Evaluation Certificate

107029 Certificate for a part of a measuring system for LOTW

Forecourt controller and Point-of-sale system, Wayne Fusion V2

Issued to

Wayne Fueling Systems Sweden AB
P O Box 50559, SE-20215 Malmö, Sweden

In respect of (part of instrument)

Forecourt controller and Point-of-sale device (POS), a purely digital self-service device (SSD) 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, a self service device for direct sales, interruptible, attended pre-payment and post-payment including sale stacking and unattended pre-payment and delayed payment. It includes indication for seller, a printer and a memory device for unattended delayed payment.

Accuracy class: 0,5

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”,
- WELMEC Guide 10.7, Issue 1 “Guide on evaluating purely digital self-service devices (PDSSD) for sales to the public” and
- WELMEC Guide 7.2, Issue 5 “Software Guide”.

This Evaluation Certificate is the positive result of the applied modular approach under these WELMEC Guides, for a part of a measuring system for the continuous and dynamic measurement of quantities of liquids other than water.

This is not a MID Certificate (EU-type examination certificate according to 2014/32/EU), but the MID requirements have been applied. The complete measuring system shall be subject to a conformity assessment procedure as described in MID.

This Evaluation Certificate may only be used in combination with fuel dispensers and payment terminals, POS etc manufactured by Wayne Fueling Systems Sweden AB or after permission by Wayne Fueling Systems Sweden AB.

Applicable essential requirements MID 2014/32/EU

- 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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Harmonised standards and normative documents used

Applicable parts of the following normative documents referred to in the Official Journal of the European Union 2011/C33/01:

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

Further applied documents:

- The Measuring Instruments Regulation, STAFS 2016:1
- Regulations and Guidelines concerning Measuring Systems for the Continuous and Dynamic Measurement of Quantities other than Water, STAFS 2016:6
- SP´s Certification Rules SPCR 181

Validity

Valid until October 31, 2024.

Miscellaneous

This issue of the certificate is the 4th, extended edition, and replaces earlier issues. The first edition was issued on October 31, 2014.

The principal characteristics, approval conditions are set out in the appendix hereto, which forms part of the approval documents. All the plans, schematic diagrams and documentations are recorded under reference file 4P03743, 5P01815 and 6P08571 and 7P05125. The evaluation report 4P03743-1 has been issued in accordance with WELMEC Guide 8.8, Voluntary system of Modular Evaluation.

Lennart Aronsson Kerstin Mattiasson

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0 Conditions

The use of this Evaluation Certificate is limited to:
Combination with "any" fuel dispenser/payment terminal manufactured by Wayne Fueling Systems Sweden 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 or Parts 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 Wayne Fueling Systems Sweden 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 V2 is a part of a self service arrangement.

Fusion forecourt system description

Fusion forecourt system consists of the Fusion forecourt controller (SW) and the Fusion V2 hardware. On the Fusion V2 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 one of the interfaces listed under paragraph 3 below.

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 through one of the protocols listed under paragraph 3 below.

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

- Pre-setting 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). The LR data of the ticket is formatted by FC.
- 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 to the FC through one of the protocols listed under paragraph 3 below. 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. (The memory device is also used for sales stacking.)

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 one of the protocols listed under paragraph 3 below.

External POS is running on its own computer and is connected to the FC through one of the interfaces listed under paragraph 3 below. 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 one of the protocols listed under paragraph 3 below.

