



CERTIFIKAT

No. 10 70 24

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

Forecourt controller and Point-of-sale system, Wayne Fusion

Issued to

Dresser Wayne AB
Hanögatan 10, SE-211 24 Malmö, Sweden
Limhamnsvägen 109, SE-216 13 Limhamn, Sweden

In respect of (part of instrument)

Forecourt controller and point of sale device (POS), intended for use with fuel dispensers for motor vehicles.

Characteristics/rated operating conditions

The evaluated part of a measuring system for liquids other than water (LOTW) is a forecourt controller and POS, for direct sales, interruptible, attended pre-payment and post-payment including sale stacking and memory device for unattended delayed payment. It includes indication for seller, a printer and a memory device.

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

In accordance with

WELMEC Guide 8.8, Issue 1 "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 payment terminals, POS etc manufactured by Dresser Wayne AB or after permission by Dresser Wayne 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)



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Certificate issued by an Accredited Certification Body - date of issue: November 17, 2010 - 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:

- 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

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
- OIML R 117-1 Edition 2007 (E), Dynamic measuring systems for liquids other than water

Validity

Valid until June 10, 2020.

Miscellaneous

This issue of the certificate is the 3rd, extended, edition, and replaces earlier issues. The first edition was issued on June 10, 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 MTvP904275. The evaluation report MTvP904275C has been issued in accordance with WELMEC Guide 8.8, Voluntary system of Modular Evaluation.

Borås, November 17, 2010

**SP Technical Research Institute of Sweden
Certification**



Lennart Aronsson
Certification Manager



Kerstin Mattiasson
Certification Officer



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0 Conditions

The use of this Evaluation Certificate is limited to:

Combination with "any" fuel dispenser/payment terminal manufactured by Dresser Wayne AB, or by other manufacturer holding a written permission by Dresser Wayne AB, under the following conditions:

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

Other parties may use this EC only with written permission by Dresser Wayne AB, PO-Box 50559, SE-202 15 Malmö, Sweden.

The device must correspond with the following specifications:

1 Design of the device

1.1 Construction

Fusion forecourt system description

Fusion forecourt system description consists of the Fusion controller (SW) and the Fusion forecourt system hardware. On the Fusion system hardware, also an embedded POS (SW) can be running.

The Fusion forecourt controller (FC) is master. Fuel dispensers and outdoor payment terminals are connected through serial communication, multi-drop link. POS and central computer are connected through LAN.

The FC has the following functionality:

- Controlling the working mode of the dispensers, authorization/blocking fuelling, price setting and remote reading of transaction data at the dispenser.
- Manage the database for long-time storage of transaction data.
- Communication with the fuel dispenses through hardware and protocols listed below.
- Communication with an external POS over LAN through the software (SW) protocol FDCPOS.

Together with an embedded or external POS providing unattended self-service mode, the FC also manage these functionalities:

- Presetting the dispenser for unattended prepaid transaction paid through a banknote acceptor.
- Authorizing the dispensers and controlling the receipt for unattended filling paid by card (unattended delayed post payment).
- Communication with outdoor payment terminals through hardware and SW protocols listed below.



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POS description

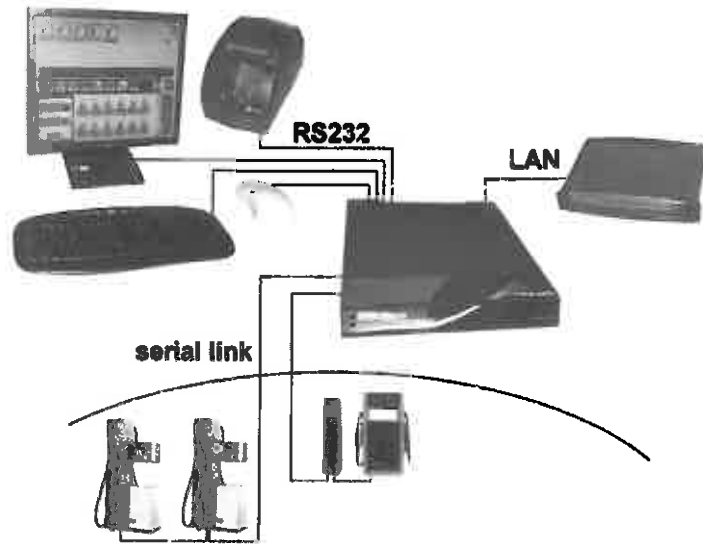
The Point Of sale System (POS) SW can be embedded in FC or running on an external computer that is connected through LAN to the FC. The POS "administrates" attended pre-payment, post-payment including sale stacking, direct sales, in an interruptible measuring system. It includes an indication for the seller and a printing device for the benefit of the customer.

