

BK-G4 AND BK-G4T



High quality residential diaphragm gas meters

Applications

- **Media:**
natural gas, town gas, propane, butane, inert gases.
- **Industry:**
gas suppliers.
- **Tasks:**
BK-G4: measurement of gas volume at operating conditions;
BK-G4T: measurement of temperature-compensated gas volume.

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 mounted on the crankshaft that the stroke of the diaphragms in the measuring chambers is adapted to the current gas temperature.

Overview

The residential diaphragm gas meters BK-G4 and BK-G4T are compact gas meters which have been designed to meet the highest demands with respect to accuracy of measurement and safety. They incorporate both innovative features and Elster's gas measurement know-how of many decades. The gas meters BK-G4 and BK-G4T 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. Together with the dimensionally stable, stadium shaped synthetic diaphragm, this principle allows to use a mechanical compensation element in order to correct the temperature – in case of the BK-G4T – to the reference temperature.

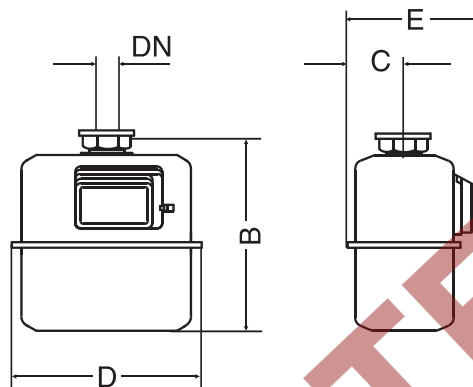
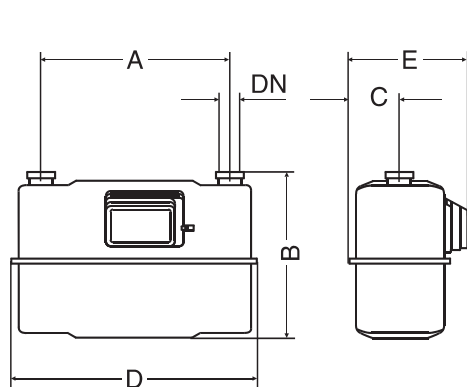
High-grade materials and components as well as the patented curve control system ensure a high quality standard.

Due to the small slides, Q_{\min} of BK-G4 and BK-G4T is stable, and the gas meters are not susceptible to contamination (RPF 0.62 to BS4161). The measuring unit is adjusted by a patented needle-and-scale system.

Although the design of BK-G4 and BK-G4T is very robust, the gas meters are still measuring instruments and as such should be handled with care.

Main features

- **EU approval by German PTB for flow rates from 0.04 m³/h to 6 m³/h**
- **Approved to EN 1359 by German DVGW**
- **Cyclic Volume: 2 Litres**
- **Maximum working pressure: 0.5 bar (0.1 bar for firesafe applications to EN 1359)**
- **High accuracy and long-term stability**
- **Powder coated pale grey to RAL 7035**
- **Standard: pulse magnet; a LF pulser can be added at any time ($I = 0.01 \text{ m}^3/\text{pulse}$)**
- **Low noise level**
- **Not susceptible to contamination (RPF = 0.62)**
- **Gas temperature: -20 °C to +50 °C**
- **Mechanical temperature compensation: -5 °C to +35 °C, Option: -20 °C to +50 °C**



Dimensions and weights

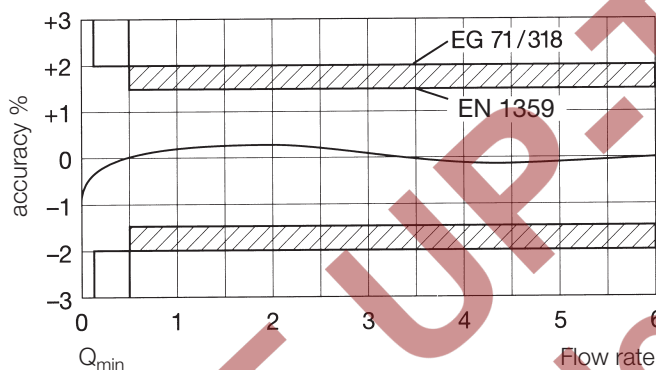
A*	Dimensions (mm)				Weight (Kg)	Connection size* DN**	Thread ISO 228/1 G*
	B	C	D	E			
co-axial	251	71	226	163	3.0	25	2"
152.4	262	71	226	163	3.0	–	1" BS 746
250	241	71	327	163	3.5	25	1 1/4"

