



Organismo Notificato n° 2142
Notified Body n° 2142



PRD N° 0247 B

Membro degli Accordi di Mutuo Riconoscimento
EA, IAF e ILAC.

Signatory of EA, IAF and ILAC Mutual Recognition
Agreements

Certificato di esame UE di tipo n° I-2142-MI002-TG048 Rev. 0

EU type examination certificate no. I-2142-MI002-TG048 Rev. 0

Emesso da:

Issued by

Tifernogas srl

Via Rodolfo Morandi n° 44/d - 06012- Città di Castello (PG) - Italia

Rilasciato a:

Issued to

Mesura Metering Srl

Via Statale 11/13, 25011 Calcinato (BS)

Riferimenti legali:

In accordance with

Direttiva 2014/32/UE del Parlamento europeo e del Consiglio del 26 febbraio 2014 relativa agli strumenti di misura integrata nell'ordinamento Italiano con D.Lgs n° 22 del 02 febbraio 2007 (Gazzetta Ufficiale Italiana n° 64 del 17 marzo 2007) e con con D.Lgs n° 84 del 19 maggio 2016 (Gazzetta Ufficiale Italiana Serie Generale n°121 del 25 maggio 2016 - Suppl. Ordinario n° 16). Modulo B.

In accordance with the Directive 2014/32/UE of the European Parliament and Council of february 26 , 2014 on measuring Instruments implemented in Italian law by D.Lgs n° 22 of 02 february, 2007 (Italian Gazzetta Ufficiale n° 64 of march 17 , 2007) and by D.Lgs n° 84 del 19 maggio 2016 (Gazzetta Ufficiale Italiana Serie Generale n °121 del 25 maggio 2016 - Suppl. Ordinario n°16). Module B.

Norma applicata:

Applied standard

EN 1359:2017 – “ Gas meters - Diaphragm gas meters”

Tipo di strumento:

Type of instrument

Misuratore del gas a pareti deformabili dotato di un dispositivo meccanico incorporato di conversione della temperatura del gas
Diaphragm gas meter equipped with a mechanical built-in gas temperature conversion device

Fabbricante:

Manufacturer

Mesura Metering Srl - Via Statale 11/13, 25011 Calcinato (BS)

Modelli:

Types designation

AG2,5TC / AG4TC

Marca:

Brand

Mesura Metering Srl

Caratteristiche:

Characteristics

Classe di precisione:	1,5
<i>Accuracy Class</i>	
Ambiente Meccanico/Elettromagnetico:	M1/E1
<i>Mechanical/Electromagnetic classes</i>	
Campo di temperatura del gas $[t_g]$:	$(-25 \div +40) ^\circ\text{C}$
<i>Temperature range $[t_g]$:</i>	
Campo di temperatura ambiente $[t_m]$:	$(-25 \div +55) ^\circ\text{C}$
<i>Ambient Temperature range $[t_m]$</i>	
Temperatura di base del gas $[t_b]$:	15 $^\circ\text{C}$
<i>Base gas temperature $[t_b]$</i>	
Temperatura centrale per misuratori con conversione di temp. $[t_{sp}]$:	20 $^\circ\text{C}$
<i>Specified centre temperature for meters with temp. conversion $[t_{sp}]$</i>	
Resistente alle Alte Temperature:	“T”

Nota: La presente certificazione è costituita da 02 pagine. Può essere riprodotta solo integralmente. La certificazione senza firma non è valida.

Note: This certificate is composed by 02 pages. It will be only reproduced in full. The certificate is only valid with signature.

Tifernogas srl via Rodolfo Morandi, 44/d 06012 Città di Castello (PG) ITALY - Tel. +39 0758554999 - +39 0758558592 Fax +39 0758526491 info@tifernogas.it - www.tifernogas.it



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PRD N° 0247 B

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Campo di Misura/Range

Tipo Type	Q _{max} [m ³ /h]	Q _{min} [m ³ /h]	Q _t [m ³ /h]	Q _r [m ³ /h]	V [dm ³ /h]	P _{max} [bar]
AG4TC	6	0,040	0,6	7,2	1,2	0,5 ^(*)
AG2.5TC	4	0,025	0,4	4,8	1,2	0,5 ^(*)

(*) per misuratori resistenti alle alte temperature P_{max} = 0,1 bar / for gas meters high ambient temperature resistant P_{max} = 0,1 bar

Allegato:

Annex:

Annex A al Certificato di esame UE di tipo n° I-2142-MI002-TG048 Rev.0

Annex A to EU type examination certificate no. I-2142-MI002-TG048 Rev. 0

Luogo e data di rilascio: Città di Castello, 22nd June 2023
Place and date of issue

Valido fino al 24th February 2029
Valid until

Numero pagine: 2
Number of pages

Tifernogas srl
Direttore/Head of O.N. n. 2142
Dott. ing. Gilberto Serafini

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Annex A
Mesura Metering Srl

Activity MID:
M Mes 2023 2 TG048_B rev.0 parallel to TG017 Natek

Annex A to EU Type Certificate no. **I-2142-MI002-TG048 Rev. 0**
Annex A al certificato UE di tipo n. I-2142-MI002-TG048 Rev. 0

Summary

1. General information	2
2. Essential parts	3
3. Essential characteristics	4
3.1 Measuring range	4
3.2 Totalization of measured volumes	4
3.3 Unit of measure	4
3.4 Additional components	5
4. Legal seals and their position	5
4.1 Legal Seal	5
4.2 Seals plan	5
4.3 Main plate	6
5. Technical documentation	8
6. Production	10
6.1 In order to achieve high metrological quality of gas meters it is important to follow the production steps below:	10
6.2 Test bench for final check of gas meters	10
6.3 Requirements for admission to the testing of gas meters	10
6.4 Specifications for operating	11
7. Revision History	11





1. General information

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

This document summarizes the status of the characteristics of the meters produced by the Manufacturer Mesura Metering Srl, models AG2,5TC / AG4TC, designed by NATEK ENERJI EKIPMANLARI SAN. Ve TIC A.S - Istanbul, Turkey.

