

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.

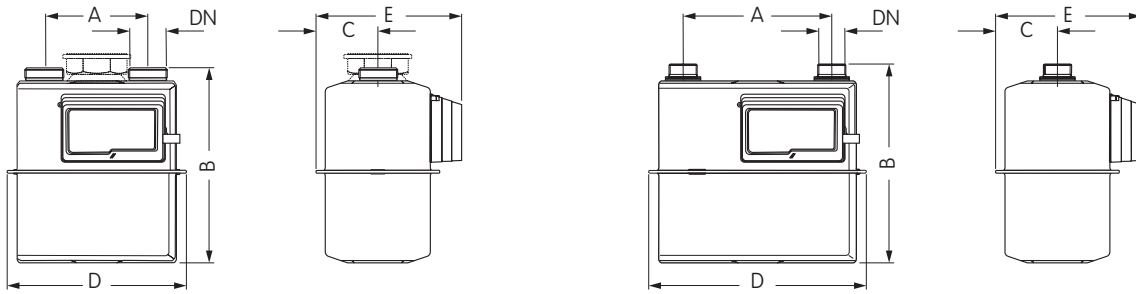
Main features

- MID conformity approved by PTB
- Approved to EN 1359 by German DVGW
- EU Approval by German PTB
- Flow rates from
G1.6 : 0.016 m³/h to 2.5 m³/h
G2.5: 0.025 m³/h to 4 m³/h
G4 : 0.04 m³/h to 6 m³/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 m³/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"

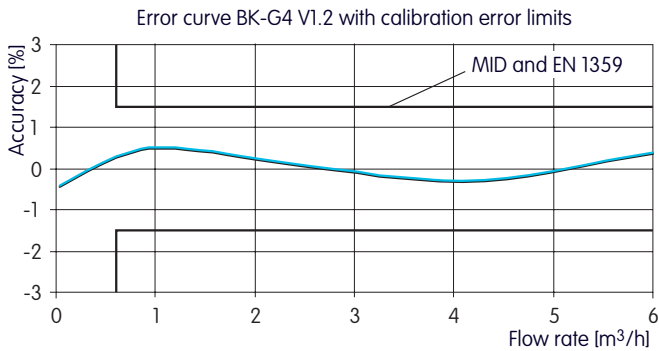
Additional connection dimensions on request

* According to DIN 3376

** According to BS 746

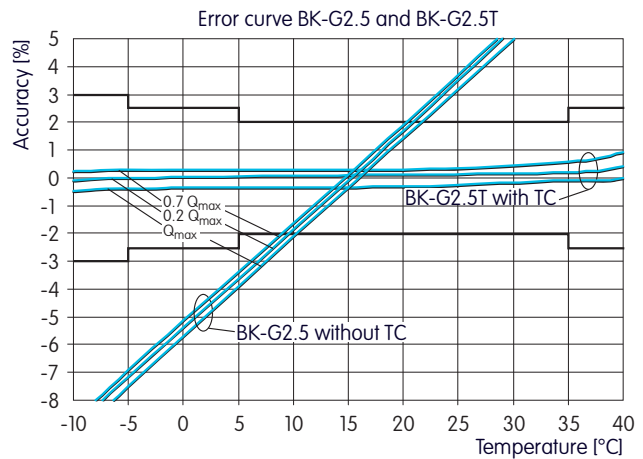
*** According to ISO 228-1

Error curve



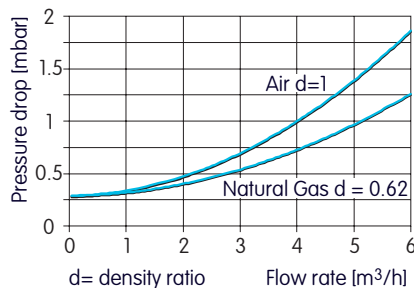
With calibration error limits at test room temperature

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



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

Pressure drop curve



Your contacts



Germany
 Elster GmbH
 Steinern Str. 19 - 21
 55252 Mainz-Kastel
 T +49 6134 605 0
 F +49 6134 605 223
 www.elster-instromet.com
 info@elster-instromet.com

Belgium
 Elster NV/SA
 Rijkmakerlaan 9
 2910 Essen
 T +32 3 670 0700
 F +32 3 667 6940
 www.elster-instromet.com
 info@elster-instromet.com

Singapore
 Elster-Instromet Sdn. Bhd. (Singapore Branch)
 29 Tai Seng Avenue
 #06-05A Natural Cool Lifestyle Hub
 Singapore 534119
 T +65 6247 7728
 F +65 6848 9003
 sales@elster-instromet.com.sg

BK G1p6 G4 EN09
 A09.10.2014

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