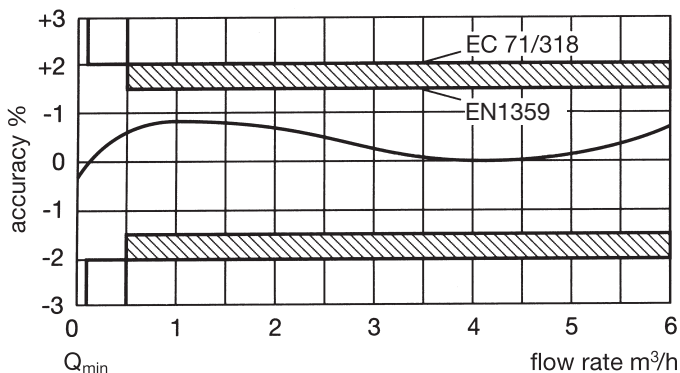
**Dimensions**

Meter Case	A*) (mm)	B (mm)	C (mm)	D (mm)	E (mm)	Weight (kg)	Connection size (DN)	Thread ISO 228/1 G*)
Steel	co-axial 110	215 214	67	194	157	1.9	25 25	2" 1 1/4"
Aluminium	110	220	71.5	197	163	1.9	25	1 1/4"

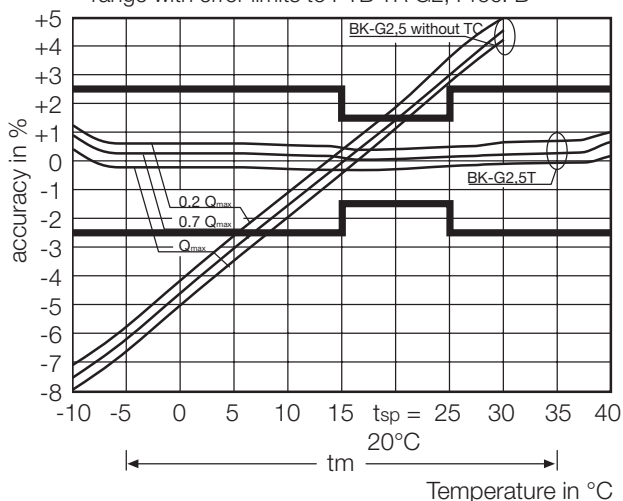
\*) additional connection dimensions on request

**Typical error curve**

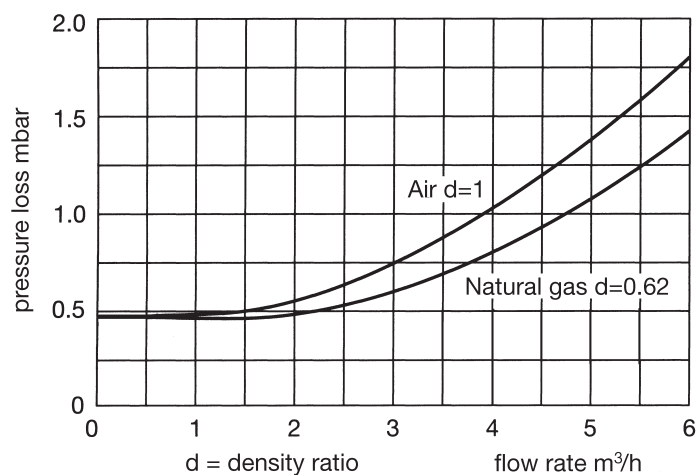
with calibration error limits



Accuracy of BK-G1.6T and BK-G2.5T in the compensation range with error limits to PTB TR G2, Proc. B



**Pressure loss curve**



**Your contacts**

**Europe, Africa, Near and Middle East:**

Elster Handel GmbH  
Steinern Str. 19-21  
55252 Mainz-Kastel, Germany  
Phone +49 61 34 605-0  
Fax +49 61 34 605-223

**North America:**

American Meter Company  
300 Welsh Road, Building One  
Horsham, PA 19044, USA  
Phone +1 215 830 1800-1899  
Fax +1 215 830 1890-1892

**Asia, Pacific:**

ELSTER AG  
80 Marine Parade Road  
#09-04 Parkway Parade  
Singapore 449269  
Phone +65 2477728  
Fax +65 2477729

**Argentina/Chile/Brazil/Uruguay/Paraguay/Bolivia:**

ELSTER-AMCO de Sud America  
J. I. Rucci 1051  
B1822CJU Valentin Alsina  
Buenos Aires, Argentina  
Phone 54-11-4229-5506  
Fax 54-11-4229-5650

**Mexico/Peru/Venezuela/Colombia/Ecuador:**

ELSTER-AMCO de Mexico  
300 Welsh Road, Building One  
Horsham, PA 19044, USA  
Phone 1215-830-1800  
Fax 1215-830-1890

Internet: [www.elster-amco.com](http://www.elster-amco.com)

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