



CERTIFIKAT

No. 12 76 12

EVALUATION CERTIFICATE (certificate for a part of a measuring system for LOTW)

Outdoor Payment terminal (OPT) for cards/bank notes, NC3/NP3 L/P/C

Issued to

Gilbarco Autotank AB, Box 11059, SE-161 11 Bromma, Sweden

In respect of (part of instrument)

Payment terminal device for cards and banknotes, intended for use with fuel dispensers for motor vehicles.

Characteristics/rated operating conditions

The evaluated part of a measuring system for LOTW is a self service device for direct sales, interruptible, unattended prepayment and delayed payment, including a printer.

Accuracy class 0,5
Mechanic class: class M1
Electromagnetic class: class E1
Ambient temperature limits: -40°C to +55°C
Humidity: condensing
Location: open

In accordance with

WELMEC Guide 8.8, Issue 2 "General and Administrative Aspects of the Voluntary System of Modular Evaluation of Measuring instruments under the MID".

This Evaluation Certificate is the positive result of the applied voluntary system of modular evaluation, according to WELMEC Guide 8.8, for a part of a measuring system for the continuous and dynamic measurement of quantities of liquids other than water.

This Evaluation Certificate may only be used in combination with fuel dispensers and other SSD's (Self Service Devices), POS et c manufactured by Gilbarco Autotank AB or after permission of Gilbarco Autotank AB.

Applicable essential requirements

- MID, Annex I, Essential requirements
- MID, Annex MI-005, Measuring systems for the continuous and dynamic measurement of quantities of liquids other than water (LOTW)

Certificate issued by an Accredited Certification Body - date of issue: June 30, 2011 - Page 1 (2)



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Harmonised standards and normative documents used

Applicable parts of the following normative documents referred to in the Official Journal of the European Union 2006/C 269/01 and 2011/C 33/01:

- OIML R 117 Edition 1995 (E), Measuring systems for liquids other than water
- OIML D 11 Edition 2004 (E), General requirements for electronic measuring instruments
- OIML R 117-1 Edition 2007 (E), Dynamic measuring systems for liquids other than water

Further applied documents

- WELMEC 7.2, Software Guide (Issue 4)
- The Measuring Instruments Regulation, STAFS 2006:4
- Regulations and Guidelines concerning Measuring Systems for the Continuous and Dynamic Measurement of Quantities other than Water, STAFS 2006:9
- SP's Certification Rules SPCR 045/046/047

Validity

Valid until January 27, 2020.

Miscellaneous

This issue of the certificate is the 2nd, extended, edition, and replaces earlier issue. The first edition was issued on January 27, 2010.

The principal characteristics, approval conditions are set out in the appendix hereto, which forms part of the approval documents and consists of 8 pages. All the plans, schematic diagrams and documentations are recorded under reference files MTvP902878. The evaluation report MTvP902878-02 has been issued in accordance with WELMEC Guide 8.8, Voluntary system of Modular Evaluation.

Borås, June 30, 2011

**SP Technical Research Institute of Sweden
Certification**


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Certificate issued by an Accredited Certification Body - date of issue: June 30, 2011 - Page 2 (2)



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0 Conditions

The use of this Evaluation Certificate is limited to:

Combination with "any" fuel dispenser/POS manufactured by Gilbarco-Autotank AB or for other parties after permission of Gilbarco-Autotank AB under the following conditions:

- The communication protocols defined in this certificate are used
- The fuel dispenser/POS having an EC-type examination certificate covering compatibility with the communication protocol used
- The fuel dispenser/POS having a National Type approval covering compatibility with the communication protocol used

The device must correspond with the following specifications:

1 Design of the device

1.1 Construction

Payment terminal description

The payment terminal is a self service device for unattended prepayment (bank notes) and delayed payment (card), direct sales, in an interruptible measuring system. It includes a printing device. It does not include a presetting or memory device.

The payment terminal is peripheral and connected to a station controller/point of sale system (master) through serial communication, physical link Ethernet. The station controller creates and formats customer receipt data. The NC3/NP3 can handle two situations:

MID "approved" station controller:

If the station computer includes the corresponding external signature key as in the OPT "Secure MID Module", the printed row with legally relevant data will start with a §-character.

STATOIL		Statoil Häggvik Norrviksleden 1 191 49 Sollentuna 08-35 33 90 Orgnr: 556020-3282 VAT SE66300097101		Terminal nr 01 Tid 11:33	
§ Löp.nr	0139	§ Datum	2009-12-08	§ Grön 95	31,02 L x 12,45 SEK/L 386,20
§ Totalt				§ Totalt	386,20
Kortbetalning SEK 386,20					
Noms %	Noms	netto	brutto		
25	77,24	308,96	386,20		
Transstyp: Köp		Ver.-nr: 6305		Personlig kod	
Visa	455262 **** ** 6481	Belopp: 386,20 SEK		Kontrollnr: 124784 Butiksnummer: 120006	
RefNr/Stat: 266261016428 / O A 1 00 5 SP		KVITTO		Tack för besöket! Välkommen åter!	