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
Fusion Forecourt Controller and embedded GUI for unmanned stations ("EU Fusion 6000")			X	X
Fusion Forecourt Controller and embedded GUI for "EU Fusion 6000"	X		X	X
Fusion Forecourt Controller and external "Wincor NAMOS Compact POS" (Parts Certificate SP No. SC0119-16)	X	X	X	
EUROFUSION consisting of Fusion Forecourt controller, and embedded or external "SINP POS", or embedded and external "SINP POS"	X	X	X	X

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

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

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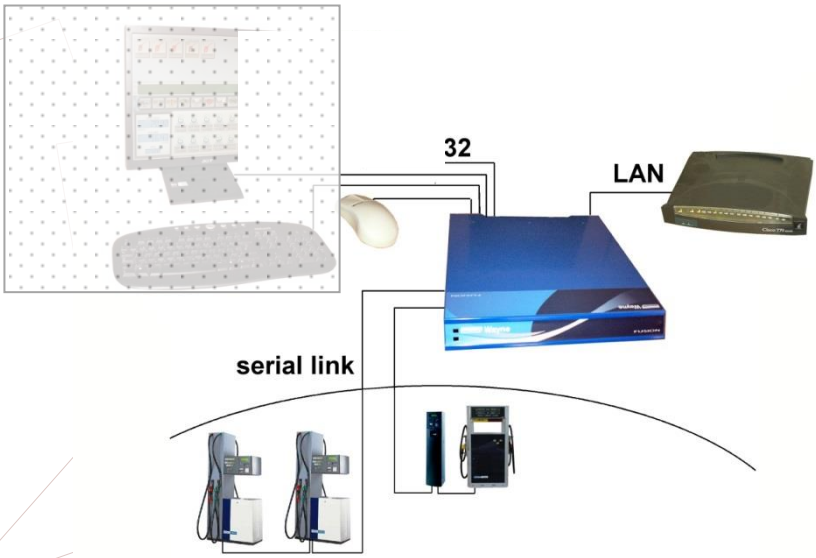

Figure 3: Typical configuration for Fusion forecourt system with embedded GUI for unmanned stations

1.2 Components included

The hardware of the self-service device should comply with the EMC-directive and other applicable directives as specified in the Declaration of Conformity of the self-service device. Customer display may be used but is not mandatory.

Hardware for Fusion forecourt system:

Fusion V2 Base	WU008980-0002
CPU-board (1 pcs)	Intel Atom Cedarview-M N2800 1,86GHz CPU* and at least 2 pair of 2GB DDR DRAM*
Operating system	Microsoft Windows XP Embedded Standard, Service Pack 3 or higher or Microsoft Windows Embedded POSReady 2009, Service Pack 3 or higher
Memory device, solid state drive (SSD)	SanDisk X110, SD6SB1M128G1022I*, minimum 128 MB
Supercap board (1pcs)	WU008955-0001*
GRIB-board (1, 2, 3 or 4 pcs)	Wayne WU000992-0001, WU000813, WM044670-0001, WM042587-0001, WU009209-0001, WU009223-0001 or WU010234-0001
Power supply (1 pcs)	Cincon TRG70A240*

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Additional hardware for Fusion forecourt system with embedded POS:

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

Additional hardware for Fusion forecourt system at an unmanned station:

Display	Acer V173 Bb*
Mouse	Any CE-marked mouse tested by Wayne
Keyboard	Any CE-marked keyboard tested by Wayne

Additional Hardware for external POS: "EU Fusion 6000"

Computer	Terra 1008027*, 3.3 GHz processor, 4 GB system memory and 500 GB hard disk drive or better performance
Operating system	Windows Embedded POSReady 7
Clerk display	Dell E24WFPb*
Mouse	Any CE-marked mouse tested by Wayne
Clerk Keyboard	Any CE-marked keyboard tested by Wayne
Receipt printer	Epson M128C or equivalent, with CE-marking and suitable climate specification, tested by Wayne under the condition that the functionality of the checking facilities for power off, decoupling/no serial communication, end of paper, is the same.

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Additional hardware for external POS: "SINP POS"

Computer	Intel Atom n270 1.6 GHz processor, 2GB system memory and 40 GB hard disk drive capacity or better performance
Operating system	Windows Embedded POSReady 9
Clerk display	Dell E24WFPb*
Mouse	Any CE-marked mouse tested by Wayne
Clerk Keyboard	Any CE-marked keyboard tested by Wayne
Receipt printer	Epson M128C or equivalent, with CE-marking and suitable climate specification, tested by Wayne under the condition that the functionality of the checking facilities for power off, decoupling/no serial communication, end of paper, is the same.

