OIML Certificate

OIML Member State
The Netherlands

Number R117/2019-A-NL1-24.03 revision 0
Project number 2502536

Issuing authority Person responsible:	NMi Certin B.V. M.Ph.D. Schmidt
Applicant and Manufacturer	CZAR Metric System Private Limited Plot No. A-451 MIDC Industrial Area, Mahape Navi Mumbai 400710 Maharashtra, India
Identification of the certified type	An **LNG dispenser** for liquified Natural gas Type: CZN-******[1]
Characteristics	See page 2 and further

This OIML Certificate is issued under scheme A.

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

R 117:2019 "Dynamic measuring systems for liquids other than water"

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.

This certificate and supporting reports comply with the requirements of OIML-CS-PD-07 clause 6.2.

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 Reports is not permitted, although either may be reproduced in full.

[1] Where "*" can be a number or a letter for representing different configurations of the dispenser.

Issuing Authority **NMi Certin B.V., OIML Issuing Authority NL1**
04 March 2024

Certification Board

NMi Certin B.V.
Thijsseweg 11
2629 JA Delft
The Netherlands
T +31 88 636 2332
certin@nmi.nl
www.nmi.nl

OIML Certificate

The conformity was established by the results of tests and examinations provided in the associated reports:
For

- No. NMi-2502536-05 dated 04 March 2024 that includes 69 pages.

LNG Dispenser CZN-**** series**

Characteristics of the LNG dispenser
In Table 1 the general characteristics of the LNG dispenser are presented.
The construction of the LNG dispenser is recorded in the Documentation folder no. LF2502536-1.

Table 1 General characteristics of LNG dispenser

Manufacturer's trademark	CZAR Metric System Private Limited
Type designation	CZN-******
Accuracy class	1,5
Instrument Type	LNG dispenser
Approved quantity	Mass
Essential parts of the dispenser	Electronic calculating and indicating device - Make CZAR Metric System Private Limited type CZ series Measurement sensor - Make Endress + Hauser Flowtec AG type Promass F or Promass Q Measurement transmitter - Make Endress + Hauser Flowtec AG type Promass 300 or Promass500
Approved for liquid products	Liquified Natural Gas (LNG)
MMQ	5 kg
Maximum number of nozzles	2
Maximum number of main indicating device	2
Maximum number of nozzles connected to each indicating device	1
Environment classes	E1 / H3 / M2
Flow characteristics	See OIML certificate of the essential part - measurement sensor mentioned in table 2
Ambient temperature range	- 25 °C … + 55 °C

Liquid temperature range	See OIML certificate of the essential part - measurement sensor mentioned in table 2
Maximum pressure	See OIML certificate of the essential part - measurement sensor in table 2
Electrical power of Dispenser	230 VAC / 50 Hz
Identification of software	See OIML certificate of the applicable essential parts mentioned in table 2
Measurement sensor in the vapour return line	Not applicable

Each CZN-****** dispenser consists at least of:

- One measurement sensor (Coriolis meter (Promass F or Promass Q))
- One measurement transmitter (Promass 300 or Promass500)
- One electronic calculating/indicating device (CZ series calculator).
- Optionally, a printer may be connected to the dispenser as follows:
    - Printer mounted on the dispenser door, powered and communication through the dispenser;
    - Printer mounted on the side of the dispenser, powered and communication through the dispenser;
    - Remote printer connected via the POS communication cable.

The calculating/indicating device can have a maximum of 2 main displays, allowing it to configure and control 2 nozzles (meters), out of which 2 nozzles (meters) can be simultaneously operated. A maximum of one nozzle (meter) can be connected to each calculating/indicating device's main display.

Approved input – Mass meter communication cable via RS-485.
Approved output – POS communication cable via RS-485.
All communication cables (POS and Pulser) should be shielded cables.

Table 2 Overview of Essential parts of the measuring instrument

Part	Producer	Type	OIML certificate	Remarks
Electronic calculating and indicating device	CZAR Metric System Private Limited	CZ series	R117-2019-A-NL1-23.04	-
Measurement sensor	Endress + Hauser Flowtec AG	Promass F or Promass Q	R117/2019-A-NL1-22.10	-
Measurement transmitter	Endress + Hauser Flowtec AG	Promass 300 or Promass500	R117/2019-A-NL1-22.10	-

OIML Certificate

OIML Member State
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Number R117/2019-A-NL1-24.03 revision 0
Project number 2502536

The conformity of the following parts was established by the results of tests and examinations provided in the associated reports:

Part:	Calculating/indicating device
Producer:	CZAR Metric System Private Limited
Type:	CZ Series
Documentation folder:	DF2502536-2
Reports:	No. NMi-2502536-01 dated 27 October 2021 that includes 119 pages; No. NMi-2502536-03 dated 4 May 2023 that includes 34 pages.

Table 3 General characteristics of the calculating/indicating device type CZ series

Maximum volume indication	6 digits (4 integers and 2 decimals)
Maximum unit price	5 digits (3 integers and 2 decimals)
Maximum price to pay	7 digits (5 integers and 2 decimals)
Environmental classes	E1 / M2 / H3 (condensing humidity)
Ambient temperature range	-25 °C / +55 °C
Power supply	230 VAC 50 Hz
Maximum number of nozzles	4
Maximum number of main indicating device	4
Maximum number of nozzles connected to each indicating device	1
Approved input	Mass meter communication cable via RS-485 (shielded)
Approved output	POS communication cable via RS-485 (shielded)
Mass Meter communication	RS-485 communication protocol

Table 4 Software identification of the calculating/indicating device type CZ series

Board	Firmware version	Hash code
CPU Board	LNG CZ-CPU_V2.2	ad345a06221995f83b3faf6289c16a9996cea 16ee7f5e05816943a17daf23473
Main Display cum CPU Board	LNG CZ-DIS_V2.2	23c41eaa883465355ab629e56facc82cec186d 7f6ae10ebbd8aada746cb52d99

Software version verification of the calculating/indicating device type CZ series
The software versions and checksums can be displayed on the LCD display by following the below procedure:

On the alphanumeric keypad on the dispenser press **SETUP → P2 →** enter unique password by a user with sufficient rights **→ ENTER** this puts the dispenser in maintenance mode.
Then press **5→ 1→ 1→ 1** for CPU board;
or **5→ 1→ 1→ 2** for Main Display board.

Table 5 Legally relevant parameter list of the calculating/indicating device type CZ series

Process code	Process code name	Value / range
122	Unit Rate	5 digits (XXX.XX)
212	Product Grade	3 Characters (XXX)
243	No flow No Fuel	30 (sec)
51	Log	Transaction, Calibration Change, Unit Rate Change, Density Change, Error
311	View Last Cal	View K Factor
214	Date & Time	dd:mm:yy , hh:mm:ss
511	PCBA Soft Detail	View board details
52	Model Info	View model details
521	Serial Number	View serial number of Dispenser

Production location

The LNG dispenser is produced at one of the following production locations:

- CZAR Metric System Private Limited, Plot No. A-451, Central Road, MIDC Industrial Area, Mahape Pin code 400710, Maharashtra India.
- CZAR Metric System Private Limited, Plot No.C-541, MIDC Industrial Area, Pawne, Navi Mumbai 400705, Maharashtra, India.

Certificate history:
This revision replaces the previous version.

Revision	Date	Description of the modification
Initial	04 March 2024	-