Embedded POS is running on the FC hardware and have peripheral equipment connected to the FC hardware (keyboard, mouse, display for the clerk, receipt printer etc). The embedded POS SW communicates with the FC through the FDCPOS protocol.

External POS is running on its own computer and is connected to the FC through LAN. The peripheral equipment is connected to the computer running the POS SW (keyboard, mouse, display for the clerk, receipt printer etc). The external POS communicates with the FC over LAN through the FDCPOS protocol.

The FC can work in the following service modes with the listed POS configurations:

	Attended post-payment	Attended pre-payment	Unattended delayed-payment	Unattended pre-payment
Fusion Forecourt Controller and FusionConsole Software (POS)	X	X		
Fusion Forecourt Controller and embedded Eurosinp POS	X	X	X	X
Fusion Forecourt Controller and external Eurosinp POS	X	X	X	X



Picture 1: Typical configuration for Fusion forecourt system with embedded POS

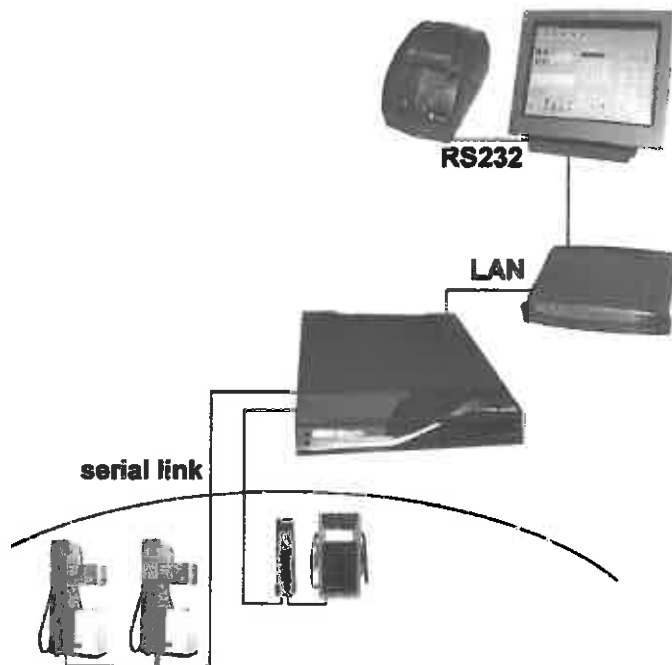


Figure 2: Typical configuration for Fusion forecourt system with external POS



1.2 Components included

Fusion forecourt system hardware:

CPU-board (1 pcs)	IEI Technology Corp. NOVA-945GSE-N270-R10-5V-BULK
Operating system	Microsoft Windows XP Embedded Standard, Service Pack 3 or higher
CUPS-board (1pcs)	Dresser Wayne WU000995-000X
GRIB-board (1, 2 or 3 pcs)	Dresser Wayne WU000992-0001, WU000813 or TSO21024
Power supply (1 pcs)	Cincon Electronics Co., LTD TR70A24-01A03
Chassis (1 pcs)	Dresser Wayne WU001807 or WU000988-0001
Cover (1 pcs)	Dresser Wayne WU001808 or WU000845

Additional hardware for Fusion forecourt system with embedded POS:

Clerk display	Acer V173 Bb or equivalent CE-marked VGA display tested by Dresser Wayne
Mouse	Any CE-marked mouse tested by Dresser Wayne
Clerk Keyboard	Any CE-marked keyboard tested by Dresser Wayne
Receipt printer	Custom Engineering S.p.A. XTHEA-UA33 or equivalent, with CE-marking and suitable climate specification, tested by Dresser Wayne under the condition that the functionality of the checking facilities for power off, decoupling/no serial communication, end of paper, is the same.

