



NMO



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

OIML Certificate No
R117/2007-GB1-16.04

OIML CERTIFICATE OF CONFORMITY

Issuing authority: **NMO**
Person responsible: **Max Linnemann – Head of Certification Body**
Applicant: **Gilbarco Veeder-Root**
Address: **Crompton Close,
Basildon,
Essex,
United Kingdom**

Manufacturer: **Gilbarco Veeder-Root India Pvt. Ltd.**
Address: **PDP, Coimbatore Campus,
Coimbatore Ind. Estate
Coimbatore,
641 021, Tamil Nadu,
India**

Identification of the certified pattern: **Liquids other than water dispenser, Frontier**

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: **23rd August 2016**
Reference No: **T1117/0048**

Marek Bokota
Technical Manager
For and on behalf of the Head of Certification Body



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The conformity was established by testing and examinations described in the associated Evaluation Report P01980 which includes 2 pages.

Characteristics of the instrument:

Mechanical Environment Class M2, Electromagnetic Environment Class E1

Each hydraulic circuit consists of:

1. one or two meters, types V, V+, C, C+ or Ecometer
2. GPU90 or GPU140 pump and gas separator, except for use in pressurized (STP) systems
3. one or two delivery hose circuits.

Two hydraulic circuits may be combined for dispensing at the highest flowrate

Table 1 Prime Component Summary

Manufacturer	Type	Evaluation Certificate	Comments
Meters			
Gilbarco Veeder-Root	V, V+ meter	GB-1344	Mechanical or electronic calibration models
Gilbarco Veeder-Root	C, C+ meters	GB-1359	C mechanical calibration C+ electronic calibration
Gilbarco Veeder-Root	Ecometer	GB-1551	
Gas Separators			
Gilbarco Veeder-Root	GPU90	GB-1348	Vane or gear pumps
Gilbarco Veeder-Root	GPU140	GB-1350	Vane or gear pumps
Electronic Calculator			
Gilbarco Veeder-Root	Sandpiper-2 Sandpiper-Apollo	GB-1487	
Gilbarco Veeder-Root	Tulip	GB-1367	

Up to four hydraulic circuits are housed in a single enclosure with one common calculator. Alternatively there may be two calculators each controlling one or two hydraulic circuits in a single enclosure (4 active hose model)

Optional features and functions:

- communications (remote automation)
- electronics for payment at the dispenser, printer,
- vapour recovery systems
- temperature compensation
- delivery speed selection either by pushbutton or nozzle selection
- electronic and/or electromechanical totalizers,
- speakers, preset, keypad, pushbutton options
- slave displays, and/or master-satellite operation

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- additional displays, alternative number of display digits and display size (minimum 6 digits money and volume, 4 digits unit price, and minimum height 25mm)
- multimedia display as described in GB-1487
- NC3 Payment Terminal (alternative name M7)

Maximum Flowrate	Minimum flowrate	Minimum measured quantity l	Maximum volume indication	Maximum unit price	Maximum price to pay	Meter	Liquids
l/min	l/min	l	l	CU/l **	CU **		
40	1.6	1*, 2 or 5	9999999 (Floating decimal)	999999 (Floating decimal)	9999999 (Floating decimal)	V, V+, or C+	Gasoline, Gasoline with up to 86% ethanol or MTBE, Gasoline with up to 5% methanol, Diesel, Biodiesel (up to 100%)
40	4	2 or 5	9999999 (Floating decimal)	999999 (Floating decimal)	9999999 (Floating decimal)	Ecometer or C	Gasoline, Gasoline with up to 86% ethanol or MTBE, Gasoline with up to 5% methanol, Diesel, Biodiesel (up to 100%)
80	1.6	2, 5 or 10	9999999 (Floating decimal)	999999 (Floating decimal)	9999999 (Floating decimal)	V, V+, or C+	Gasoline, Gasoline with up to 86% ethanol or MTBE, Gasoline with up to 5% methanol, Diesel, Biodiesel (up to 100%)
80	4	2, 5 or 10	9999999 (Floating decimal)	999999 (Floating decimal)	9999999 (Floating decimal)	Ecometer or C	Gasoline, Gasoline with up to 86% ethanol or MTBE, Gasoline with up to 5% methanol, Diesel, Biodiesel (up to 100%)
130	3.2	2, 5 or 10	9999999 (Floating decimal)	999999 (Floating decimal)	9999999 (Floating decimal)	V, V+, or C+	Diesel, Biodiesel (up to 100%)
130	8	2, 5 or 10	9999999 (Floating decimal)	999999 (Floating decimal)	9999999 (Floating decimal)	Ecometer or C	Diesel, Biodiesel (up to 100%)

Extended temperature range -40°C to +55°C with low temperature version of C+ meter or Ecometer

*Note: this is outside of the scope of the recommendation. Utilising the C+ meter only, the meter has been shown to measure within the accuracy limits defined by OIML R117-1 2007 (E) at a minimum delivery of 1 litre. Any dispenser quoting a minimum delivery of 1 litre shall limit Qmax and hose length, and provide appropriate pulser and display resolution, in order to ensure compliance with limits for hose expansion masking at the start of delivery, preset handling, pulser check periods and maximum increments of quantity registration.

** : Currency Unit according to national legislation

CERTIFICATE HISTORY

ISSUE NO.	DATE	DESCRIPTION
R117/2007-GB1-16.04	23 rd August 2016	Certificate first issued.
-	-	No revisions have been issued.