Product Catalogue
G1.6

Residential diaphragm gas meter

G1.6

Raychem RPG
ENGINEERING GROWTH. PIONEERING EXCELLENCE

Table of contents

1. Applications

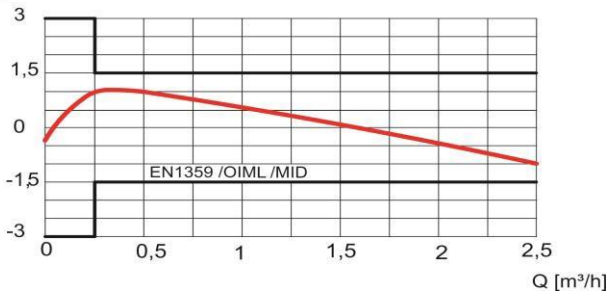
The Raychem RPG make residential gas meters (Mechanical standard version) are designed acc. to the European Standard EN1359 to measure the consumption of gas in households and at other consumers, where the maximum consumption of all gas appliances does not exceed 2.5 m^3/h in case of gas meter G1.6 of the air of density 1.2 kg/m^3. They are suitable to measure the consumption of natural gas, synthetic gases and their mixtures. They can optionally be equipped with low frequency pulse transmitter or the Post-paid AMR Module manufactured and supplied by RAYCHEM RPG.

2. Technical data

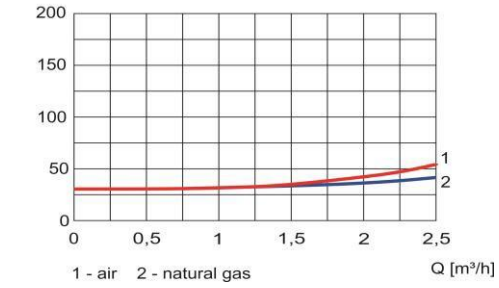
Model	:	Raychem RPG G1.6
Nominal flow rate Qn	:	1.6 m^3/h
Minimal flow rate Qmin	:	0.016 m^3/h
Maximum flow rate Qmax	:	2.50 m^3/h
Transitional flowrate Qt	:	0.25 m^3/h
Overload flowrate Qr	:	3.00 m^3/h
Cyclic volume – V (measured at 20°C)	:	0.52 dm^3
Allowable indication errors limits during initial verification	:	
Qmin to 0.1Qmax – E	:	±3%
0.1Qmax to Qmax – E	:	±1.5%
Ambient temperature range – tm	:	-10 to +55°C
Gas temperature range – tg	:	-10 to +55°C
Maximum working pressure Pmax	:	50 kPa (0.50 bar)
Max. pressure drop Δp at Qmax	:	≤ 200 Pa (2 mbar)
Index measuring range	:	99999,999 m^3
Pulse value (pulse is optional):	:	0.01m3
Distance between connection bosses:	:	110 mm
Weight	:	~1.7 kg
Family of gases	:	Gaseous fuels: family 1,2 & 3 acc. to EN 437
Electromagnetic are classified into classes	:	E1
Mechanical are classified into classes	:	M1
Class of gas meter	:	1.5
Possible connection standards:	:	NPT, BS746, ISO and others on request.
Colour of Meter	:	Grey

G1.6

E [%] **Typical error curve**

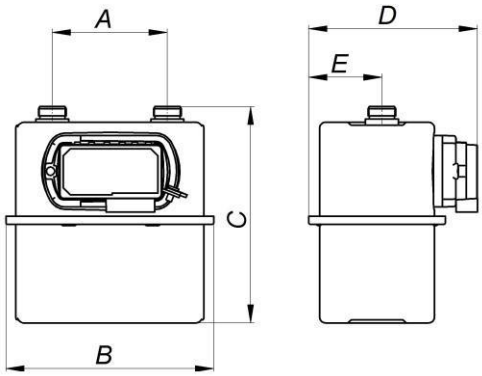


Δp [Pa] **Typical pressure loss curve**



3. Dimensions

V=0.52dm³



A [mm]	**B** [mm]	**C** [mm]	**D** [mm]	**E** [mm]
110	208	197-210*	148.7	87.7

*depending on the type of connection bosses

4. Construction of the gas meter

The gas meter consists of three basic units:

- Mechanism assembly / measuring unit body assembly
- Gas meter steel casing
- AMR ready index

4.1 Mechanism assembly / measuring unit body assembly

It contains two measuring chambers including diaphragm, distributing duct and control mechanism including valves and sliders, rocking levers, connecting rods, crank and cam. The mechanism assembly unit is equipped with a device to prevent the registration of reverse flow according to the norm EN1359.

4.2 Gas meter steel casing

It consists two subassemblies, i.e. top case assembly and bottom case. These units are joint hermetically by means of a casing hoop (sealing band). The following parts belong to the top casing: Stuffing box body with axle as internal and external change gear / a driving pinion.

4.3 Index

It is connected to the top casing with screws and is protected from outside by the index housing, which can be locked by a seal. The index design allows connecting a Pulse Transmitter or “Raypulse” AMR Module at any time of the gas meter operation without damaging the seal and thus mechanical gas meter can be converted to smart gas meter.

5. Additional equipment

Upon request of our clients the gas meter can be additionally equipped with:

Brass Adaptor – 2 pcs	Washer – 2 pcs	"Raypulse" - AMR Module

6. Conformity assessment

Gas meters are required to comply with the 2014/32 / EU (MID) conformity assessment. Proof of conformity assessment is stamped by the manufacturer. The deadline for reporting to the next metrological control is the separate national regulations. The conformity assessment will be invalidated if the meter is faulty.

6.1 Declaration of conformity

CE	CE -DELARATION OF CONFIRMITY
EN 1359:2017 as Directive MID (2014/32/EC)	

Disposal of Gas Meter:

Material used is non-hardous and can be recycled. Cut/remove sealing band of the meter, separate metal, plastic, rubber parts and send it for recycling to authorized agencies/recyclers as per relevant state / country legal norms.

Manufacturer:

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