OIML Certificate

OIML Member State
The Netherlands

Number R117/2019-A-NL1-25.09 revision 0
Project number 4051588

Issuing authority	NMi Certin B.V. Person responsible: M.Ph.D. Schmidt
Applicant and Manufacturer	Petrotec Parque Industrial de Guimarães Pav. C2, S. João de Ponte 4805-661 Guimarães Portugal
Identification of the certified type	A **fuel dispenser** Manufacturers mark: Petrotec Type: Axon Model types Axxxxx xx
Characteristics	See following page(s)

This OIML Certificate is issued under scheme A.

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 117-1: 2019 "Dynamic measuring systems for liquids other than water"

Accuracy class 0,5

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.

Issuing Authority **NMi Certin B.V., OIML Issuing Authority NL1**
22 December 2025

Certification Board

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The conformity was established by the results of tests and examinations provided in the associated report(s):

- NMi-4051588-01 dated 22 December 2025 that includes 57 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. T10237-8.

Each measuring instrument consists at least of:
- One combined pump and gas eliminator device (gas separator);
- One measurement transducer (meter);
- One calculating/indicating device (calculator).

The gas elimination device is optional in the case of either air intake or gas release will not occur in the liquid upstream of the meter (e.g. in case a submerged pump is used). A check valve or non-return valve is mandatory if the gas elimination device is not present.

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.

For multi-product dispensers it is only possible to deliver one product at the same time on one side of the dispenser.

Table 1 General characteristics

<table>
<tr>
<td>Intended for the measurement of</td>
<td>Low-viscosity mineral oils with a viscosity of 0,4 mPa·s – 8 mPa·s
<table>
<tr><th>Liquid temperature range</th><th>Qmin</th><th>Qmax</th></tr>
<tr><td>-5 °C / +35 °C</td><td>2,5 L/min</td><td>130 L/min</td></tr>
<tr><td>- 40 °C / +50 °C</td><td>4 L/min</td><td>80 L/min</td></tr>
</table>
- For measuring systems with parallel measurement transducers or gas separators:
• Q_{min}: Shall not be smaller than any Qmin of the components making up the measuring instrument;
• Q_{max}: Shall not exceed 160 L/min (for liquid temperature range - 40 °C / +50 °C) or 200 L/min for a viscosity range of 1,1 – 8,0 mPa·s;
• Measures shall be taken to ensure that the minimum and maximum flow rate of each individual meter is not exceeded.
- In all cases the ratio Q_{max}/Q_{min} shall be at least 10:1.</td>
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</table>

Minimum measured quantity	2 or 5 L (In case the Qmax of the measuring system is less than 60 L/min, the MMQ shall not exceed 5 Litres.)
Maximum pressure	3,6 bar
Environmental classes	M2 / E1
Ambient temperature range	-25 °C / +55 °C -10 °C / +55 °C (when using the multimedia display board)
Power supply voltage	100 … 240 VAC / 50 … 60 Hz

In Table 2 the overview of the essential parts of the measuring instrument are presented. The characteristics of the mentioned parts of the fuel dispenser are presented at Table 3 and higher.

Table 2 Overview parts of the measuring instrument

Part	Producer	Type	OIML certificate	OIML Reports	Remarks
Measurement transducer	Petrotec	PTF 25-80	R117/2019-A-NL1-21.03	-	-
Calculating / indicating device	Petrotec	iMC	-	See Table 3 below	-
Gas separator	Petrotec	PPS	-	See Table 6 Below	-

Table 3 General characteristics of the calculating/indicating device type iMC

Producer	Petrotec
Type	iMC
Documentation folder	TC12103-3
Reports	- NMi-10201018-2 dated 4 May 2011 that includes 81 pages; - NMi-2461049-01 dated 9 July 2021 that includes 56 pages; - NMi-2461049-02 dated 12 July 2021 that includes 22 pages; - NMi-2645006-01 dated 8 October 2024 that includes 69 pages; - NMi-2645006-02 dated 8 October 2024 that includes 35 pages.
Accuracy class	0.5
Environmental classes	M1 / E2
Ambient temperature range	-25 °C / +55 °C -10 °C / +55 °C (when using the multimedia display board)

Power supply voltage	100 … 240 VAC / 50 … 60 Hz
Software identification	See Table 4 or 5 below
Inputs for legally relevant data	- ED-03 (HW) pulse input - TS-01 and TS-01G for temperature input - SST pulse input
Outputs for legally relevant data	- Display; - Communication cable via interface board.
Approved conversion methods	- API Manual of Petroleum Measurements Standards, Chapter 11, Physical Properties Data, Section 1 (also known as ASTM D1250-07) at reference conditions (0 kPa, 15 °C) • tables 54B (refined petroleum products).

Table 4 Software of the calculating/indicating device type iMC

The validated software versions and checksums are:

Identification	Software version	CRC checksum	Remarks
Main CPU	2001	053510	
	2002	051807	
	2003	3561585263	
	2004	2711568992	
Communication: HDX;IFSF;Petrotec/EPS5/; DART;Dunclare;ER3/2;Pumalan;IMP	1000	N/A	
Hydraulic	2000	8705	
Display SD	3000	5128	Conditional
Display MP	2000	5128	Conditional
Display DSP776	1109	0022	Conditional
IST	0306	N/A	Optional
SST (SME-AdBlue)	1000	N/A	Optional
ED-03	58	N/A	Optional

Not all of the software ID above can be present. The validity of the program and the parameters are continuously checked. If these checks fail, an alarm is generated. The metrological software is identified by the software version and/or checksum, which can be checked by turning the program key (which is available on site) to the program position. The checksum value of the legally relevant part of the code is shown on the volume display, while the software version on the unity display.

Remark: Software versions that cannot be shown on some displays are indicated on a label on the processor chip.

Table 5 Software of the calculating/indicating device type iMC running on the conditional multimedia CPU board

The validated software versions and checksums are:

Identification	Software version	CRC checksum	Remarks
emc-calculator	0.2.0	6ba9dffa	
emcd	4.0.0.4	504ab8ca	eMCDevice Proxy

The validity of the program and the parameters are continuously checked. If these checks fail, an alarm is generated. The metrological software is identified by the software version and/or checksum, which can be checked by turning the program key (which is available on site) to the program position. The version and checksum of the legally relevant modules will be shown on the lower part of the multimedia display.

Table 6 General characteristics of the gas elimination device type PPS

Producer	Petrotec
Type	PPS
Documentation folder	TC11924-1
Reports	No. NMi-2454088-01 dated 20 August 2020 that includes 23 pages.
Maximum flow rate	130 L/min for low-viscosity mineral oils with a viscosity of 0,4 mPa·s – 8 mPa·s
Minimum pressure	1,8 bar
Maximum pressure	3,6 bar

Certificate history:

Revision	Date	Description of the modification
0	22 December 2025	Initial version.