Hardware for external POS:

Computer	IBM SurePOS 500 Series or equivalent, with CE-marking, suitable climate specification, 1.0 GHz processor, 512 MB system memory and 160 GB hard disk drive or better performance
Operating system	Microsoft Windows XP Embedded for Point of service, version 1.0
Mouse	Any CE-marked mouse tested by Dresser Wayne
Clerk Keyboard	Any CE-marked keyboard tested by Dresser Wayne





Appendix to
EVALUATION CERTIFICATE - No. 10 70 24
dated November 17, 2010

Receipt printer

Custom Engineering S.p.A. XTHEA-UA33 or equivalent, with CE-marking and suitable climate specification, tested by Dresser Wayne under the condition that the functionality of the checking facilities for power off, decoupling/no serial communication, end of paper, is the same.

Soft seal list for SW modules running on Fusion forecourt system hardware:

Module Name	Module Unique ID	CRC
Aspro Develco	1791C244 or A2FC8A31	4C361E26 or 81842EAF
Autotank	993E996E or EEF7E758	2CC0D301 or 2697F18B
Bennett-485	008868EB or 3A377F91	D105912B or 849CED5D
Bennett-CL	D1342917 or 23B97364	BF141AFE or 5ED72C89
Bogus	926DDD86 or 2413DDAF	7E8E26CB or 46921FCA
DOMS-5000	47C517BE or C2A35D7E	19B17889 or E10A59B4
DartWayne	716352DB or 4E4CCEA5 or E10A59B4	14F8920C or 417ADD4E or CA5075D3
FDCPOSInterfaceServer.dll	F38C9B2D or 0A826FD8	8336C451 or 7A153FF6
GUIConsole.jar	33ABD0C6 or CB05550C	98A0D3C8 or 870A978C
GUIPump.jar	167E60C4 or 074D06C8	5A8BAD6D or 40FB8304
Galileo	3A498538 or 0CEFDDC2	DE626900 or 33A3D81E
Gilbarco	F18B0545 or F443A25C	2527B770 or 8957294D
IFSF	039C8A48 or D9FD0DBC	D5F9B8A9 or A4957D7E
Kraus	B7AE3D9D or 7EE6C702	089F2D26 or DB71BC8B
Ljungmans	69A48668 or 23FCD34F	6BCB62F5 or 520FAFB0
Logitron	2D5E6A7E or 51D1C604 or 057CB871	90FB03A8 or 429C6E5F or 25EF00C5
NuovoPignone	B91F2409 or 8BD78473 or 5BD1B991	80C70409 or 17342425 or D044C6F9
OrpakPIR	777CBDEA or 352A75BA	BE7756E9 or 1E0DC92B
SSF.FC.exe	4BC9D709 or D6ABDB03	F10B0308 or 9E7FDC5A
SSF.Router.Message.dll	62F610EA or E4B85B9B	140B506D or 44C81F17
SSF.Spirit.Ticket.Module.exe	A13AD583 or 7C9DF6C9	DF4F63A9 or DD798B04
SSF.Spirit.Ticket.Robot.exe	164B56DA or 6A6B2DE5	82A068DF or 5E3EF683
SSF.Spirit.Watchdog.exe	D0BD7811 or BA15574E	3A075DDA or 03B0CFE0
TatsunoMono	38E4195C or CFAED8D3	39AF1AF7 or 78DE99E3
TeosisDCR	FF6DB56B or 6B585E27	1F5EFC71 or 4C844B95
Tokheim-US	E7F00BD5 or 2CFB290C	F039F4E9 or 5C9867FA
Wayne	8E319A01 or F9A58EA1	5B21E42B or 640B0359
FDCOptReceiptFormatter	2F27C0B0	D11C65B9



