

# DIAPHRAGM GAS METER BK-G25



## *Compact commercial diaphragm gas meter*

### Applications

- **Media:**  
Natural gas, town gas, propane, butane, inert gases
- **Industry:**  
Gas distribution
- **Tasks:**  
Measurement of gas volume at operating conditions

### Brief Information

Two measuring units with four measuring chambers each are linked together. The 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 revolutions of the crankshaft are transferred via a magnetic coupling to the crankshaft.

**In preparation:** With the version BK-G25T a bi-metal element in the gearing system compensates the influence of the gas temperature regarding accuracy.

BK-G25 is a compact commercial diaphragm gas meters which has been designed to meet the highest demand with regard to accuracy of measurement and safety. BK-G25

incorporates both innovative features and Elster's gas measurement know-how of many decades. BK-G25 is supplied with a folded sheet steel housing with either two pipe or coaxial connections.

The two measuring units of BK-G25 are working to the proven and state-of-the-art principle of pneumatically stopped diaphragms. This ensures low bearing loads and quiet operation. Together with the dimensionally stable synthetic diaphragm this principle allows the use of a mechanical compensation element in order to correct the measured volume to the given billing temperature for facturation purposes (in preparation).

The proven and patented K-system and the use of high grade materials ensure a high quality standard and a long service life.

Due to the small slides, BK-G25 is stable in registration at  $Q_{min}$  and the meter is not susceptible to contamination or change of friction (RPF of 0.65 to BS4161). The measuring units are adjusted by a patented needle-and-scale system.

Although the design of BK-G25 is very robust, the gas meters are still measuring instruments and as such should be handled with care.

### Main Features

- **EC- approved by German PTB for flow rates from 0,25 to 40 m<sup>3</sup>/h**
- **Approved to EN 1359 by German DVGW**
- **Cyclic volume 12 liters**
- **Maximum operating pressure 0,5 bar (0.1 bar for firesafe applications to EN1359)**
- **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 (0.1 m<sup>3</sup>/pulse)**
- **Low noise level**
- **Not susceptible to contamination (RPF=0,65)**
- **Gas temperature: -20°C to +50°C**
- **Temperature compensation (option, in preparation)**
- **Compact design, low weight**
- **Option: Reverse flow valve**

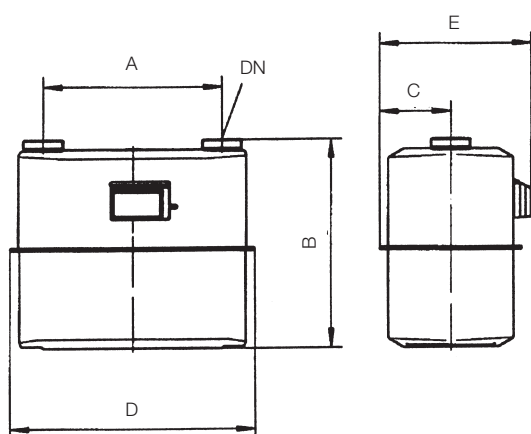
**Dimensions flow rates and weights**


Figure 1

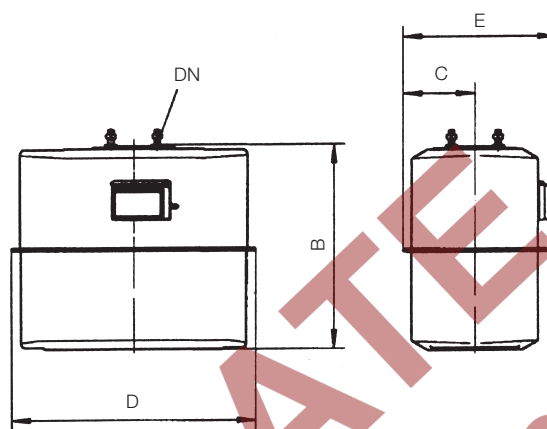
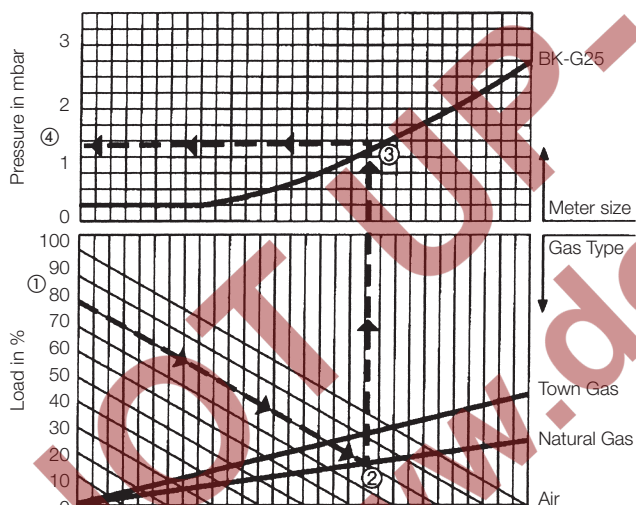


Figure 2

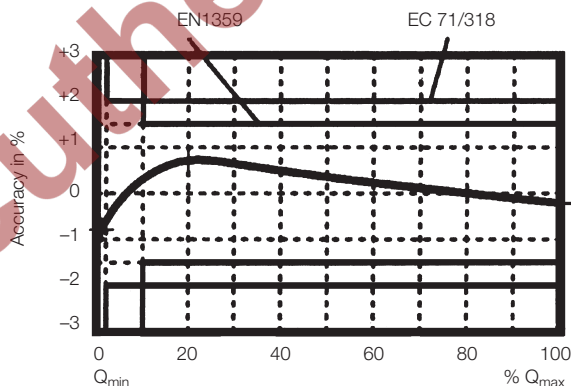
Acc. fig. No	Type	Q <sub>max</sub> m³/h	Q <sub>min</sub> m³/h	V (dm³)	DN*	Connection Thread*	Dimensions (mm)					Weight (kg)
						ISO 228/1 G	A*	B	C	D	E	
1	BK-G25	40	0.25	12	50	2 1/2"	335	398	138	465	289	10.0
1	BK-G25	40	0.25	12	-	2" BS746	280	428	138	465	289	10.5
2	BK-G25	40	0.25	12	50	4xM10	-	385	138	465	289	10.6

\*other dimensions on request

**Pressure loss curve**


Example:

- ① Load 80%
- ② Natural Gas
- ③ Size: BK-G25
- ④ Pressure Loss: 1.2 mbar

**Typical error curve**

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