Non-MID "approved" station controller:

If the station computer does not include the corresponding external signature key as in the OPT "Secure MID Module", the printed row with legally relevant data will not include any §-character.

The payment terminal can be mounted directly on a fuel dispenser (Crind, card reader in dispenser) or be a separate device, (stand alone OPT). The casing comes in 3 models; L, P and C, and the display in 2 models; "High end" (fig 1, 3, 7) and "Mid range" (fig 2, 4, 5, 6, 8, 9).

Model	Display	Installation	Payment	Figure
NC3 L	High end	Crind	Card	
NC3 L	Mid range	Crind	Card	6
NC3 P	High end	Crind	Card	
NC3 P	Mid range	Crind	Card	
NC3 P	High end	Stand alone OPT	Card	
NP3 P	High end	Stand alone OPT	Card, bank note	7
NC3 P	Mid range	Stand alone OPT	Card	
NP3 P	Mid range	Stand alone OPT	Card, bank note	
NC3 C	Mid range	Crind	Card	8
NC3 C	Mid range	Stand alone OPT	Card	
NP3 C	Mid range	Stand alone OPT	Card, bank note	9

Fig 6, 7, 8 and 9 are examples of configurations



Fig 1: NC3 L, High end



Fig 2: NC3 L, Mid range



Fig 3: NC3 P, High end



Fig 4: NC3 P, Mid range



Fig 5: NC3 C, Mid range



Fig 6: NC3 L, Mid range, Crind



Fig 7: NP3 P, High end, stand alone



Fig 8: NC3 C Mid range Crind



Fig 9: NP3 C, Mid range, stand alone

1.2 Components included

CPU board (1 or 2 pcs)

Gilbarco-Autotank AB 203344-01 (500 MHz) or
203344-02 (1,6 GHz)

Operating system (CPU board)

Microsoft Windows XP embedded Standard 5.1
with Service Pack 3 or higher

Legally relevant software

SecureMIDModule.dll, version 1.1.0.0, checksum
5A1818E461DB27E8515275E9D48CA07A

Application software (CPU board)

Gilbarco-Autotank AB NordicCard 3 SW

Card reader Unit (1 or 2 pcs)

Gilbarco Veeder-Root E8211280 (including
Sankyo ICT3Q8-3A0260 card reader) or
equivalent with CE-marking and suitable climate
specification (*such as Hypercom H2210 and
H2220)



Secure Key Pad (1 or 2 pcs)	Gilbarco Veeder-Root E8211279 or Hypercom K1200 or equivalent with CE-marking and suitable climate specification
Bank note acceptor (0 or 1 pc)	Ardac AEF7CLSE00004 or equivalent with CE-marking and suitable climate specification
Printer (1 or 2 pcs)	Custom Engineering S.p.A. TG2460-S-N-0118-IG44-1 or Zebra Technologies TTP 2030 01973-405
SPOT M4 display module for Gilbarco Veeder-Root cardreader/keypad (including security CPU and touch soft keys) (1 or 2 pcs)	Gilbarco Veeder-Root E8211281 (7" for Mid range models) or E8211282 (12" for High end models)
Display module for Hypercom cardreader/keypad (1 or 2 pcs)	113611-01 (7" for Mid range models) or 113611-02 (12" for High end models)
Power supply (1 or 2 pcs)	Abletec SMP253-01
Power supply (for Bank note acceptor and Bank note column fan) (0 or 1 pc)	Astec LPS63
Line filter (1 pc)	Epcos B84115-E-B30
Capacitor (1 or 2 pcs)	F&T Kondensatoren GmbH GM IEC 60 384-4 or equivalent
Heating fan (1 or 2 pcs)	DBK Technitherm Ltd. FGC1628 Cirrus 40/2 260W (for NC/NP3 C and NC/NP3 P models) or FGC3050 Cirrus 60 300W (for NC3 L models) or equivalent
Thermostat for heating fan (1 or 2 pcs)	Stego FTO 011, 01160.0-01 or equivalent
Fan (Bank note column) (0 or 1 pc)	NMB 361OPS 23T B30 or equivalent

*according to Gilbarco Autotank, not evaluated by SP.

1.3 Optional equipment and functions subject to MID requirements

Not applicable

1.4 Technical documentation

For market surveillance the construction and included components are described in 1.1 and 1.2. The metrological software is identified by the "SecureMIDModule.dll" checksum, which can be accessed according to 5.3.



1.5 Integrated equipment and functions not subject to MID

Not applicable

2 Technical data

2.1 Rated operating conditions

Payment terminal device for cards and bank notes, intended for use with fuel dispensers for motor vehicles.

Self service device for direct sales, interruptible, unattended prepayment and delayed payment, including a printer.

