

OIML Member State

The Netherlands

Number R117/2019-A-NL1-23.04 revision 0

Project number 2502536

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Issuing authority
Person responsible: NMi Certin B.V.
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Applicant and
Manufacturer CZAR Metric System Private Limited
Plot No. A-451 MIDC Industrial Area, Mahape
Navi Mumbai 400710
Maharashtra, India

Identification of the A **electronic calculating and indicating device** used as a part of Fuel, AdBlue, LPG and LNG dispensers.

certified type Type: CZ series

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 0,5 / 1,0 / 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.

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Issuing Authority **NMi Certin B.V., OIML Issuing Authority NL1**
4 May 2023

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The conformity was established by the results of tests and examinations provided in the associated 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.

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. DF2502536-2.

The CZ series is an electronic calculating and indicating device which is used as part of fuel, AdBlue, LPG and LNG dispensers.

The CZ series can have a maximum of 4 main displays and a maximum of 8 delivery nozzles connected to it.

A maximum of four nozzles can be connected to each calculating/indicating device's main display, only one nozzle out of the four connected to a single display can be simultaneously operated.

The meter pulse cable is a shielded cable with RS-485 communication protocol.

The approved power supply for the calculator is 230 VAC 50 Hz.

The Point of Sales (POS) can be connected to the device via a shielded POS cable. The approved communication protocol for the POS cable is RS-485.

Approved PCB drawings and parts list of the electronic calculating and indicating device can be found in documentation folder no. DF2502536-2.

Optionally, a printer can 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.

Table 1 General characteristics of the electronic 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
Approved input	Pulser communication cable via RS-485 (shielded)
Approved output	POS communication cable via RS-485 (shielded)
Pulser	Magnetic encoder CZ-MGE-XX RS-485 communication protocol Output signal 256 pulse/revolution

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Maximum number of nozzles	8
Maximum number of main indicating device	4
Maximum number of nozzles connected to each indicating device	4

Table 2 Software identification of the electronic calculating and indicating device type CZ series

Used in Dispenser type	Board	Firmware version	Hash code
Fuel and LPG dispenser	CPU Board	CZ-CPU_V1.1	10f85e8d0d3add237df9c1066014cc550fcfb53174ae3e446ab6c116ab504a9f
		CZ-CPU_V2.0	414f8d096a229fb0d4823f91a9b4761e369a8e468389755b4d3544f2c0b0d08b
	Main Display cum CPU Board	CZ-DIS_V1.1	1f2eda31bcef24f9427819d38460d1c47b0f4310f1227aae18c823b4d8634f3
		CZ-DIS_V2.0	d7a87432a2748161363ecdc809d8c6c481953ff54f80bef77df88902c5bca8a
	Pulser Board	CZ-MGE_V1.1	48680bb9633709cc27e18822df23f5b762831e83d946893fab5382aec716363c
	Keypad Display Board	CZ-DKP_V1.1	8d0ea94278cafd43a4d949c8b1431c02d89665af02090496e4a3b7760181034a

Used in dispenser type	Board	Firmware version	Hash code
LNG dispenser	CPU Board	LNG CZ-CPU_V2.2	ad345a06221995f83b3faf6289c16a9996cea16ee7f5e05816943a17daf23473
	Main Display cum CPU Board	LNG CZ-DIS_V2.2	23c41eaa883465355ab629e56facc82cec186d7f6ae10ebbd8aada746cb52d99

Software version verification of the electronic calculating and 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
- or **5** → **1** → **1** → **3** for Pulser board
- or **5** → **1** → **1** → **4** for Keypad Display board

Table 3 Legally relevant parameter list of the electronic calculating and 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)
24521	Pre-Mask Value	60 (mL)
2412	Decimal Setting	0~3 (digits)
24511	High Flow Cutoff	250 (mL)
243	No Pulse 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 electronic calculating and indicating device 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
0	4 May 2023	Initial issue