Member State of OIML
United Kingdom of Great Britain
and Northern Ireland

OIML Certificate No
R117/2007-GB1-17.03

OIML CERTIFICATE OF CONFORMITY

Issuing authority: **NMO**

Person responsible: **Mannie Panesar – Head of Technical Services**

Applicant: **Metermatic**
Angus Crescent
Longmeadow business estate East
Johannesburg
Gauteng
South Africa

Manufacturer: **The applicant**

Identification of the certified pattern: **EM6 Electronic calculator and indicator**

This certificate attests the conformity of the above-mentioned pattern (represented by the samples identified in the associated test report) with the requirements of the following Recommendation of the International Organisation of Legal Metrology (OIML):

OIML R117 - Edition 2007 (E) for accuracy class: 0.5

This certificate relates only to the metrological and technical characteristics of the pattern of the instrument concerned, as covered by the relevant OIML International Recommendation.

This certificate does not bestow any form of legal international approval.

Important note: Apart from the mention of the certificates reference number and the name of the OIML Member State in which the certificate was issued, partial quotation of the certificate or of the associated test report is not permitted, though they may be reproduced in full.

Issue Date: **13 October 2017**

Grégory Glas
Technical Manager
For and on behalf of the Head of Technical Services

UKAS PRODUCT CERTIFICATION
0135

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NMO is part of the Regulatory Delivery directorate within the Department for Business, Energy & Industrial Strategy

The conformity was established by testing and examinations described in the associated Evaluation Report P02138, which includes 66 pages.

Characteristics

The EM6 is an electronic calculator with indicator for use on road tanker systems or static installations for measurement of liquids other than water. The volume may be temperature compensated.

The EM6 electronic calculator has the following characteristics:

Accuracy class:	0.5
Humidity:	H3
Mechanical environment class:	M3
Electromagnetic environment class:	E2
Temperature range ambient:	-25 °C to +55°C

Functional description

The EM6 has built in preset functionality and is capable of monitoring and pre-setting two flow meters simultaneously.

It can be powered by 220 VAC for fixed installations or 24 DC vehicle voltage battery supply allowing installation on a road tanker.

There are four relays per meter point to allow valve control and integration to external components.

There are two configurable inputs per meter point to allow integration to external functionality such as dead man switch, remote start, flow rate selection and meter direction input.

It is also equipped with two serial ports, one dedicated to RS232 and another selectable between RS232 and RS485 to allow multiple EM6 devices to be installed on the same road tanker or static installation. These serial ports can be configured for either serial communication or a shared printer.

The EM6 is equipped with two 4-wire PT100 temperature interfaces, one per meter point.

Prime Parts with Metrological Function

Description	Manufacturer	Model No:	Part Number
CPU board	Metermatic	EM6-BASE	PCB-MM162202
LCD display module	Topway	LM240160CCW	LM240160CCW
24V DC power module	Metermatic	DPM-100	PCB-MM162204
220V AC power module	Metermatic	APM-100	PCB-MM162201
Pulser*	Metermatic	PPT-300-100	PPT-300-100
Relay interface module	Metermatic	RLM-100	RLM-100
Voltage spike suppressor	Metermatic	SNM-100	PCB-MM162203

***** Or any other compatible pulser.

Ancillary devices

Zero-setting device	(automatic at start of each delivery),
Printing device	(see section 4 for authorised printer),
Memory device	(holds approximately 30000 transactions)
Price indicating device	(optional)

Conversion device (temperature compensation to reference conditions),
Pre-setting device (quantity only)

Temperature Compensation

The EM6 may implement temperature compensation, by utilising a temperature sensor. The temperature sensor is installed in the fuel delivery pipe within one metre from the flow meter.

Any sensor may be installed that complies with the accuracy and response times specified in OIML R117 Edition 2007 (E).

Programming and Electronic Calibration

Programming procedures are described in the “EM6 Calibration and Verification Manual”

Software

The software version number and checksum are held within the memory and are available for viewing by use of the menu and selecting ‘Read Only’ and then selecting ‘Version’ and ‘W & M checksum’

Software version number: EM6-SVH01-0101-00-E

The format is EM6-XXXXX-YYYY-ZZ-E where:
XX represents the family version
YY represents major version changes
ZZ represents minor version changes, and may be any number
E represents the language of operation

The W & M checksum is: 9e93a60

Interfaces

The instrument may have the following interfaces:

- 1 x RS232
- 1 x RS232 or RS485
- CAN BUS

Sealing

The following components must be sealed using a tamper-evident method.

- EM6 Enclosure
- Pulser
- Temperature Sensor

CERTIFICATE HISTORY

ISSUE NO.	DATE	DESCRIPTION
R117/2007-GB1-17.03	13 October 2017	Certificate first issued.
-	-	No revisions have been issued.