* additional connection dimensions on request

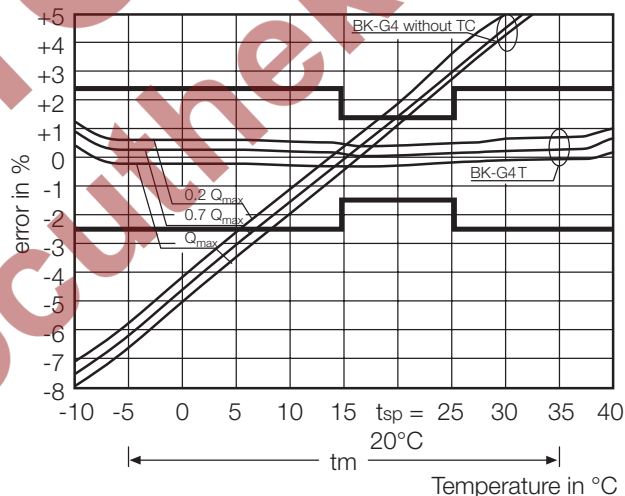
** to DIN 3376

Typical error curve

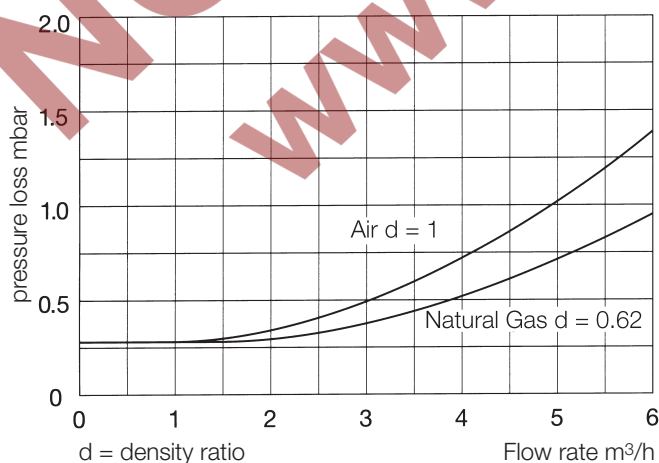
With calibration error limits at test room temperature



For BK-G4T within the compensation range with error limits to PTB TR-G2 Proc. B.



Pressure drop curve of BK-G4 and BK-G4T



Your contacts:

Europe, Africa, Near & Middle East:
Elster Handel GmbH
Steinern Strasse 19-21
D-55252 Mainz-Kastel, Germany
Phone +49 6134 605-0
Fax +49 6134 605-390

Asia Pacific
Elster AG
Singapore Representative Office
80 Marine Parade Road
#09-04 Parkway Parade
Singapore 449269
Phone +65-2477728
Fax +65-2477729

North America
American Meter Company
300 Welsh Road, Building One
Horsham, PA 19044-2234, USA
Phone +1 215 830 1899
Fax +1 215 830 1892

ELSTER-AMCO de Sud America
(Argentina/Chile/Brazil/Urguay/Paraguay/Bolivia)
J. I. Rucci 1051
B1822CJU Valentin Alsina
Buenos Aires, Argentina
Phone +54 11 4229-5506
Fax +54 11 4229-5650

ELSTER-AMCO de Mexico
(Mexico/Peru/Venezuela/Colombia/Ecuador)
300 Welsh Road, Building One
Horsham, PA 19044, USA
Phone +1 215 830 1800
Fax +1 215 830 1890

BK G4 EN 02

Internet: www.elster-amco.com