Residential Diaphragm Gas Meter

The M4com is a compact residential gas meter designed to measure accurately volumes of natural gas, LPG and all non-corrosive gases.

Application

M4Com production facility (100% originating from: Itron Gallus 2000) based on 40 years and over sixty million meters of production experience and know-how.

Metrology

The M4com meets O.I.M.L, EN 1359 and MID (Pending for MID certification from LNE), and more than 25 national metrological standards (DVGW, NMI Class 1...)

Its design and the careful choice of materials enable the M4com to meet the highest demand in international markets in terms of accuracy and long-term stability.

During the preliminary test controls on the sonic nozzle test benches, all meters are tested at Qmin, 0.2 Qmax and Qmax.

Operating Principle

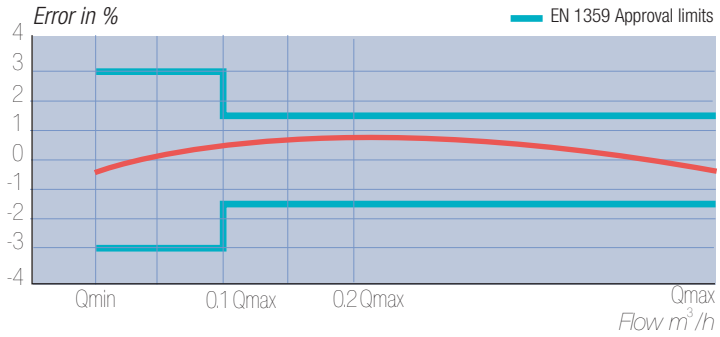
The M4com is a positive displacement diaphragm gas meter with a stand-alone twin chamber measuring unit.

The twin chambers are each fitted with a flexible and gas- tight diaphragm which is moved by the differential between the inlet and outlet pressure. The gas enters one side of the diaphragm pan while on the other side it comes out through a separate port on the valve. When one side is full, the rotating mono-valve moves on to the next position, allowing the gas to fill the empty side.
A transmission gear and a mechanical coupling or stuffing box transfer the reciprocating motion to the mechanical retrofittable index.

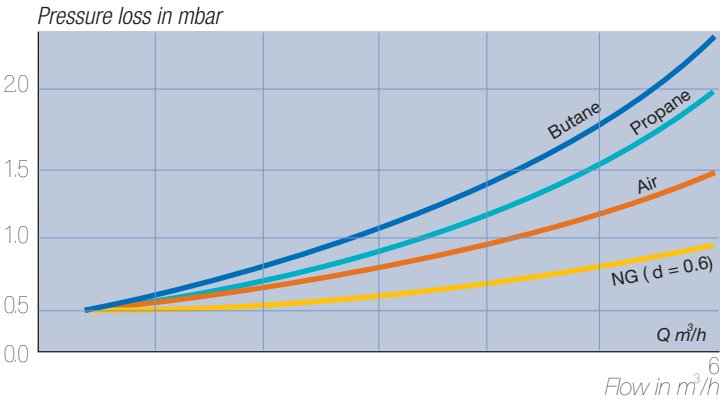
The measuring unit is housed in a robust gas- tight casing.

> **M4com Steel Version**

Accuracy Curve



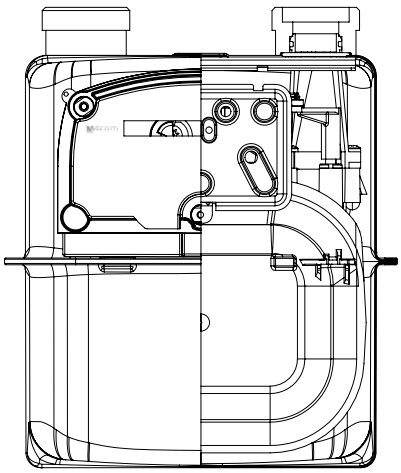
Pressure Loss



> **Basic Features**
- *Compact size*
- *1.2 dm³ cyclic volume*
- *Range G1.6, G2.5, G4*

> **Design**
- *Long-term accuracy & safety*
- *Ready for remote reading & data management*

> **Quality**
- *World-class, ISO9001 certified, European Engineering*



Construction

The M4com meter contains four main parts:

> *Casing*

A gas-tight casing, highly protected from corrosion.

