


Issued by	NMI Certin B.V., designated and notified by the Netherlands to perform tasks with respect to conformity modules mentioned in article 9 of Directive 2004/22/EC, after having established that the Measuring instrument meets the applicable requirements of Directive 2004/22/EC, to:	
Manufacturer	MeterSIt Viale dell'Industria, 31 35129 Padova Italy	
Measuring instrument	An <b>Electronic Gas meter</b>	
	Type	: x485xxx
	Manufacturer's mark or name	: MeterSIT
	Destined for the measurement of	: Gas volume of natural gas, type H or L
	Accuracy class	: Class 1,5
	Conversion	: The meter presents the volume at base conditions only
	Environment classes	: M2 / E2
	Gas temperature range	: - 25 °C / +55 °C
	Ambient temperature range	: - 25 °C / +55 °C
	Designed for	: Condensing humidity
	Intended location	: Open
	Further properties are described in the annexes: – Description T10362 revision 12; – Documentation folder T10362-9.	
Valid until	1 July 2021	
Remarks	This revision replaces the earlier versions, including its documentation folder.	

Issuing Authority **NMI Certin B.V., Notified Body number 0122**  
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Head Certification Board

## 1 General information about the gas meter

All properties of the gas meter, whether mentioned or not, shall not be in conflict with the legislation.

The meter is based on a thermal principle as described in documentation no. 10362/0-02 and indicates the measured quantity of gas at base temperature and base pressure. Therefore paragraph 2.2 of MI-002 of the MID is applicable.

### 1.1 Essential parts

Description	Documentation	Remarks
flow sensor	10362/0-02; 10362/10-01 (G4/G6) 10362/2-01 (G10/G16/G25)	The flow sensor is based on the thermal gas measurement principle, as described in document 10362/0-02 and 10362/2-01.
printed circuit boards	10362/0-02; 10362/6-01; 10362/10-01 10362/2-01; 10262/3-01; 10362/6-02	G4/G6 G10/G16/G25

### 1.2 Essential characteristics

1.2.1 See EC type-examination Certificate no. T10362 revision 12 and the characteristics mentioned below.

1.2.2 Approved meter types : x485xxx

Type	G-value	Q <sub>max</sub> [m <sup>3</sup> /h]	Q <sub>min</sub> [m <sup>3</sup> /h]	Q <sub>t</sub> [m <sup>3</sup> /h]
x4850xx	G4	6	0,040	0,6
x4851xx	G6	10	0,060	1,0
x4852xx	G10	16	0,100	1,6
x4853xx	G16	25	0,160	2,5
x4854xx	G25	40	0,250	4,0

An explanation of all type designations is presented in chapter 13 of document no. 10362/0-02 and 10362/2-01.

1.2.3 Type of gas

- The meter is suitable for a natural gas type H, with a Gross Wobbe Index between 45,7 MJ/m<sup>3</sup> and 54,7 MJ/m<sup>3</sup> at 15°C and 1,01325 bar, or;
- The meter is suitable for a natural gas type L, with a Gross Wobbe Index between 39,1 MJ/m<sup>3</sup> and 44,8 MJ/m<sup>3</sup> at 15°C and 1,01325 bar.

1.2.4 Maximum p<sub>max</sub> : 500 mbar

1.2.5 Sample frequency

The gas meter uses a random sample time with an average of 2,0 seconds. Alternatively a specific test mode can be activated for a maximum duration of 48 hours, during which the gas meter uses a fixed sample time of 0,4 seconds.

1.2.6 Amount of registers : max. 3

1.2.7 Error messages : see documentation no. 10362/0-02, chapter 9

1.2.8 Software specification (refer to WELMEC guide 7.2):

- Software type P;
- Risk Class C;
- Extension L, T and S.