The instruments in question are the volumetric membrane type, accuracy class 1,5. The meters have been approved according to the MID Directive 2014/32/EU that allowed the issuance of this EU-type certificate no. I-2142-MI002-TG048 Rev. 0 which this document is an attachment.

NOTE: The EU-type certificate no. I-2142-MI002-TG048 Rev. 0 is the parallel certificate to EU-type certificate no. I-2142-MI002-TG017 Rev.5 of the Manufacturer NATEK ENERJI EKIPMANLARI SAN. Ve TIC A.S.

For general information, refer to the following documents:

- EU type examination certificate type no. I-2142-MI002-TG048 Rev. 0
- Practice MID number: M Mes 2023 2 TG048_B rev.0 parallel to TG017 Natek

NOTE:

The number of the activity MID coincides with the number assigned to the relative folder, this choice was made in order to maintain complete traceability between the information defined in the activity MID and the technical information collected in the Documentation Folder.

It should be noted that the information contained in the Documentation Folder is the exclusive property of the Manufacturer and therefore cannot be disclosed except as a result of specific official authorization by the legitimate owner (Manufacturer) or following an official request by the Authorities (for example, the Ministry of Economic Development, Judicial Authority Bodies, etc.).



2. Essential parts

The design, metrological and mechanical characteristics comply with the indications and requirements imposed by the harmonized standard EN 1359: 2017 concerning membrane volumetric meter equipped with a built-in mechanical device to convert the temperature of the gas for domestic use.

The volume measurement is done by filling and emptying, periodically, the several measurement chambers with deformable partitions.

AG2,5TC / AG4TC gas meters are composed by an internal measurement part, a casing and an index. The casing of gas meter is manufactured in drawn steel.

The maximum nominal permissible pressure is 0,5 bar. The inlet and outlet gas are fixed on the cover by crimping operation. Connections distance is 110 mm or 130 mm.

The gas meter consists of four chambers with deformable partitions closed with diaphragms. The chambers are free swinging (with no delimited measure spaces). Each chamber has a grid with a distribution tray.

The translational movement of the chambers and drawers is transformed into a rotary motion through a crank mechanism.

Through a special mechanism the output shaft of the horizontal motion starts up. The meter has a device which blocks any unauthorized operation of the index (reverse flow device).

The meter has internally a mechanical element that, by using the possibility of lengthening or shortening with the temperature, is able to compensate for the variations in specific weight of the gas, thus changing the volume of the gas.

The mechanical element consists of a bimetallic blade sensitive to temperature and based on the variation of this the mechanical element undergoes an elongation (in the presence of positive temperature variations Δt) or a shortening (in the presence of negative temperature variations Δt). The variation of this dimension corresponds to a variation of the crank length that in the transmission system of these meter models corresponds to a variation in volume.

In conclusion, if the measured gas temperature increases, the meter correctly scores a lower volume value than it would have totaled at a lower temperature, this because when the gas temperature increases, at the same pressure, the specific volume increases.

The drive from internal measurement part (gas compartment) to index is via mechanical PTO with topping or otherwise, with magnetic coupling. The meter can be fitted with a static valve set under inlet connection.



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Laboratori Misuratori GAS
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Annex A
Mesura Metering Srl

Activity MID:
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3. Essential characteristics

3.1 Measuring range

Type meter	Q _{min} [m ³ /h]	Q _t [m ³ /h]	Q _{max} [m ³ /h]	Cyclic Volume [dm ³]	Nominal Diameter [DN]	Outside diameter [English inches]	wheelbase [mm]	P _{max} (*) [bar]
AG 4TC	0,040	0,6	6	1,2	32	1 1/4"	110	0,5
					25	1"		
					22	7/8"		
					19	3/4"		
					32	1 1/4"	130	
AG 2,5TC	0,025	0,4	4	1,2	32	1 1/4"	110	0,5
					25	1"		
					22	7/8"		
					19	3/4"		
					32	1 1/4"	130	

(*) NOTE:

For gas meters high ambient temperature resistant $P_{max} = 0,1 \text{ bar}$

3.2 Totalization of measured volumes

The index has a numbering device with drums.

The index has an adjustment system with two (2) wheels.

The index can be equipped with a removable pulse generator.

3.3 Unit of measure

The gas meter measures the volume during its operation.

The indication is in m³.

After the comma, there are 3 numbers.

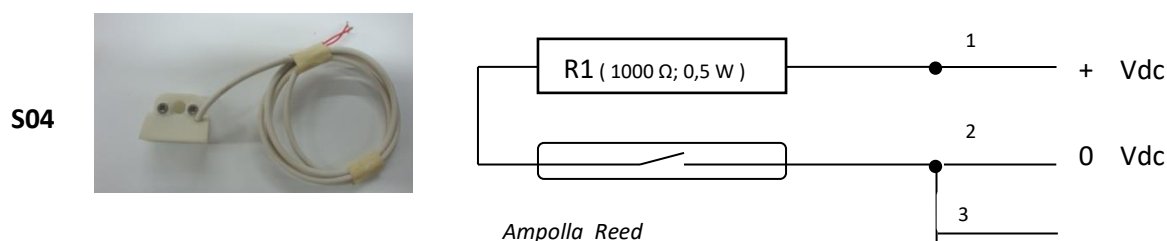
3.4 Additional components

Interfaces (optional)

The meters equipped with mechanical index can be connected to a pulse detector of type S04 which, through the crossing of a permanent magnet records the laps of one of the drums and sends out one (1) pulse at each revolution made by the same drum.