Steel casing.

With its casing in steel, high protection against corrosion is ensured by 500 hours salt fog spray test resistant cataphoresis treatment.

The extreme strength of the case joint is achieved by rolling the belt & compressing the flanges into contact with a sealant applied between the faces. This forms a joint which is both gas -tight and fire-resistant.

All materials used in the production of the M4com meter have been selected for their superior resistance to chemicals and gas.
A back-run stop prevents the meter from running backwards in case of tampering.

> *Totalizer*

A totalizer is available in cubic meters. The totalizer comes with an IP54 protection class and an IP54 protection class and an IP67 version for specific environments. Different totalizer versions can be ordered depending on the application required:
>> “c” series: mechanical index equipped with a Cyble target for retrofittable AMR communication systems.

> *Measuring Unit*

The 1.2d m3 measuring unit has high gliding properties to reduce wear on moving parts and consists of the following components:
1-Four measuring chambers, separated by synthetics diaphragms.
2- A distribution system with a rotating mono-valve.
3- An outlet pipe.

The design of the fixed stroke mechanism is the result of precision and high quality automation, and eliminates the need for an adjustable tangent. This confines all registration adjustments to the accessible change wheels behind the index.

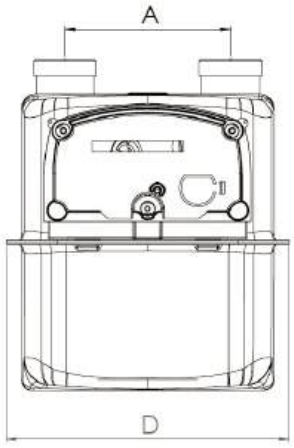
Long life synthetic diaphragms, coupled to the well -proven movement design, combine to give excellent stability and accuracy throughout the whole life of the meter.

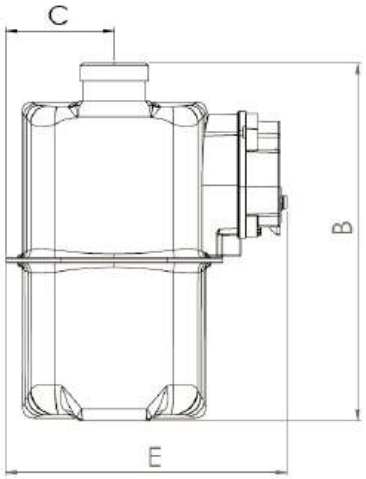
> *Mechanicel Trasmission*

A stuffing box transmits the movement of the measuring unit to the totalizer.

Quality Assurance

Quality assurance procedures - such as ISO 9001- and strict controls throughoutthe manufacturing process ensure a very high quality level.





> M4com

Technical Characteristics

Gas Type		Natural gas, LPG and all non-corrosivegases
Cyclic Volume		1.2dm³
Operating Temperature Storage		- 25°C to + 55°C
Temperature		- 30°C to + 70°C
Maximum Operating Pressure		0.5 bar for steel version
Measuring Range	G1.6	Qmin 0.016 m³/h Qmax 2.5 m³/h
	G2.5	Qmin 0.025 m³/h Qmax4 m³/h
	G4	Qmin 0.04m³/h Qmax 6 m³/h
Accuracy		Class 1.5
Approval		MID (04/22/EC) moduleB being reneved
Totalizer		IP54 (IP67 on request)
Casing Material		Sheet steel
Colour		Grey white RAL9002
Connections		2 pipe connections Different connection threads are available (ISO 228 1 & BS746 standards, national) Special threads on request

Dimensions

Meter case material	A mm	B mm	C mm	D mm	E mm	Weight kg	Connection threads according to ISO 228
Steel	110	219 ± 9	67	190	173.7	1.65 ± 10	G 1”1/4

Please consult us for any other request.

Versions and Options

> LPG version
> Automatic Meter Reading through radio or telephone reading systems

Accessories

Meter bars for two-pipe meters
Valves, pipe connections, installation cabinets
Domestic governors and safety shut-off valves

Ordering Information

-Measuring Range (G1.6, G2.5, G4)

-Maximum working pressure (0.5 bar)

-Specific marking
(serial number, logo, bar code)

MANAS

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