Soft seal list for SW modules belonging to the POS that can be running either on external computer or on Fusion forecourt system hardware:

Module Name	Module Unique ID	CRC
FusionSoftseal.dll	60180 or 31575	F41B927F or FBF0C65C
SINPBOS.exe	13035 or 33291	469B249E or BD4779C3
SINPPOS.exe	352 or 40475	8EEA25AD or 4F11C14C
SSF.FC.exe	4BC9D709 or D6ABDB03	F10B0308 or 9E7FDC5A
sinpMCHigh.exe	52573 or 42310	F6D18182 or 0A2B791E
sinpMCLite.exe	45126 or 64004	94BAF2E6 or C29A8A1F
FControlFUSIONCF.dll	56616 or 41082	0510A9B2 or 16BFD75B

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 "Module Unique ID" and the "CRC" of each software module, which can be accessed according to 5.3

1.5 Integrated equipment and functions not subject to MID

The following equipment may be connected to the FC (without change of this certificate):

- Tank level sensors
- Car wash systems
- Price pole system

2 Technical data

2.1 Rated operating conditions

Forecourt system and POS, intended for use with fuel dispensers for motor vehicles, direct sales in an interruptible measuring system.

Device for attended pre-payment and post-payment including sale stacking, and memory device for unattended delayed payment. It includes indication for seller, a printer and a memory device.

Measurement range

Scale interval, printed volume same as dispenser, but not smaller than 0,01 l

Scale interval, printed price same as dispenser, but not smaller than 0,01 "PRICE"

Accuracy class of measuring system

0,5 or higher

Environments classes / influence quantities

Mechanic: class M1
Electromagnetic: class E1
Ambient temperature limits: +5 °C to +40 °C
Humidity: non-condensing
Location: closed



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2.2 Other operating conditions

Not applicable

3 Interfaces and compatibility conditions

Communication with other parts of a measuring system (e.g. fuel dispensers, external POS-systems not included in this EC) using one of the following protocols:

SW protocol	Hardware (GRIB)
DART	RS485 RS422
LJCL	RS422
NPCL	NPCL
USCL	CL

Installation: Shielded communication cable with screen connected in both ends.

The device may only be used in a measuring system with:

- all volume indicating having the same scale interval as Fusion (but not smaller than 0,01 l)
- all price indicating having the same scale interval as Fusion (but not smaller than 0,01 "PRICE")

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 system link and printer may be performed in the factory according to DW Manufacturing Test requirement specification.

System link

#	Test	Notes
1	System link test	Connect the serial link to the test system. Check that the terminal and pump are connected on the link and Opens for card sale

Printer

#	Test	Notes
1	Start a filling Perform a sale in the POS.	A ticket should be printed as confirmation of the sale.
2	Check blackening	The printing should be black with good readability
3	Remove paper roll	System should indicate out of paper

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.



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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 modules are identified by the "Module Unique ID" and the "CRC" (see 1.2) listed in the soft seal list. The soft seal list is available through the web interface logging on as an "officer" and open the "MID soft seal list" under Miscellaneous on the Report menu.

5.4 Calibration-/adjustment procedure

Not applicable

6 Security measures

6.1 Sealing

The forecourt controller or POS are not sealed.

6.2 Data logger

Data base in forecourt controller (FC) acts as memory device for unattended delayed payment with cards.

7 Labelling and inscriptions

7.1 Information to be borne by and to accompany the device

The marking plate/label mounted on the Fusion Forecourt System hardware ("blue box") shall contain the following information:

- the name and address of the manufacturer
- the serial number of the FC HW and year of manufacture
- the designation or type name
- the Evaluation Certificate number, 10 70 24
- 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.



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