

EU-type examination Certificate

Number **T10382** revision 4
Project number SO16201752
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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 Apator Metrix S.A.
Grunwaldzka 14
83-110 Tczew
Poland

Measuring instrument **A Diaphragm Gas Meter with temperature conversion**
Type : UG T
UG T HybridSmart

Destined for the measurement of : Gas volume
Accuracy class : Class 1,5
Environment classes : M1 / E1
Ambient temperature range : - 25 °C / +55 °C
Gas temperature range : - 25 °C / +40 °C
Location : Closed

G-value	Q_{\max} [m ³ /h]	Q_{\min} [m ³ /h]	Q_t [m ³ /h]	V [dm ³]
4	6	0,040	0,6	1,15; 1,20; 1,90
2,5	4	0,025	0,4	1,15; 1,20; 1,90
1,6	2,5	0,016	0,25	1,15; 1,20; 1,90

Further properties are described in the annexes:
– Description T10382 revision 4;
– Documentation folder T10382-4.

Valid until 9 September 2021

Remarks This revision replaces the earlier versions, including its documentation
folder.

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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 gas meter is executed with a mechanical register, indicating the volume at base conditions, conform paragraph 2.2 of ANNEX IV (MI-002).

1.1 Essential parts

Description	Documentation	Remarks
Construction	10382/0-01; 10382/2-01; 10382/4-01	-
Diaphragm	10382/0-02; 10382/2-02	Material 401615P or 401617P, manufacturer EFFBE. Material 0P3NV/205, manufacturer SMI (type CSQ3).
Valve and valve seat	10382/0-03; 10382/4-02	Material Delgra 90 and Delgra 100, manufacturer Elchi. Slider rods material brass or plastic (PBT), coupling sleeve material brass or stainless steel.
Temperature compensation	10382/0-05; 10382/2-03; 10382/4-04	-

1.2 Essential characteristics

- 1.2.1 See EU-type examination certificate no. T10382 Revision 4 and the characteristics mentioned below:

maximum p_{\max}	
Steel housing	: 0,5 bar
Aluminium Housing	: 2 bar

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. T10382;
 - manufacturer's name, registered trade name or registered trade mark;
 - manufacturer's postal address;
 - identification mark or name of the manufacturer;
 - serial number of the meter and year of manufacture;
 - Q_{max} , Q_t and Q_{min} ;
 - cyclic volume;
 - maximum working pressure p_{max} ;
 - ambient temperature range;
 - accuracy class;
 - base temperature (t_b);
 - specific centre temperature (t_{sp});

In the manual are mentioned:

- mechanical environment class;
- electromagnetic environment class;

Examples of the markings are shown in document no. 10382/4-05.

- 1.3.2 Sealing: see chapter 2.

1.4 Conditional parts

- 1.4.1 Construction
- In addition to the essential parts as mentioned at 1.1, the meter contains at least the following conditional parts:
- housing;
 - transmission;
 - register.

The meter can also be provided with low frequency impulse output.

- 1.4.2 Housing
- The gas meter has a housing, which has sufficient tensile strength.
- The cover is made of steel sheet, the lower and upper case are connected with each other by a clamp or the cover is made of aluminium alloy, the lower and upper case are connected with each other by screws.
- The counter case is also connected to the upper case by screws. Examples of the housing are stated on drawings no. 10382/0-07, 10382/1-02, 10382/1-03, 10382/1-04, 10382/0-08, 10382/1-05, 10382/1-06, 10382/2-04 and 10382/2-05.
- 1.4.3 Transmission
- The transmission between the measuring part and the register is executed via a magnetic coupling.



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1.4.4 Register

The indication takes place in m³, by at least 5 drums before the comma and 3 drums after the comma. In drawing nr. 10382/0-09 (UG T) and 10382/4-06 (UG T HybridSmart) an example of the counter is presented. The counter is adjustable via an adjusting wheel, see drawing nr. 10382/4-07, 10382/4-08 and 10382/4-09.

1.4.5 A Shut off valve as indicated in document 10382/4-03 (optional).

1.5 Conditional shapes

Connection

The meter is executed with a double pipe connection.

The diameter of the connections is at least 20 mm. The distance between the middle of the in- and outlet connection is 250 mm maximally.

The diameter of the single pipe connection is at least DN25.

1.6 Non-essential parts

1.6.1 Reverse stop for preventing registration in reversed flow direction.

1.6.2 Pulse generator

1.6.3 Hybrid Smart (optional) external encoder type "GWFcoder" connected to the output shaft on the mechanical index see document 10382/4-06.

1.6.4 Radiomodule (HybridSmart only).

2 Seals

The following items of the meter are sealed:

- The entrance to the register is sealed with one or more seals;
- The entrance to the meter housing (aluminium housing only).

See drawings no. 10382/0-11, 10382/2-06 (UG T) and 10382/4-06 (UG T HybridSmart) for an example of the sealing.