



EC-Type Examination Certificate

Measuring Instrument Directive

Certificate number: DK-0200-MI002-011

Issued by FORCE Certification, Denmark
EC-notified body number 0200

In accordance with The Danish Safety Technology Authority's statutory order no. 436 of 16th May 2006 which implements the Directive 2004/22/EC of the European Parliament and Council of March 31st, 2004 on measuring instruments (MID).

Issued to: **Apator Metrix S.A.**
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Poland

Reference No.: 80.976-019/07
Type of instrument: Diaphragm Gas Meter
Type designation: AM-G10, AM-G16
Valid until: September 23, 2018
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Approved by


Hans Falster
Director

Processed by


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Certification Manager

The conformity markings may only be affixed to the above type approved equipment. The manufacturer's Declaration of Conformity may only be issued and the notified body identification number may only be affixed on the instrument when the production/product assessment module (D or F) of the Directive is fully complied with and controlled by a written inspection agreement with a notified body.

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Appendix to EC-Type Examination Certificate Measuring Instrument Directive

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Applied standards and documents:

EN 1359:1998/A1:2006. Pressure absorption with integrated valve exceeds the initial permissible values in table 3.

The instrument shall correspond to the following specifications:

Type designation

AM-G10, AM-G16

Description

AM-G10, AM-G16 is a diaphragm gas meter with mechanical index. The mechanical measuring unit is mounted in steel plate housing with either two-pipe or co-axial connections. The measuring unit's movements are transmitted via a shaft through a bushing to the index. The index registers the measured volume at the actual conditions.

The measuring unit includes a mechanical blockage which prevents registering of more than 50 cyclic volumes in case of reverse flow through the meter.

The meter is available with the following options:

Pulse transmitter

Integrated valve





Technical documentation

FORCE Certification File no. 80.976-019/07

Technical data

Instrument type:	Diaphragm gas meter		
Accuracy class:	1,5		
Environment class:	M1		
Climatic class:	G10	G16	
	-25 °C to +55 °C	-10 °C to +55 °C	
	Condensing closed outdoor location.		
Volume indication:	m ³ at actual conditions		
Flow rates:	G10	G16	
Maximum flow rate:	Q _{max}	16	25 m ³ /h
Minimum flow rate:	Q _{min}	0,1	0,16 m ³ /h
Transitional flow rate:	Q _t	1,6	2,5 m ³ /h
Overload flow rate:	Q _r	19,2	30 m ³ /h
Cyclic volume	V _c	5	5 dm ³
Gas family:	Fuel gasses of 1 st , 2 nd and 3 rd family (EN 437:2003)		
Maximum pressure:	p _{max}	0,5 barg / 0,1 barg (Option high ambient temperature resistant)	
Gas temperature range:	G10	G16	
	t _m	-25 °C to +55 °C	-10 °C to +55 °C
Volume:	V _b	0 – 999999,99 m ³	
Pulse values:	0,1 m ³ /imp		

The meter is supplied with different connections:

Two-pipe, with centre distance 152,4 to 300 mm, threads from 5/4" to 2"

Mono-pipe (coaxial) 2 3/4"

Verification

Errors

Maximum permissible errors (MPE) according to Directive 2004/22/EC of the European Parliament and Council of March 31st, 2004 on measuring instruments (MID), Annex MI-002.

Maximum permissible errors

$$\begin{aligned} \pm 3 \% \text{ for } & Q_{\min} \leq Q < Q_t \\ \pm 1,5 \% \text{ for } & Q_t \leq Q < Q_{\max} \end{aligned}$$

When the errors between Q_t and Q_{\max} all have the same sign, they shall all not exceed 1 %.

Procedure

Verification is carried out at laboratory conditions. It is permitted to use air as verification gas.

The verification is valid only for the display reading.

Sealing

Security sealing

Security seal consist of either a metal seal stamped as shown or an internal plastic seal which locks when the index counter is put in place and breaks when the index counter is removed.

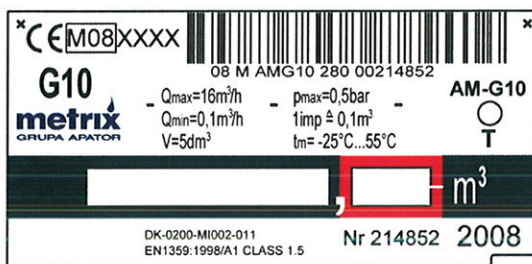


Security seal
Metal



Verification mark

Labelling and inscriptions



Conformity marking (CE + M + Year of affixing + NB no.)

EC-type examination certificate number

Manufacturer designation or logo

Type, production year and serial number

Applied European Standard : EN 1359:1998/A1:2006

Class : 1,5

G10 G16

Maximum flow rate: Q_{max} : 16 25 m³/h

Minimum flow rate: Q_{min} : 0,1 0,16 m³/h

Ambient and gas temperature: t_m : -25 °C ... +55 °C -10 °C ... +55 °C

Maximum working pressure: p_{max} : 0,5 barg / 0,1 barg (Option high ambient temperature resistant)

Volume: V : m³

Cyclic volume: V_c : 5 dm³

High ambient temperature resistant : T

Pulse values (optional) : 1 imp ± 0,1 m³



Accompanying information

Rated operating conditions not included on the label:

- Transition flow rate, Q_t : G10, $Q_t = 1,6 \text{ m}^3/\text{h}$. G16, $Q_t = 2,5 \text{ m}^3/\text{h}$.
- Overload flow rate, Q_r : G10, $Q_r = 19,2 \text{ m}^3/\text{h}$. G16, $Q_r = 30 \text{ m}^3/\text{h}$.
- Climatic class: condensing, closed outdoor location
- Mechanical environment classes: M1
- Gas family: Fuel gasses of 1st, 2nd and 3rd family (EN 437:2003)

Instructions for installation, maintenance, repairs, permissible adjustments

Instructions for correct operation and any special conditions of use