The pulse generator consists of a reed contact where the transmission of a pulse is given by the temporary closing of a switch. Even in case of overloading meter, for the flow $Q_r = 1,2 Q_{max}$, the frequency of pulses does not exceed 5 Hz.

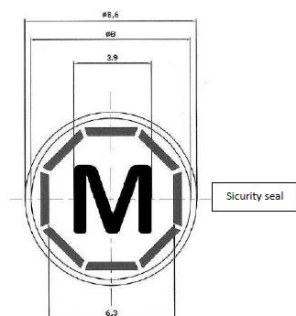
The pulse duration is at least 0,2 seconds.



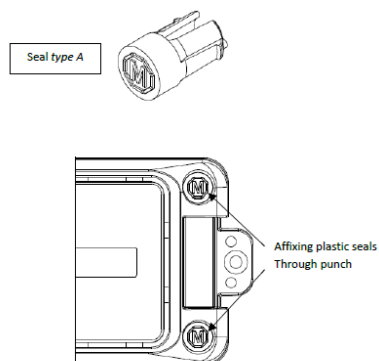
4. Legal seals and their position

The mark used by manufacturer and application points of the seals (seals plan) are contained in documents No. 131030002/3 and 131030002/4 type A:

4.1 Legal Seal



4.2 Seals plan



4.3 Main plate

The main plate of the meter types AG 2,5TC and AG4TC must get the following features:

- The number of the Type examination certificate
- CE marking and metrology additional markings
- The identification mark or name of manufacturer
- The serial number and year of construction of gas meter
- Maximum flow rate, Q_{max} (m³/h)
- Minimum flow rate, Q_{min} (m³/h)
- Maximum working pressure, p_{max} (bar)
- Nominal cyclic volume, V (dm³)
- Accuracy Class: 1,5
- Maximum and minimum ambient temperature: t_m
- Maximum and minimum gas temperature: t_g
- Unit of measure (m³)
- "T" letter if resistant to high environmental temperature
- Possible value of output pulses
- Main plate of the meter



Mesura Metering- Main plate of the meter type AG2.5TC



Mesura Metering- Main plate of the meter type AG2.5TC with additional indication "T"



Mesura Metering- Main plate of the meter type AG4TC



Mesura Metering- Main plate of the meter type AG4TC with additional indication "T"

GENERAL NOTE:

These examples of labels are only templates to indicate the legal information printed on the labels of the meters.

Some indications like:

- Production year (MXX)
- Serial number
- Latest revision of EU Type Certificate

must be updated by the Manufacturer during production, in accordance with the latest MID certification (current revision of the EU-Type Examination no. I-2142-MI002-TG046).



Sample Type "AG2,5TC" - Mesura Metering Srl



Sample Type "AG4TC" - Mesura Metering Srl

Meter can be produced with diaphragms:

Costruttore:

Producer

EFFBE

153, Rue du general de GAULLE
68440 Habsheim
France

Codice di Fabbricazione:

Code

401617P – Tg65 – 0,20mm N° 8359



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Organismo notificato n° 2142

Annex A
Mesura Metering Srl

Activity MID:

M Mes 2023 2 TG048_B rev.0 parallel to TG017 Natek

5. Technical documentation

Documentation no.	Date	Part Description
	01.01.2010	Summary table drawing gas meter type AG
131060001	01.01.2010	Upper casing
231 120 001	01.06.2021	Upper Casing - 130mm
131020001	01.01.2010	Lower casing
231 110 001	01.06.2021	Lower Casing - 130mm
131 110 002	01.06.2021	Crimband - 130mm
131060002	01.01.2010	Reinforcement plate
231 120 002	01.06.2021	Reinforcement Plate - 130mm
131020002	01.01.2010	Crampband
131061001	01.01.2010	Threaded connection
131062003	01.09.2014	7/8" Connection Stud
131063003	01.09.2014	1" Connection Stud
131064003	01.09.2014	3/4" Connection Stud
131060004	01.01.2010	Oring - Ø 1,2 x 35
131060201	01.01.2010	Mechanical drive bushing
131060005	01.01.2010	Oring - Ø 1 x 1,3
131060202	01.01.2010	Vring - Ø 3
131060203	01.01.2010	Mechanical drive bushing
131060204	01.01.2010	L shaft
131060205	01.01.2010	Index connection
131060206	01.01.2010	Washer
131010001	01.01.2010	Main body
131010002	01.01.2010	Side cover left
131010003	01.01.2010	Side cover right
131010009	01.01.2010	Diaphragm shaft short
131010011	01.01.2010	Diaphragm arm
131010012	01.01.2010	Vring - Ø 5
131010013	01.01.2010	Upper arm
131010014	01.01.2010	Rod
131010010	01.01.2010	Diaphragm shaft long
131010015	01.01.2010	Diaphragm
131010016	01.01.2010	Diaphragm flag – inner
131010017	01.01.2010	Diaphragm flag – outer
131010006	01.01.2010	Center shaft
131010007	01.01.2010	Crank
131010008	01.01.2010	Upper crank – worm gear
131010004	01.01.2010	Horizontal shaft
131010005	01.01.2010	Helical gear
131010020	01.01.2010	Valve seat
131010022	01.01.2010	Valve guide holder
131010023	01.01.2010	Valve guide shaft
131010021	01.01.2010	Valve
131010024	01.01.2010	Left arm valve
131010025	01.01.2010	Right arm valve
131010018	01.01.2010	Gas outlet pipe
131010019	01.01.2010	Oring - Ø 1,6 x 29,1
131010026	01.01.2010	Anti reverse device
131030001	01.01.2010	Index plate
131030002	01.01.2010	Index cover
131030003	01.01.2010	White index plate
131030004	01.01.2010	Index window – clear
131030005	01.01.2010	Hole cover plate
131040001	01.01.2010	Index holder
131040005	01.01.2010	Index shaft
131040004	01.01.2010	Decimal roller (first)
131040003	01.01.2010	Roller gear – red
131040002	01.01.2010	Roller gear – black
131051010	01.01.2010	DIN regulation gear small
131051020	01.01.2010	DIN regulation gear big
131030006	01.01.2010	Pulse magnet
131040007	01.01.2010	Decimal roller gear
131040006	01.01.2010	Gear movement roller
131000003	01.01.2010	M4 nut
131000002	01.01.2010	Security seal (lead) NATEK ENERJI
131000008	01.01.2010	Circular spring
131000100	01.01.2010	Internal measurement part
131060101	01.01.2010	Magnet drive bushing
131060005	01.01.2010	Oring - Ø 1 x 13
131060102	01.01.2010	Box magnet





