

Issued by NMI Certin B.V.,
designated and notified by the Netherlands to perform tasks with respect to conformity modules mentioned in article 17 of Directive 2014/32/EU, after having established that the Measuring instrument meets the applicable requirements of Directive 2014/32/EU, to:

Manufacturer **MeterSIt**
Viale dell'Industria, 31
35129 Padova
Italy

Measuring instrument An **Electronic Gas Meter**

Type : x485xxx

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

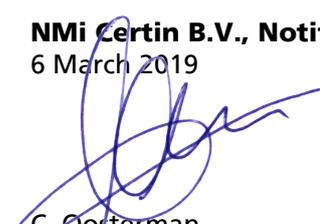
Intended location : Open

Further properties are described in the annexes:
– Description T10362 revision 27;
– Documentation folder T10362-21.

Valid until 1 July 2021

Remark This revision replaces the previous versions, including its documentation folder.

Issuing Authority **NMI Certin B.V., Notified Body number 0122**
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C. Oosterman
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.

The meter is executed as follows:

- A gas meter with an electronic register, indicating the volume at base conditions only, conform paragraph 2.2 of ANNEX IV (MI-002).

1.1 Essential parts

Description	Documentation	Remarks
flow sensor G1.6 / G2.5 / G4 / G6 G10 / G16 / G25 MMU25 / MMU40	10362/0-02 or 10362/10-01 or 10362/16-01 or 10362/16-02 10362/2-01	The flow sensor is based on the thermal gas measurement principle, as described in documents 10362/0-02 and 10362/2-01.
printed circuit boards G1.6 / G2.5 / G4 / G6 G10 / G16 / G25 MMU25 / MMU40	10362/0-02 or 10362/6-01 or 10362/10-01 or 10362/13-01 or 10362/16-01 or 10362/16-02 or 10362/18-02 and 10362/18-05 or 10362/18-03 and 10362/18-06 or 10362/18-04 and 10362/18-07 or 10362/25-01 or 10362/24-01 and 10362/24-02 or 10362/26-01 or 10362/26-02 and 10362/26/03 10362/2-01 or 10262/3-01 or 10362/6-02 or 10362/22-02 and 10362/25-02 or 10362/25-01	

1.2 Essential characteristics

1.2.1 See EU-type examination certificate no. T10362 revision 27 and the characteristics mentioned below.

1.2.2 Approved meter types : x485xxx

Type	G-value	Maximum Q_{max} [m ³ /h]	Minimum Q_{min} [m ³ /h]	Minimum Q_t [m ³ /h]
x4850xx	G1.6	2,5	0,016	0,25
	G2.5	4	0,025	0,4
	G4	6	0,04	0,6
	G4 extended	6	0,016	0,25
x4851xx	G6	10	0,060	1,0
x4852xx	G10	16	0,100	1,6
x4853xx	G16	25	0,160	2,5
	MMU25			
x4854xx	G25	40	0,250	4,0
	MMU40			

If higher values are chosen for Q_{min} and/or lower values for Q_{max} , it has to be taken into account that $Q_{max} / Q_{min} \geq 150$. For Q_t it has to be taken in account that the minimum value is not lower than the minimum value as indicated in the table above and that $Q_t \leq 0,1 Q_{max}$.

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/m³ and 54,7 MJ/m³ 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/m³ and 44,8 MJ/m³ at 15°C and 1,01325 bar.

1.2.4 Maximum p_{max} : 0,5 bar

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. The test mode can be activated through optical communication or as described in document no. 10362/15-01.

1.2.6 Amount of registers : max. 3

1.2.6.1 Error messages : see documentation no. 10362/0-02, chapter 9 and 10362/25-01 chapter 10.

1.2.7 Software specification (refer to WELMEC 7.2):

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

Software version	Identification number (checksum)	G-value	Remarks
EL10	ADB2	G1.6	The software version and checksum are displayed in the display sequence.
EL10	ADB2	G2.5	
E132	03EF	G4	
E167	D029		
G182	A1A8		
G192	18FB		
G193	03B6		
I192	8F41		
G194	1CCF		
GL01	5812		
GL10	8096		
EL10	ADB2		
A132	CA53	G6	
A167	7199		
J182	BDC1		
J192	3484		
J193	4586		
L192	D8DD		
J194	5FFA		
JL01	B0DE		
JL10	7EEA		
B166	6CA4	G10	
B183	82D8		
B192	B8EF		
B194	22FA		
BL01	BD57		
BL10	4175		
F154	E336	G16 MMU25	
F166	7D4C		
C182	C9BE		
C192	BC94		
C194	F780		
CL01	62F5		
CL10	B51F		
CL11	F7E8		

Software version	Identification number (checksum)	G-value	Remarks
H154	6B95	G25 MMU40	
H166	F29E		
D182	E589		
D192	E889		
D194	416D		
DL01	CBFE		
DL10	38FA		
DL11	3EF9		

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;
 - EU-type examination certificate no. T10362;
 - manufacturer's name, registered trade name or registered trade mark;
 - manufacturer's postal address;
 - 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' (optional);
 - 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. 10362/16-01, 10362/20-01 and 10362/25-01.

- 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 meters G10, G16, G25, MMU25 and MMU40 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, 10362/10-01, 10362/16-01, 10362/16-02, 10362/19-01 and 10362/25-01.

- 1.4.2 **Indicating device**
The indication takes place in m³, by at least 5 digits (G1.6, G2.5, G4 and G6) or at least 6 digits (G10, G16, G25, MMU25 and MMU40) 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 **Valve**
The x4850xx and x4851xx type meters are provided with a valve as described in document no. 10362/27-01 or 10362/27-02. Optionally the valve can be removed.
- 1.4.5 **Communication**
The meter is provided with communication possibilities via GPRS, RF MBus (169 MHz) or NB-IoT, as described in documents no. 10362/0-02, 10362/2-01, 10362/3-01, 10362/6-01, 10362/6-02, 10362/10-01, 10362/16-01, 10362/16-02 and 10362/18-01. Via the communication no legally relevant data can be altered.
- 1.4.6 **Pulse Output**
The meters G10, G16, G25, MMU25 and MMU40 can be equipped with a pulse output, as described in document number 10362/6-02 and 10362/25-01.
- 1.4.7 **Battery power supply**
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 (G1.6, G2.5, G4, G6, G10, G16, G25, MMU25 and MMU40) or by 1 size D battery + 1 size AA battery (G10, G16 and G25).
The normal lifetime is at least 15,8 years for G1.6, G2.5, G4 and G6 MBus meters, 13 years for G1.6, G2.5, G4, G6, G10, G16, G25, MMU25 and MMU40 GPRS meters with size D internal battery and 8,2 years for G10, G16 and G25 GPRS meters with AA internal battery.
A low battery alarm is generated after 90% of lifetime. On request alarms can be issued also for additional battery levels.

1.5 **Conditional shapes**

1.5.1 **Connection**

G1.6, G2.5, 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, G25, MMU25 and MMU40

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 following items of the meter have metrological sealing:

The front plastic meter cover, that contains the electronics and the battery compartment, is closed by welding to either the plastic base (G1.6, G2.5, G4 and G6) or to the metal meter case (G10, G16, G25, MMU25 and MMU40) 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, G25, MMU25 and MMU40 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, an example is shown in documentation no. 10362/2-02;
or
 - the top cover plate need to be sealed to the steel enclosure, an example is shown 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.