OIML Certificate

OIML Member State
The Netherlands

Number R 139/2014-B-NL1-18.01
Project number 1901919

Issuing authority Person responsible:	NMi Certin B.V. C. Oosterman
Applicant and Manufacturer	Cetil Dispensing Technology, S.L. C/Pelaya 37 Polígono Industrial Río de Janeiro 28110 Algete (Madrid) Spain
Identification of the certified type	A **CNG Dispenser** as either a single stage system or as a multi-stage system Type: E30 CNG "x" "xx" [1]
Characteristics	See page 2 and further

The OIML Certificate is issued under scheme B.

This Certificate attests the conformity of the above identified type (represented by the sample(s) identified in the OIML Type Evaluation Report) with the requirements of the following Recommendation of the International Organization of Legal Metrology (OIML):

R 139-1 (2014) "Compressed gaseous fuel measuring systems for vehicles"

Accuracy class 1,5

This Certificate relates only to the metrological and technical characteristics of the type of measuring instrument covered by the relevant OIML International Recommendation identified above.
This Certificate does not bestow any form of legal international approval.

Important note: Apart from the mention of the Certificate's reference number and the name of the OIML Member State in which the Certificate was issued, partial quotation of the Certificate and of the associated OIML Type Evaluation Report(s) is not permitted, although either may be reproduced in full.

[1] The extension "x" "xx", are the "frame models", where "x" "xx" is a non-essential indication.

Issuing Authority **NMi Certin B.V., OIML Issuing Authority NL1**
27 September 2018

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Head Certification Board

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The conformity was established by the results of tests and examinations provided in the associated report(s):
Measurement transducer, make Emerson Process Management Flow B.V, type CNG050:

- No. C-BI-02-WV-0428 dated 28 May 2002 that includes 20 pages;
- No. CPC/9200574-2 dated 7 January 2010 that includes 12 pages;
- No. CVN/201269 dated 10 July 2002 that includes 80 pages;
- No. NMi-1900487-01 dated 17 July 2017 that includes 24 pages.

Measurement transducer, make Endress + Hauser, type CNGmass:

- No. CPC-607296-1a dated 24 July 2006 that includes 22 pages;
- No. NMi-16200831-02 dated 19 July 2017 that includes 17 pages.

Electronic calculating/indicating device, make CETIL Medicion y Transporte, type EAS2:

- No. NMi-13200749-1 dated 1 May 2014 that includes 77 pages;
- No. NMi-13200749-2 dated 1 January 2014 that includes 15 pages;
- No. NMi-15200617-01 dated 14 April 2016 that includes 85 pages;
- No. NMi-15200617-02 dated 14 April 2015 that includes 20 pages;
- No. NMi-15200617-04 dated 14 April 2016 that includes 34 pages;
- No. NMi-15200617-04 dated 14 April 2016 that includes 34 pages.

Characteristics of the measuring instrument
In Table 1, the general characteristics of the measuring instrument are presented.
The construction of the measuring instrument is recorded in the Documentation folder no. T8952-1.

Table 1 General characteristics

Minimum – maximum flow rate	Within the flow ranges of the applicable measurement transducer, see table 2 or 3.	
Minimum measured quantity	2 kg (fuelling cars); 5 kg (fuelling buses/trucks).	
Maximum storage pressure	200 – 300 bar(g)[2]	
Maximum operating pressure	200 – 250 bar(g)[2]	
Environmental classes	See fixed instruments or devices installed outdoors.[3]	
Ambient temperature range	-40 – +55 °C; non condensing humidity	
Product temperature range	CNG050	-25 – +55 °C
	CNGMass	-50 – +125 °C
Intended for the measurement of	Compressed Natural Gas	

Each measuring instrument consists at least of:

- One measurement transducer (meter);

[2] Depends on the national regulation in the country of use.
[3] To be decided by the national legislation, as they depend on the climatic conditions.

- One calculating/indicating device (calculator).

The characteristics of the mentioned parts of the dispenser are presented at table 1 and higher.

The same housing of the dispenser can comprise of one or more measuring systems. When more than one measuring systems are in one housing, one calculating/indicating device may be a common part of the measuring systems.
The CNG dispenser can be used with or without sequential control.

- The CNG dispenser can be built as a single stage system or as a multi stage (2 or 3) system.
  - Single stage systems have one supply of gas;
  - Multi stage systems are connected to 2 or 3 gas supplies, which differ in pressure. Depending on the programmed low flow rate conditions, the instrument switches to the next higher pressure stage or ends the delivery.
- The CNG is delivered from a high-pressure storage tank or from a high-pressure compressor. The gas is measured by the measurement transducer; the measured quantity from the meter together with the price to pay are displayed and registered by the electronic counter/calculator.