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Annex A
Mesura Metering Srl

Activity MID:
M Mes 2023 2 TG048_B rev.0 parallel to TG017 Natek

Documentation no.	Date	Part Description
131060103	01.01.2010	Outer magnet
131060104	01.01.2010	Box for magnet
131060105	01.01.2010	Movement drive
131060106	01.01.2010	Inner magnet
131060107	01.01.2010	Box internal magnet
131060003	01.01.2010	Screw for index plate
131061002	01.01.2010	plugs for connections
131000001	01.01.2010	Plastic plug
131000007	01.01.2010	sikaflex
131030002/1	01.01.2010	Sealing meter type A
131030002/2	01.01.2010	Sealing meter type B
131030002/1T	01.01.2010	Index type A NATEK ENERJI
131030002/2TN	01.01.2010	Index type B NATEK ENERJI
131030002/3	01.01.2010	Security seal (figure) NATEK ENERJI
131030002/4	01.01.2010	Sealing – Type A and B
131050000	01.01.2010	Correction gears - DIN
131030003	01.01.2010	Plate NATEK ENERJI
S01	01.01.2010	Analysis phases
S02	01.01.2010	AG4 Valvola
S03	01.01.2010	Pulse generator circuit
134100000	25.02. 2019	Temperature compensation mechanism
134100001	25.02. 2019	tc center shaft
134100002	25.02. 2019	tc adjustment body
134100003	25.02. 2019	tc hinge link
134100004	25.02. 2019	tc hinge pin
134100005	25.02. 2019	tc bimetal coil
134100006	25.02. 2019	tc bimetal retainer
134100007	25.02. 2019	tc M4 screw





6. Production

6.1 In order to achieve high metrological quality of gas meters it is important to follow the production steps below:

- a) Inspection of incoming products
- b) An interim inspection of measuring instruments (production steps)
- c) Inspection of external leakage of meters
- d) Testing of ready meters and adjustment curve E% using the appropriate wheels for correction
- e) Inspection of final calibration

6.2 Test bench for final check of gas meters

- f) Check regularly the tightness
- g) In order not to influence the measurement, shock or vibration must be minimized
- h) The level of uncertainty of the test bench must be calculated with the expansion factor $k = 2$ according to the "ISO Guide to the expression of uncertainty in measurement"
- i) The gas meters should all be tested (testing performed on every meter)

6.3 Requirements for admission to the testing of gas meters

Requirements for admission to the testing are:

- j) tightness
- k) standard deviation of measurement
- l) pressure loss
- m) operation of pulse generator (if there is a pulse generator)

After checking for leaks it is necessary to go through the meter an air volume of at least 50 times the volume cycle of the meter. Then you check the deviation of measurement at least flow rates Q_{min} : 0,2 Q_{max} and Q_{max} .

The maximum permissible deviation of measurement can be seen in Directive 2014/32/UE (MID) (Annex IV- ex MI-002).

The maximum permissible pressure loss can be seen in standard EN1359:2017.

The pulse output can be controlled during or at the end of the test by comparing to the rise of index.



If all tests have got positive results gas meters can be marked "CE" and sealed with the appropriate constraint.

The seal can be:

- a) A manufacturer's mark foreseen in the quality system approved by a Notified Body.
or
- b) A mark of a Notified Body.

6.4 Specifications for operating

The specifications for installation and operating are listed in the "Instructions" of gas meter.

7. Revision History

Date	Revision	Description	Paragraphs reviewed	Signature of O.N. n° 2142 Director dott. Ing, Gilberto Serafini
22 nd June 2023	Rev. 0	First emission <i>NOTE: This EU-type certificate no. I-2142-MI002-TG048 Rev. 0 is the parallel certificate to EU-type certificate no. I-2142-MI002-TG017 Rev.5</i>	//	



A Cavagna Group Company

MESURA METERING S.R.L.

Sede legale: Frazione Ponte San Marco, 25011 Calcinato - Brescia (Italy) - Via Statale, 11/13
Tel. 0039 030 9663.111 - Fax 0039 030 9969014 - PEC: mesura.metering@pec.cavagnagroup.com
Codice Fiscale ed iscrizione al registro delle imprese di Brescia 03996920983

R.E.A. di Brescia N. 580259 - **P.IVA 03996920983**

Iscrizione al Registro Pile e Accumulatori IT19070P00005513

Sede operativa: Bedizzole, 25081 Brescia (Italy) - Via Gavardina, 10/H

info@cavagnagroup.com - **www.cavagnagroup.com**

La società è sottoposta all'attività di direzione e coordinamento da parte della **PARTECA S.p.A.** - Codice Fiscale 03008050175



Organizzazione con sistema di gestione certificato ISO 9001:2015



AG4TC/ AG2,5TC

INSTALLATION MANUAL AND USE GUIDE



Instruction manual for use

WARNING! IMPROPER USE OF THE SYSTEM AND/OR ITS COMPONENTS MAY CAUSE DAMAGE TO PERSONS OR PROPERTY.

