

Sagemcom



MGM40

Compact industrial mechanical
diaphragm gas meters

Description

The MGM40 and MGM65 meters are volumetric measuring instruments with deformable walls for natural gas, manufactured gas, LPG, and technical gases, designed for industrial use. It is designed and built according to the highest standards, and in compliance with the EN1359 standard and the MID directive. Measurement precision and accuracy is guaranteed by the production and control process, and by an automated calibration system, which is used at the internal Metrological Laboratory upon 100% of the meters produced.

The quality of the plastic and metal components renders the meters highly sensitive, even with a minimal gas flow, and ensures excellent performance over time.

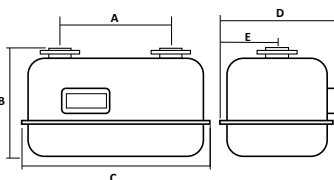
The accuracy and reliability of the measurement over time is guaranteed by the consolidated mechanical principle of the measurement itself, which is performed using a membrane and spool valve system.

REFERENCES

European Directive 2014/32/EU (MID)

EN 1359:1998/A1:2006 Standard

Product details

Model	MGM40
Meter Class	G40
Max. operating pressure (mbar)	500
Min. flow rate (m ³ /h)	0,4
Max. flow rate (m ³ /h)	65
Spacing distance	430 mm
Standard connection	DN80 (according to ISO 228-1)
Operating temperature range	-25 °C / + 55 °C
Precision class	1.5
Cyclic volume	18 dm ³ (multi-chamber complex consisting of three 6 dm ³ chambers)
Optional (mech version)	Low frequency (LF) pulse generator 1 imp= 0.1 m ³
Dimensions	A: 430mm, B: 400mm, C: 688mm, D: 408mm, E: 199mm 
Weight	38.5 kg

Characteristics

- Membrane in synthetic material
- Casing available in steel, coated with polyester paint
- The meter guarantees excellent protection against corrosion, and is resistant to high temperatures, in accordance with the EN1359:1998/A1:2006 standard
- High stability of measurement
- Low noise and pressure absorption
- Equipped with a mechanical check valve device
- All the models are designed to be connected to a low frequency (LF) pulse generating sensor
- Units of measure and count not prone to magnetic tampering
- The meters can be furnished with various connection types and spacing distances upon request
- The measurement is transmitted to the dial mechanically

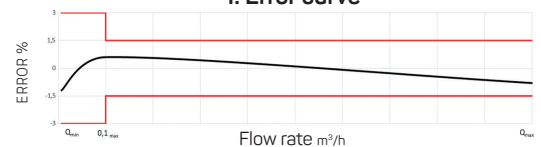
Functionality

The MGM40 and MGM65 meters are made with multi-chamber technology; Three 6 dm³ metrological complexes, phased through a special kinematic device, work in parallel to optimize the measurement stability and accuracy.

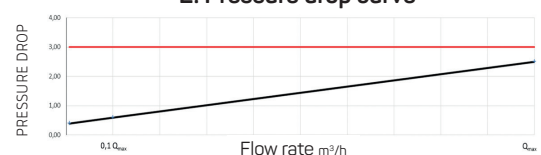
The pressure difference between the meter's intake and outlet results in the cyclic filling and emptying of the two measuring complexes via the alternating movement of the deformable membrane. The gas that passes through the complexes is collected by a special manifold and is expelled by an outlet pipe.

The alternation motion is converted into rotary motion by the kinematic measuring device, which consists of spool valves and a connecting rod/crank coupling. The counter dial, which records the measurement in compliance with the current standards, is driven by a mechanical shaft.

1. Error curve



2. Pressure drop curve



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Sagemcom Energy & Telecom SAS

Headquarters : 250, route de l'Empereur

92848 Rueil-Malmaison Cedex - FRANCE

Tel : +33 (0)1 57 61 10 00 - Fax : +33 (0)1 57 61 10 01

www.sagemcom.com

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