



SICONIA U-Slim platform

Domestic ultrasonic smart gas meter range

Description

The Siconia® U-Slim is a range of ultrasonic gas meters for H, L, E families of gas, targeted for residential use. It is designed and built according to the highest standards, in compliance with the EN 14236, EN 16314 norms and the MID directive.

The Siconia® U-Slim is based around a new embedded electronic and mechanical platform which provides the following features:

- · High measurement accuracy with the ultrasonic sensor, including low flow rates, low pressure losses and instantaneous flow measurement.
- · Modular platform design adapted to different market needs (modularity in the use of several sensors, functionalities and dimensions around the same metrological concept).
- · New generation of microcontroller with higher performances, expanded RAM and increased flash memory. This means the possibility to embed more complex functionalities, and the ability to handle demanding applications of the future
- Excellent communication performances in WMBUS at 868MHz. Other communication technologies such as NBIOT and LoRa are included in our roadmap.
- · No moving parts inside. It is compact, lighter, quieter, and increasingly suited to a green and sustainable market (fewer plastic parts, reduced packaging and easier to transport).
- · Alarms are used in the event of backflow (volume or time can be customised), air detection and leak detection. Alarms can also be triggered in the event of mechanical tampering or attempted unauthorised access.
- · Hydrogen and biogas compatibility.
- · Resistance against impurities and contaminants.
- \cdot Dot matrix LCD display with multilevel menu and high refresh rate. Optional backlight version available
- · Remote control of the valve for gas flow management*
- \cdot Logging of gas measurement with or without temperature compensation according to the model (Vb or Vc)
- $\cdot \ \mathsf{Remote} \ \mathsf{firmware} \ \mathsf{update} \ \mathsf{(both} \ \mathsf{legally} \ \mathsf{and} \ \mathsf{non-legally} \ \mathsf{relevant} \ \mathsf{firmware})$

The quality of the plastic and metal components makes the meters highly sensitive, even with a minimal gas flow, and ensures excellent performance over time. The measurement precision and accuracy are guaranteed by the production, control process and by an automated calibration system, which is used at the internal Metrological Laboratory upon 100% of the meters manufactured. This accuracy and reliability of the measurement over time is guaranteed by the high precision ultrasonic sensor that is integrated into the electronics of the meter.

REFERENCES

EEC directives:

- 2014/32/UE MID
- 2014/34/UE ATEX (II 3G Ex ic IIA T3 Gc)
- 2014/53/UE RED
- 2011/65/UE RoHs

EU standards:

- EN 14236:2018
- EN 16314:2013
- WELMEC 7.2

Product details

 Model
 U-Slim4
 U-Slim6

 Type
 Smart ultrasonic

 Caliber
 G4
 G6

 Max. operating pressure (mbar)
 500

 Min. flow rate (m3/h)
 0,04
 0,06

 Max. flow rate (m3/h)
 6
 10

 Starting flow rate (m3/h)
 0,010
 0,015

 220mm ¾", NPR 7028-2022
 220mm ¾", NPR 7028-2022

Connection type* 110 mm 7/8" or 1"1/4, ISO 228-1 160mm 7/8" or 1"1/4, ISO 228-1 160mm 7/8" or 1"1/4, ISO 228-1 160mm 7/8" or 1"2/4, ISO 228-1 160mm 7/8" or 25°C / +55°C

Operating temperature range* -10°C / +40°C or -25°C / +55°C

Temperature Base* Tb 0°C or Tb 15 °C

Maximum computable 99999.9999 m³

Minimum reading value 0.0001 m³

Protection rating* Up to IP67

Environmental class M1/E1

A: 220 mm, B: 169 mm, C: 315 mm, D: 128 mm, E: 40 mm

General Dimensions 220 mm
G4 and G6

A: 110 mm, B: 160 mm, C: 182 mm, D: 130 mm, E: 54 mm

eneral Dimensions 110 mm

A: 160 mm, B: 169 mm, C: 255 mm, D: 128 mm, E: 40 mm

eneral Dimensions 160 mm G4*



Characteristics

- Casing in galvanized steel sheet with polyester powder paint
- "H3" outdoor environments option*
- Class 1.5 with high stability of measurement
- Compatible measurement up to 23% Hydrogen blend
- U-Slim meter available in the configuration with or without replaceable batteries*
- Integrated mechanical tamper and electromagnetic interference protection
- \bullet 2 batteries for metrological unit and communication module (lifetime up to 20 years)
- ATEX Zone 2-II 3G Ex h ic IIA T3 Gc

*further information and availability dates can be detailed upon request

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Sagemcom Energy & Telecom SAS

Headquarters : 4 allée des Messageries

92270 Bois-Colombes - FRANCE

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