FOR FURTHER INFORMATION CONTACT YOUR GAS DISTRIBUTOR



A Cavagna Group Company

MESURA METERING S.R.L.

Sede legale: Frazione Ponte San Marco, 25011 Calcinato - Brescia (Italy) - Via Statale, 11/13
Tel. 0039 030 9663.111 - Fax 0039 030 9969014 - PEC: mesura.metering@pec.cavagnagroup.com
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Iscrizione al Registro Pile e Accumulatori IT19070P00005513
Sede operativa: Bedizzole, 25081 Brescia (Italy) - Via Gavardina, 10/H
info@cavagnagroup.com - www.cavagnagroup.com

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Organizzazione con sistema di gestione certificato ISO 9001:2015



SAFETY

Read and keep

Please read this manual carefully before assembly and use. This measuring device may only be used by qualified operators in accordance with the technical conditions, regulations and safety standards. Any additional legal or safety regulations issued for special applications must be taken into account.

Spare parts

Any technical modification or tampering with the meter is prohibited.

Responsibility

We are not liable for damages caused by failure to follow the instructions in this manual and by improper use of the equipment. The information contained in this manual is not legally binding for the manufacturer. The manufacturer reserves the right to implement changes. Any changes made to the manual or the product may be made at any time without prior notification, for the purpose of improving the device or correcting any typographical or technical errors.

Storage

When not in use, store in a sheltered and dry place.



A Cavagna Group Company

MESURA METERING S.R.L.

Sede legale: Frazione Ponte San Marco, 25011 Calcinato - Brescia (Italy) - Via Statale, 11/13
Tel. 0039 030 9663.111 - Fax 0039 030 9969014 - PEC: mesura.metering@pec.cavagnagroup.com
Codice Fiscale ed iscrizione al registro delle imprese di Brescia 03996920983
R.E.A. di Brescia N. 580259 - **P.IVA 03996920983**
Iscrizione al Registro Pile e Accumulatori IT19070P00005513
Sede operativa: Bedizzole, 25081 Brescia (Italy) - Via Gavardina, 10/H
info@cavagnagroup.com - **www.cavagnagroup.com**
La società è sottoposta all'attività di direzione e coordinamento da parte della **PARTECA S.p.A.** - Codice Fiscale 03008050175



Organizzazione con sistema di gestione certificato ISO 9001:2015



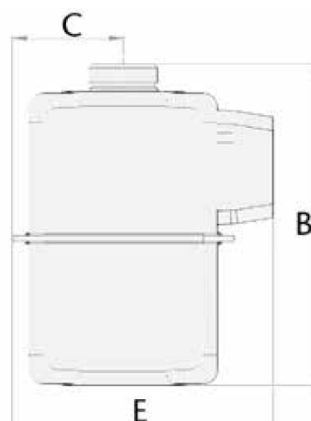
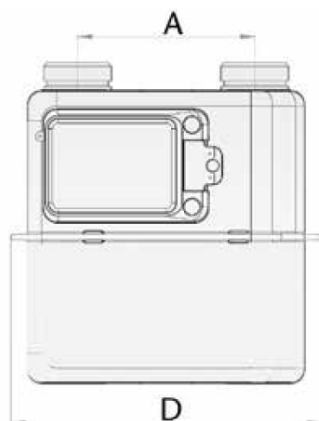
SUMMARY

PRODUCT DESCRIPTION	4
IDENTIFICATION MARKING	5
INSTALLATION.....	6
SAFETY.....	8
SEALS.....	8

PRODUCT DESCRIPTION

The AG4TC/AG2.5TC product is intended for measuring the volume of natural gas with temperature compensation at 15°C, at a maximum operating pressure of 0.5 bar, with a diaphragm measuring principle.

Model- Modello	AG2.5TC	AG4TC
Accuracy class- Classe di precisione	1.5	
Capacity- Capacità	0,025÷4 m³/h	0,4÷6 m³/h
Measuring Gas- Gas Misurabile	Natural Gas/ Gas Naturale	
Maximum pressure- Pressione Massima	0,5 bar	
Working Temperature- Temperatura di funzionamento	-25°C ÷ +55°C	
Gas Temperature- Temperatura Gas	-25°C ÷ +40°C	
Base Gas Temperature- Temperatura base Gas	15°C	
Specific Centre Temperature- Centro Specifico Temperatura	20°C	
Internal Pressure Loss- Perdita di Carico	≤ 1.5 mbar	
Humidity- Umidità	95%	
Color- Colore	Powder Coating, White Grey Verince a plover, bianca, grigia	
Body Material- Materiale Corpo	Pressed Steel- Lamiera d'acciaio	
Harmonised and Reference Standard- Norme e direttive di riferimento	EN1359-2017 MID (2004/22/CE)	