Measurement range

Minimum measured quantity (mmq)	≥ 1 l
Scale interval, printed volume	0,01 l
Scale interval, printed price	0,01 "PRICE"

Accuracy class of measuring system

0,5 or 1,0

Environments classes / influence quantities

Mechanic:	class M1
Electromagnetic:	class E1
Ambient temperature limits:	-40°C to +55°C
Humidity:	condensing
Location:	open

2.2 Other operating conditions

Not applicable

3 Interfaces and compatibility conditions

Communication with one station controller of a measuring system using the following protocol:

Data Protocol: ATAP (Autotank Application Protocol) and ATTP (Autotank Transport Protocol)

Physical Interface: Ethernet

Installation: Shielded Twisted Pair Cat 6 or Cat 5E cable. Shield is grounded inside the OPT.

The station controller creates and formats customer receipt data, including time and date of measurement, product name, pump number, fuel volume, price per volume unit and total price. The NC3/NP3 can handle two situations:

MID "approved" station controller:

The station computer signs printer rows with legally relevant data using the corresponding external signature key as in the OPT "SecureMIDModule.dll" and sends the rows attached with the generated checksum to NC3/NP3. NC3/NP3 "SecureMIDModule.dll" checks the checksum and the printer will only print legally relevant data, if the checksum is correct. The printed row with legally relevant data will start with a §-character.

Non-MID "approved" station controller:

If the station computer does not include the corresponding external signature key as in the OPT "SecureMIDModule.dll", the legally relevant data will be signed (attached by a checksum) by an internal key when arriving to the NC3/NP3. The printer will only print legally relevant data,



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if the internal checksum is correct. The printed row with legally relevant data will not include any §-character.

The payment terminal may only be used in a measuring system with:

- indicating device scale interval ≥ 0.01 l
- $MSVD \geq 0,01$ l, which in a class 0,5 system corresponds to $mmq \geq 1$ l
- $MSPD \geq 0,01$ "PRICE"
- all volume indicating and memory devices scale interval = 0,01 l
- all price indicating and memory devices scale interval = 0,01 "PRICE"
- a memory device on which measurement data are registered (OIML R117-1 (2007), 5.10.3.1.1, 5.10.3.1.5, 5.10.3.2)
- a function that sends warnings from the checking facilities to the payment terminal for presentation on the display (OIML R117-1 (2007), 5.10.3.1.2)

4 Requirements on production, putting into use and utilisation

4.1 Requirements on production

No special requirements identified.

4.2 Requirements on putting into use

Functional test of NC/NP3 is performed in the factory according to the Gilbarco document "Instructions for testing NC3C/NC3L/NC3P"26-10-2009.

NC/NP3 test

- Initialisation of SW
- Card Transaction, if NP3 also Note payment transaction, simulation sequence.
- Verifying that the terminal emits a receipt
- Verifying paper out detection
- Verifying tamper switches function in sequence
- Verifying fan, heater and thermostat working

4.3 Requirements for consistent utilisations

No special requirements identified.

5 Control of the measuring tasks of the device in use

5.1 Documentation of the procedure

No special requirements identified.

5.2 Special equipment or software, if applicable

No special requirements identified.

5.3 Identification of

- Hardware

The construction and included components are described in 1.1 and 1.2.





- Software

The legally relevant software is identified by the checksum ("SecureMIDModule.dll checksum", see 1.2).

Identification of the software in the NC3/NP3 can be printed on an "INSPECTION RECEIPT" in three different ways:

- by pressing a MID button on the display at startup of the NC3/NP3 (displayed for a few seconds).
- by inserting a specific inspection card. When the inspection card is inserted, it will be recognized locally by the terminal and a receipt will be printed. The receipt shows the current and earlier version and checksum of the "SecureMIDModule.dll".
- by sending a command (PRINTRMIDCHKTRUE) from the Station Controller to NC3 which then prints the "INSPECTION RECEIPT"

Example of receipt identifying the software

```
MID INSPECTION
2010-01-20 13:08:21
STATID 123456
Johannesfredsvägen 9
Stockholm
Sweden
Current Version:
MID ver:1.0.0.0
MID crc:85A3FC222D163574FABB76E6C333E620
Version History:
MID ver:1.0.0.0
MID crc:85A3FC222D163574FABB76E6C333E620
```

There is also a possibility to ask for the checksum from the station controller. In this case, no receipt will be printed.

5.4 Calibration-/adjustment procedure

Not applicable

6 Security measures

6.1 Sealing

The payment terminal is not sealed.

6.2 Data logger

The payment terminal may only used in a measuring system with a memory device on which measurement data are registered (OIML R117-1 (2007), 5.10.3.1.1, 5.10.3.1.5, 5.10.3.2)



7 Labelling and inscriptions

7.1 Information to be borne by and to accompany the device

The marking plate/label mounted on the device shall contain the following information:

- the name and address of the manufacturer
- the serial number of the payment terminal and year of manufacture
- the designation or type name
- the Evaluation Certificate number, 12 76 12, of the payment terminal
- the ambient temperature range
- mechanical class
- electromagnetic class
- place for the verification sticker

7.2 Conformity marking in accordance to MID article 17

This Evaluation Certificate is not an EC-type examination Certificate. Therefore the payment terminal must not be marked with the supplementary metrology marking "M xx", following the CE marking.

7.3 Further inscriptions, if necessary

No special requirements identified.