Parts of the measuring system
The conformity of the following parts was established by the results of tests and examinations provided in the associated report(s):

Part:	Measurement transducer
Producer:	Emerson Process Management Flow B.V
Type:	CNG050
Documentation folder:	TC11012-1

Table 2 General characteristics of the measurement transducer type CNG050

Minimum – maximum flow rate	1,3 – 77 kg/min;
Minimum measured quantity	1 kg
Maximum pressure	317 or 345 bar(g) (depending on flange type)
Environmental classes	M2 / E2
Ambient temperature range	-40 – +55 °C
Product temperature range	-25 – +55 °C
Intended for the measurement of	Compressed Natural Gas
Power supply voltage	24 V DC ±20 % (with MVD Direct Connect I.S) 15 – 26 V DC
Software identification	Version number: 3.52 Checksum: 3C4A

Installation conditions:
Installation of the meter with the MVD Direct Connect barrier is preferred to protect against EMI.

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Part: Measurement transducer
Producer: Endress + Hauser
Type: CNGMass
Documentation folder: TC10997-1

Table 3 General characteristics of the measurement transducers type CNGMass

Minimum – maximum flow rate	See table below
Minimum measured quantity	See table below
Maximum pressure	350 bar(g)
Environmental classes	M2 / E2
Ambient temperature range	-40 – +55 °C; non condensing humidity
Product temperature range	-50 – +125 °C
Intended for the measurement of	Compressed Natural Gas
Power supply voltage	26 V AC; 50/60 Hz 24 V DC
Software identification	Version number: 01.01.00 Checksum: 0X13BD2D46

Table 4 General characteristics of the family of instruments

Meter size	DN08	DN15
Minimum flow rate [kg/min]	0,3	0,8
Maximum flow rate [kg/min]	30	80
MMQ [kg]	1	1
Maximum pressure [bar(g)]	250	250
Diameter in/outlet [mm]	8	15

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Part: Calculating/indicating device
Producer: Cetil Dispensing Technology, S.L.
Type: EAS2
Documentation folder: TC8491-2

Table 5 General characteristics of the calculating and indicating device type EAS2

Environmental classes	M3 / E2
Ambient temperature range	-40 – +55 °C
Software identification	See table 6

Table 6 Software versions of the calculating and indicating type EAS2

Device	Identification	Checksum
MCON	01-02 11-04-14	F06F405F
	01-04 31-10-14	CA8DD289
	01-05 17-02-15	CC84A0AD
	01-10 26-02-16	0xD8AB9A77
	01-11 15-07-16	667D7E1B
	01-13 23-09-16	702278F2
	01-14 24-11-16	1ADD7BB2
	01-15 18-04-17	5B43F929
	01-16 07-07-17	DB202DD2
	01-17 24-04-18	A99774BF
MMED	01-02 11-04-14	0947E0DE
	01-04 31-10-14	1836FB4F
	01-05 17-02-15	3CE9B953
	01-10 26-02-16	0x7BF0F604
	01-11 15-07-16	37A61307
	01-13 23-09-16	9B79E9AF
	01-14 24-11-16	B9A1C6C5
	01-15 18-04-17	E85F99A0
	01-16 07-07-17	85411193
	01-17 24-04-18	040F4BF9
MVIS	01-02 11-04-14	3F2A5C82
	01-04 31-10-14	DF83CF5B
	01-05 17-02-15	2070CEE3
	01-10 26-02-16	0x9850F12E
	01-11 15-07-16	AB4A41A7
	01-13 23-09-16	999A6FE0
	01-14 24-11-16	B2FDD15C
	01-15 18-04-17	1959E9A8
	01-16 07-07-17	FB8BC300
	01-17 24-04-18	D1D3FF71

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Device	Identification	Checksum
MEES	01-10 26-02-16	0xEEB805DE
	01-11 15-07-16	5CF96D68
	01-13 23-09-16	35B5A20C
	01-14 24-11-16	4CBF0297
	01-15 18-04-17	83932367
	01-16 07-07-17	18898D87
	01-17 24-04-18	32743806
M420	01-10 00-02-16	0x5FE0FEF9
	01-11 00-07-16	32F11CE4
	01-13 00-09-16	44043F49
	01-14 00-11-16	C32C150E
	01-15 18-04-17	15F7104A
	01-16 07-07-17	9D6365A5
	01-17 00-04-18	AAA11519