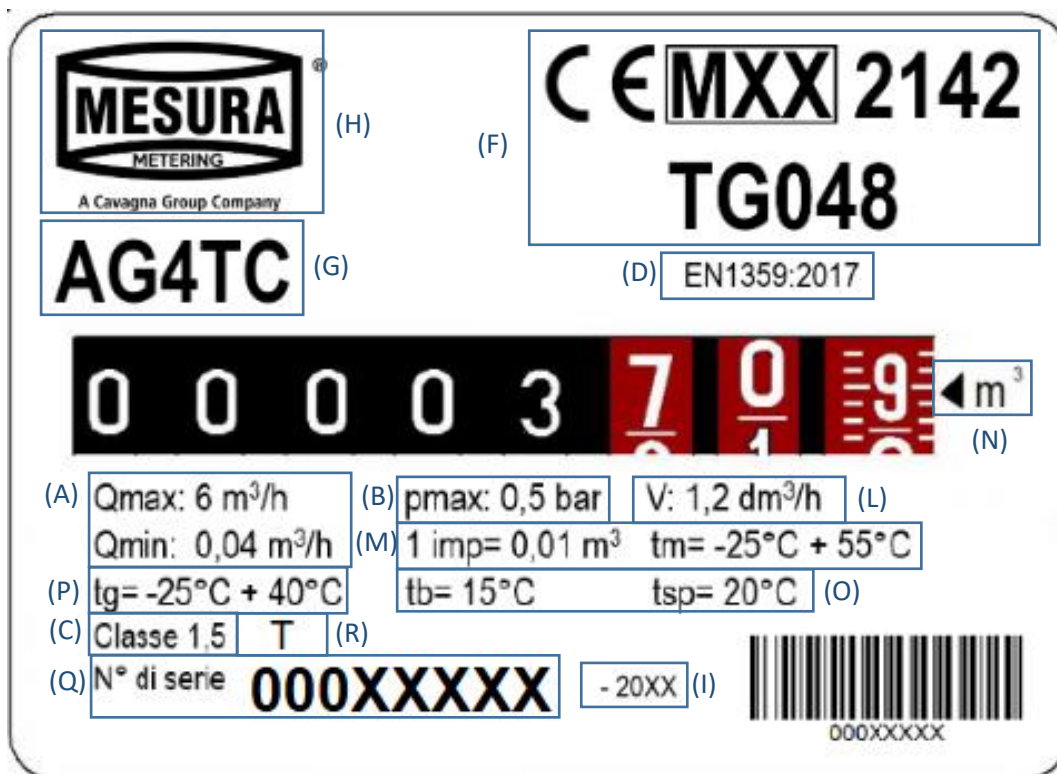


Model - Modello	Dimensions (mm) - Dimensioni (mm)					Connections - Connessioni	Weight (Kg) - Peso (Kg)
	A	B	C	D	E		
AG2.5TC	110	199,5	69	193	162	3/4"	1.7
						7/8"	
						1" 1/4	
AG4TC	110	199,5	69	193	162	3/4"	1.7
						7/8"	
						1" 1/4	

IDENTIFICATION MARKING

The device is easily identifiable by the marking on the front parts which shows the following data:

- Flow range: Qmin (minimum flow), Qmax (maximum flow) **(A)**
- Maximum operating pressure: Pmax **(B)**
- Accuracy class **(C)**
- Harmonized standards **(D)**
- "CE MXX 2142 TXXX" = additional metrological marking (MXX identifies the year of application of the additional marking, 2142 represents the identifier of the notified body that certifies the conformity of the production process, TXXX is the Type Approval Certificate Number) **(E)**
- Serial number and BAR code **(F)**
- Product name **(G)**
- Manufacturer logo **(H)**
- Year of production **(I)**
- Cyclic volume **(L)**
- Operating ambient temperature tm and pulse/m3 ratio **(M)**
- Totalizer measurement unit **(N)**
- specified centre temperature for meters with temperature conversion **(O)**
- Serial Number **(P)**
- Gas temperature **(Q)**
- T Marking **(R)**



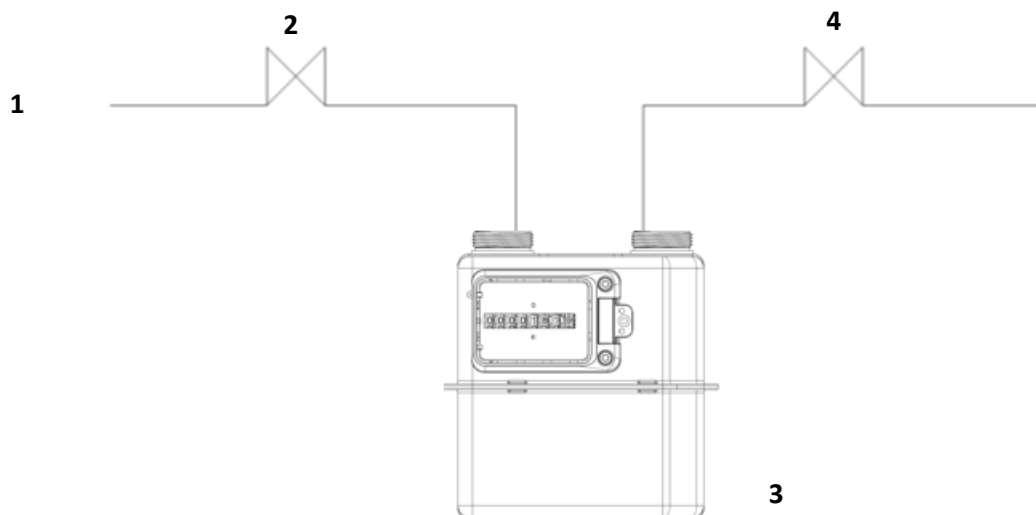
The diagram illustrates the identification marking on a device, with labels (A) through (R) pointing to specific data points:

- (H)** MESURA METERING logo
- (F)** CE MXX 2142 TG048
- (D)** EN1359:2017
- (G)** AG4TC
- (N)** 00003709 m³
- (A)** Qmax: 6 m³/h
- (B)** pmax: 0,5 bar
- (L)** V: 1,2 dm³/h
- (M)** Qmin: 0,04 m³/h
- (P)** tg= -25°C + 40°C
- (O)** 1 imp= 0,01 m³ tm= -25°C + 55°C
- (C)** Classe 1.5 T
- (Q)** tb= 15°C tsp= 20°C
- (R)** N° di serie 000XXXXX
- (I)** - 20XX

INSTALLATION

WARNING: For correct use and safe operation, pay close attention and follow the instructions below when installing the device:

- the PRODIGI device must be connected to the system. Before connecting, make sure that at least the section of the system upstream of the meter has been intercepted and therefore there is no gas supply during the installation phase;
- Before connecting, make sure that the maximum pressure of the system is lower than the maximum pressure foreseen by the meter which is fixed and equal to 0.5 relative bar;
- If necessary, use fittings to connect AG4TC/AG2.5TC to the duct (not supplied).
- AG4TC/ AG2.5TC operates only in vertical position;
- When tightening the fittings, do not exceed the torque of 110Nm;
- Verify that the customer's utilities are turned off.
- Slowly apply pressure to the system where the meter is installed and perform the leak test.
- If a pressure measuring pipe has been installed on the system, check the tightness of the relevant connection.
- After checking the tightness, slowly open the upstream and downstream valves (if present). The system is now ready for use.



