### Domusnext<sup>®</sup> 2.0 Vision

A new innovative Smart gas meter small and easy to install displaying readings in standard cubic meters,

no external devices needed for conversion and for communication,

for an accurate billing transparent to the end customer.



#### MAIN BENEFITS

The Vision meter is available with the following communication technologies:

Wireless MBus 169 MHz and NB-IoT Others on request

Integrated shut-off valve, remotely controllable for end-customer contract management and prepayment.

## An innovative static measurement principle

Measurement is intrinsically compensated in temperature and independent from pressure. Measurement is displayed directly in standard cubic-meters\*.

The measurement technology is based on a MEMS "Micro Thermal Flow Sensing" principle. Two temperature sensors are symmetrically placed around a micro-heating element: under stopped-flow conditions, both sensors measure the same temperature. As the flow rate increases, heat is carried away from the upstream sensor towards the downstream sensor and the measured temperature difference between the two sensors is proportional to the mass flow rate.

#### ■ Transparent billing to the end customer

Memory storage of daily or half-hourly consumption, with frequent communication of data, means customer invoicing can be transparent and timely, referring to the exact billing period, with low operating costs.

#### ■ Gas recognition

The accuracy of measurement is not affected by changes in the chemical composition of the distributed gases within the  $2^{nd}$  family groups H, L and E (as defined by EN 437:2003) including mixtures with  $H_2$  concentration up to 23%. By measuring specific gas properties, a pre-set correction process for deviation in the gas composition guarantees the required accuracy levels without any additional adjustment. The meter is also able to operate in air (test phase), by calibrating itself accordingly without any additional adjustment.

#### ■ NFC Communication

Local communication via NFC to improve interaction with the end user.

#### Alarms

Able to send safety and tampering specific alarms.

#### Accuracy of measurement at every temperature and at every pressure

Domusnext® meters provide an exact measurement of supplied gas in standard m³, avoiding the use of annual average temperatures and pressures, which inevitably lead to approximate values and errors of estimation. These errors then affect the amount billed.

#### Innovation and reliability

Despite being highly innovative, Domusnext® meters have passed the most stringent reliability tests, conducted by notified body and designated laboratories recognised at European level. This certifies the robustness of MeteRSit meters and the accuracy of their measurements, even at high concentrations of dust and contaminants in the gas distribution networks. The high accuracy of the measuring principle ensures the gas meter compliance with the MID (Measuring Instruments Directive). Such micro-thermal measuring principle is also commonly used in laboratory instruments. Resistance to contaminants and dust is ensured by design.

#### Connectivity

The application software can be remotely updated.

The meter is equipped with an Integrated high performance antenna.

#### ■ Noise level

Thanks to the static technology adopted, the meter has a very low level of noise and practically no wear. This characteristic is well appreciated in particular for domestic application.

\* According to UNI EN ISO 13443 standard



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#### **Production Plants**

Rovigo, Italy Brasov, Romania Tunisi, Tunisia

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# Technical data

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**G4 Vision** 

#### **Type Approval**

Measuring range

Standard temperature for volume output

Standard pressure for volume output

**Operating temperature** 

**Gas application** 

Max. operating pressure

**Accuracy class** 

Measuring Accuracy Q<sub>min</sub> Q<sub>t</sub>

Measuring Accuracy Q<sub>t</sub> Q<sub>max</sub>

Max. Pressure drop

**Welmec SW Guideline extensions** 

Nr. of tariffs registers

Depth of consumption registers @ 1 day rate

Nominal Diameter DN

Inlet & Outlet Distance

Weight

Resistance to water, dust and impact

ATEX

Display

Valve
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Maximum leakage for the valve

**Battery supply** 

Communication technologies

**Communication protocol** 

MID Module B and D

OIML R137-1 (2012)

0.04 - 6.0 m<sup>3</sup>/h

15 °C; 0°C; 20°C

1013.25 mbar

-25 °C to 55 °C

2<sup>nd</sup> Family Group H, L, E (EN 437) including

mixtures with H<sub>2</sub>

500 mbar

1.5

± 3.0 %

± 1.5 %

<2 mbar at Q<sub>max</sub>

Extensions L, T, S, I2, D

3

72 days

G 1" 1/4 (ISO 228/1)

110 mm;

2.0 kg

IP 66, IK 08

Ex II 3G Ex nA IIA T6 Gc

2 lines multi-segment display

Upper line 7 characters

Lower line 9 digits

Automotive range –30°C to +85°C

Compliant with EN 16314

120 cc/h at Pin = 500 mbar

2 x 3.6 V lithium cell (TLC)

Wireless MBus 169 MHz, NB-IoT and NFC

DLMS/COSEM

AES 128-bit encrypted communication