Software version	Identification number (checksum)	G-value	Remarks
E132 E167 G182 G192 G193 I192	03EF D029 A1A8 18FB 03B6 8F41	G4	The software version and checksum are displayed in the display sequence.
A132 A167 J182 J192 J193 L192	CA53 7199 BDC1 3484 4586 D8DD	G6	
B166 B183 B192	6CA4 82D8 B8EF	G10	
F154 F166 C182 C192	E336 7D4C C9BE BC94	G16	
H154 H166 D182 D192	6B95 F29E E589 E889	G25	

## 1.3 Essential shapes

- 1.3.1 The nameplate is bearing at least, good legible, the following information:
- CE marking including the supplementary metrological marking (M + last 2 digits of the year in which the instrument has been put into use);
  - Notified Body identification number, following the supplementary metrological marking;
  - EC type-examination Certificate no. T10362;
  - identification mark or name of the manufacturer;
  - serial number of the meter and year of manufacture;
  - mechanical environment class;
  - electromagnetic environment class;
  - $Q_{max}$ ,  $Q_t$  and  $Q_{min}$ ;
  - maximum working pressure  $p_{max}$ ;
  - ambient temperature range;
  - gas temperature range;
  - resistance to high temperatures, marked with a 'T';
  - groups of gases for which the meter is approved;
  - accuracy class;
  - base temperature;
  - base pressure;
  - for use in an open environment it is marked with 'H3'.
- An example of the markings is shown in document no. 10362/12-01.

- 1.3.2 Sealing: see chapter 2.

## 1.4 Conditional parts

- 1.4.1 Housing  
The gas meter has a housing, which has sufficient tensile strength.  
The meter G10/G16/G25 can be closed using screws or rivets that are evenly divided over the top cover.  
Examples of the housing are stated in documentation no. 10362/0-02, 10362/2-01, 10362/1-01, 10362/4-01 and 10362/10-01.
- 1.4.2 Indicating device  
The indication takes place in  $m^3$ , by at least 5 digits (G4&G6) or at least 6 digits (G10&G16&G25) before the comma and 3 digits after the comma. The way of presentation is described in document no. 10362/0-02.
- 1.4.3 Tariff control  
The meter is provided with more than one register. A tariff control is available by means of an internal clock.
- 1.4.4 Communication  
The meter is provided with communication possibilities via GPRS or RF MBus (169 MHz), as described in document no. 10362/0-02, 10362/2-01, 10362/3-01, 10362/6-01, 10362/6-02 and 10362/10-01. Via the communication no legally relevant data can be altered.

- 1.4.5 Valve  
The x4850xx and x4851xx type meters are provided with a valve as described in document no. 10362/0-02. Optionally the valve can be removed.
- 1.4.6 Battery  
The gas meter is powered by either one Lithium 3,6 V DC size D battery, 2 Lithium 3,6 V DC size D batteries (G4 and G6) or by 1 size D battery + 1 size AA battery (G10, G16 and G25). The normal lifetime is at least 15,8 years for G4 and G6 MBus meters, 13 years for G4 and G6 GPRS meters and 8,2 years for G10, G16 and G25 GPRS meters. A low battery alarm is generated after 90% of lifetime. On request alarms can be issued also for additional battery levels
- 1.4.7 Pulse Output  
The meter G10/G16/G25 can be equipped with a pulse output, as described in document number 10362/6-02.

## 1.5 Conditional shapes

### 1.5.1 Connection

#### G4 and G6

The meter is executed with a double pipe connection.  
The diameter of the connections is at least 32 mm.  
The distance between the middle of the in- and outlet connection is 110 mm maximally.

#### G10, G16 and G25

The meter is executed with a double pipe connection.  
The diameter of the connections is at least 45 mm.  
The distance between the middle of the in- and outlet connection is 335 mm maximally.

## 2 Seals

The front plastic meter cover, that contains the electronics and the battery compartment, is closed by welding to either the plastic base (G4 and G6) or to the metal meter case (G10, G16 and G25) and cannot be opened without damage. Therefore no specific sealing is applied.

The metal meter case that contains the flow sensor of the G10, G16 and G25 sizes is either closed by:

- Rivets and cannot be opened without damage and therefore no specific sealing is applied.  
or
- Screws in this case the meter needs to be sealed with:
  - at least 2 seals or rivets, see example in documentation no. 10362/2-02;  
or
  - the top cover plate need to be sealed to the steel enclosure, see example in documentation no. 10362/3-02.

The battery is integral with the gas meter but in a separate compartment, which can be sealed by a utility seal. See document no. 10362/0-02.