- 1- Gas inlet
- 2- Upstream valve
- 3- Meter
- 4- Downstream valve (not always present on the system)



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MESURA METERING S.R.L.

Sede legale: Frazione Ponte San Marco, 25011 Calcinato - Brescia (Italy) - Via Statale, 11/13
Tel. 0039 030 9663.111 - Fax 0039 030 9969014 - PEC: mesura.metering@pec.cavagnagroup.com
Codice Fiscale ed iscrizione al registro delle imprese di Brescia 03996920983
R.E.A. di Brescia N. 580259 - **P.IVA 03996920983**
Iscrizione al Registro Pile e Accumulatori IT19070P00005513
Sede operativa: Bedizzole, 25081 Brescia (Italy) - Via Gavardina, 10/H
info@cavagnagroup.com - **www.cavagnagroup.com**
La società è sottoposta all'attività di direzione e coordinamento da parte della **PARTECA S.p.A.** - Codice Fiscale 03008050175



Organizzazione con sistema di gestione certificato ISO 9001:2015



COMMISSIONING

Installation and commissioning must be preceded by the tightness test of the fixed system (if this exists) and must be carried out as follows:

1. Remove the meter from its packaging box and check that the markings correspond to the system needs; remove the rubber caps located on the gas inlet/outlet connections.
2. Check the closing status of the shut-off valves located on the fixed system (if this exists) and of the taps of the user appliances.
3. Connect the meter to the duct, taking into account:
 - a. It must not be in contact with the walls
 - b. It must be raised from the floor
 - c. The indicating device must be in a horizontal position

PLANT START-UP

To start the system correctly, it is advisable to proceed with:

1. Make sure that the shut-off valves/taps located upstream and downstream of the meter are closed (if not present, make sure that all downstream users are closed).
2. Gradually open the shut-off valve located upstream of the meter
3. Check the tightness of the connections made with surfactant solutions or equivalent means (avoid the use of flames)
4. Gradually open the shut-off valve located downstream of the meter (if present).
5. Carry out a general check to ensure that there are no leaks from the systems.

DECOMMISSIONING

To properly decommission the system, it is advisable to proceed with:

1. Slowly close the valve upstream of the meter
2. Make sure that the downstream system is no longer pressurized
3. Slowly close the valve downstream of the meter (if not present, make sure that all downstream utilities are closed).
4. Remove the meter from the system (if necessary)

When dismantled, the meter may contain a residual quantity of gas. It is therefore necessary to adopt safety measures, for example: clean the meter with inert gas and transport it on vehicles with a ventilated loading area.

SAFETY

Spear part

Any modification or tampering with the meter is prohibited.

RESPONSABILITY

We are not liable for damages caused by failure to follow the instructions in this manual and by improper use of the equipment.

Installation

Accuracy class 1,5

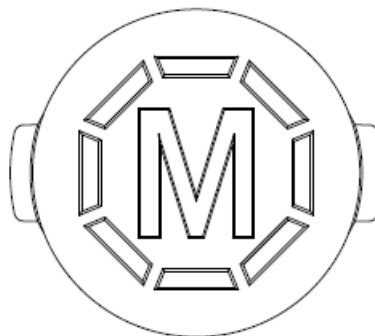
Operating temperature t_m -25°C...+55°C

Pmax 0,5 bar

SEALS

Do not damage or remove any type of sticker and/or metric verification seals. This would require the meter to be re-verified.

The design of the seal is shown in the figure:





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Organizzazione con sistema di gestione certificato ISO 9001:2015

Warranty Terms and Conditions

1. FOREWORD

Mesura Metering S.r.l. guarantees that all products covered by the warranty conform to the reference specifications under normal use and service.

All products manufactured by Mesura Metering S.r.l. are made using selected high quality and technologically advanced materials.

Every single component used to manufacture the meters undergoes stringent acceptance checks upon arrival at the company.

Mesura Metering S.r.l. guarantees high standards of workmanship and a high degree of precision in the assembly and inspection processes of the gauges right through to the finished product.

All meters are calibrated and undergo final testing prior to product release.

2. WARRANTY PERIOD

The present warranty is provided by Mesura Metering S.r.l. ("M.M.") in favour of its direct customer ("Buyer") limited only to defects in materials or workmanship: this will entail the repair or replacement of the product or the defective parts, without the possibility of issuing a credit note or price reduction.

Each product purchased directly from M.M. shall be guaranteed to be free from defects in material and workmanship for a period of 12 (twelve) months from the date of installation or 24 (twenty four) months from the date of shipment.

3. EXCLUSIONS

This guarantee shall not apply, and M.M. shall have no liability in respect of damages or expenses incurred for defects, malfunctions or lack of performance, caused by or arising from:

- storage conditions by the Buyer that are outside the temperature and humidity parameters specified by EN14236 and Directive 2014/32/EU (MID)
- use of the product for destinations, applications, capacities that have not been expressly indicated by M.M;
- damage to the product resulting from faulty installation, maintenance and/or improper use of the product;
- damage resulting from modifications or repair of the product by third parties not authorized by M.M;
- failure on the part of the Buyer to inform his final customer ("Customer") of the specifications, use and necessary warnings (included in the instruction manuals), as well as instructions for the proper use of the product;
- tampering or unauthorized intervention that impairs the proper functioning of the product (e.g. tampering with the metrological seal(s), etc.);
- cosmetic defects such as, for example, scratches, dents, discoloration or loss of color due to handling or installation in a place not suitable for the measuring device;
- use by the Buyer of spare parts other than those supplied by M.M., such as, but not limited to: non-original replaceable battery;
- exposure of the product to corrosive or abrasive fluids or substances or other misuse, neglect or accident;
- Use of gases with a high impurity content or unsuitable for use that impair the meter's functionality;
- Product lacking traceability due to total or partial deletion of the serial identification number;
- Failure to replace the replaceable battery in cases of abnormal operation of the device or incorrect replacement of the replaceable battery.
- Changes of the configuration with respect to the factory-set configuration, with the exception of the configuration parameters, for the purposes of interchangeability and interoperability with other data management platforms
- Installation in the absence of a field or in closed enclosures with transmission signal shielding (Ref. standard UNI 9036:2015).
- Wear or deterioration of those parts, which, by their very nature, are subject to rapid and continuous wear or tear (e.g.: gaskets, coating material, etc.).

4. OPERATING PROCEDURES FOR ACCESSING THE WARRANTY

4.1. In order to obtain the application of this guarantee, the Buyer must report any defects or lack of conformity of the products, in accordance with the following methods and timeframes (it being understood that failure to report a defect or delay in doing so shall render the guarantee null and void)

a) Sending a complaint by registered letter (or certified mail PEC) addressed to M.M. within eight (8) working days from the date on which it became aware or should have become aware of the alleged defect and, in any event, within the applicable warranty period.

b) The complaint shall include:

- clear description of the defect, with supporting pictures;
- explanation of the circumstances under which the defect occurred;

- serial number of the meter(s)
- date and reference number of the purchase invoice, as well as the number of the delivery documentation (DDT).

For all claims found to be justified, M.M. shall, within a reasonable period of time, either:

(a) repair the product or its component part; or (b) provide the Buyer with an equivalent replacement product or spare part of the same type, kind and/or quality as the one found to be defective.

4.2. Each repair will be performed directly by M.M. or an authorized third party. The Buyer is responsible for all expenses arising out of and/or related to the placement of the product and for the removal, disassembly, re-installation and transport of the product(s) and/or the defective part(s)(a) to/r by Customer. Acceptance of a warranty claim does not constitute an admission that the product or any of its components is defective. M.M. will not accept any warranty claims made by third parties to whom the Buyer has sold or installed the product.

5. LIMITATIONS OF LIABILITY

5.1. Except as expressly provided for in this guarantee, M.M. shall not be liable for any direct, indirect, consequential, or any other damages (including lost profits) arising out of the use or non-use of the Product. This guarantee replaces the legal guarantees for defects and conformity and excludes any other possible liability of M.M. originated from the products supplied.

5.2. With regard to the characteristics and specifications of the Product, M.M. complies with the provisions of the legislation and technical regulations in force in Italy, as well as with the European Directives, unless otherwise indicated by M.M.

M.M. does not guarantee any conformity of the products with respect to the legislation and regulations (including, but not limited to, safety legislation) in force in the Buyer's country which is based in a country that is not part of the European Union. The Buyer assumes the risk of possible discrepancies between Italian law and European Directives and the laws of the country of destination of the Product as regards its use or installation, indemnifying M.M. from any detrimental consequence that may derive from this.

6. SALE OF PRODUCTS

- The guarantee request can be submitted to M.M. exclusively by the Buyer.
- In any case, the validity of this guarantee is subject to compliance with all contractual obligations by the Buyer according to the provisions of the purchase contract and, in particular, the obligations relating to payment, in the absence of which this guarantee will not be effective.

7. METHOD OF RETURN UNDER WARRANTY

7.1. Each item must be returned if not installed, in the original intact packaging or even if already installed, in another type of appropriate and unambiguous packaging that guarantees adequate protection of the product and accompanied by any accessories present at the time of sale. The shipping address to refer to for the return is:

MESURA METERING S.R.L. – VIA GAVARDINA 10H – 25081 BEDIZZOLE (BS)

The warranty covers only the cost of the device. Incoming/outgoing transportation costs and labor costs for on-site replacement/service are excluded. If the device is replaced, the remaining warranty period will be transferred to the replacement product. Warranty returns must first be authorized by M.M. via pre-filled RMA form

7.2. Returns under warranty must be shipped by the Buyer upon authorization of M.M.. If the returned goods under warranty are found to be functional as a result of the technical analysis, replacement will not be recognized and the cost of analysis of the returned goods will also be charged.

7.3. The material returned with the RMA form will be analyzed and the relative analysis report will be issued by the Technical Department of M.M. in the estimated time of 15 working days. If after the analysis performed the reasons for the return are proven and there are no elements of guarantee exclusion (as in point 3), M.M. will proceed to replace the returned item with a new one, with the sole exception of out-of-warranty goods or for the resulting material that is functional upon inspection.

M.M., in agreement with the Buyer, will be able, where possible, to repair/recondition the returned product by carrying out a 100% functional final test.

Note: the goods must be sent to M.M. within a maximum of 60 days from the authorization to the shipment by issuing the RMA #.

8. APPLICABLE LAW AND DISPUTES

8.1 Any and all claims or disputes of whatever nature arising out of or otherwise relating to this warranty shall be governed by and construed in accordance with the laws of Italy.

8.2 The parties expressly acknowledge and irrevocably agree that the sole and exclusive venue for and jurisdiction over any such claim or dispute shall be the Courts having jurisdiction over the area where the Warrantor is located.



MESURA METERING SRL
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25011 CALGINATO (BS)
C.F. e P. IVA: 03996920983

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