**or equivalent with CE-marking and suitable climate specification and tested by Wayne*

Software specification according to WG 7.2:

Software type	U
Risk class	C
Extension	L, T, S, D

Soft seal list for SW modules for Fusion Forecourt Controller running on Fusion V2 hardware:

Module Name	Module Unique ID	CRC
Aspro Develco	6BA1455F or 105B3D49 or B1DD089B or 033881BF	D99E600E or 39F817C3 or 0A448EB2 or C299F7E7
Autotank	845FBBD9 or EC1C44B3 or 372237F4 or BD1B94B8	00626E08 or 9D2B6DB2 or CB2C540D or AD73CC6B
Bennett-485	F96FCA65 or 9B817507 or 30800BE2 or CBB6CE17	54DACED4 or B30E0846 or 8714D370 or A66D8E54
Bennett-CL	C4F55B54 or 4C241D6B or 2A2C2EB7 or A448C2BE	1E6F1B8D or 13077975 or E3463970 or A66D8E54
Bogus	BC71EFA6 or 6A4F3404 or 11BB4F33 or 68BD57D0	5729D417 or 8B777939 or 46C2AE75 or D9EC75C0
DartWayne	6CEB12E1 or 60E73C70 or 1894FE95 or BF6D55D7	FF4E7FD7 or 6816A9A7 or 50F465EF or 4EBFB2BB
DOMS-5000	8FDF112D or 3D250689 or F5AEF7A9 or 055729B1	C258E554 or BC659B1A or B09B2A95 or E68E0F09
EIN	1949D4DC or F8062704 or 9BEF4C18 or A57BCA44	27B27F65 or DFA33E6B or 79C6B51A or 20406A3F
FDCMIDOperation	BB4C0E19 or 32B02E0E or D38E681C or 70142A16	36AE91C2 or 3194FE15 or 426FA0D1 or 116523FB
Galileo	0899C0FF or A54331DD or 511E0FC0 or ECCB58A0	5F94BF6E or 4A963FBE or 6C21BD32 or E70DA80B
Gilbarco	22BF0D0A or 4701C938 or 17D9088B or FA7053B9	6C1C678C or 8E04FE55 or 0198DFD6 or 499C94BE

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GUIConsole.jar	59160D41 or B3CC2FB1 or D0E6C80E or B3F2B081	B4E63C7B or D2DD3557 or C43BAEE4 or C327C3AE
GUIPump.jar	9C3174D1 or FE5D33DE or 4D42F858 or A9AA882F	4360B8AD or BCBB9FFF or F3A6E5B6 or B2B221E6
IFSF	7B36F999 or A2A94829 or F18FCF56 or 2325407A	016A9247 or 6D6768C7 or 2A1F0A39 or E0FABA7
KoreaEnE	EC91D858 or 7B336FDD or D5AF651C or 02F4D97A	EB7EE0B3 or 51BDB0FF or F2998971 or 32B47EA2
Kraus	FD91A061 or 31813A4F or 56D69D1C or 2095A820	8D6A632F or 3092F214 or 26157A4C or DAC49F98
LarsenAndToubro	0557AC88 or DAC9912A or AA19D5F1 or 405D0348	28F15E60 or 6141E5CF or 52BA869C or A4035911
LectroCount	120D891A or 85330456 or 5CD84B8D or 10210FC3	A0D360FA or BE1F3EFF or 4751FD0D or 0D138F44
Ljungmans	0EE5B744 or 0B507A36 or 87CB28AA or 84D2E835	CDE54477 or 84E1C6E8 or EE13574E or 9B0C3F66
Logitron	CF32F39B or 929EF340 or B0A99EF8 or 62EB45A5	7F03B9D4 or E78AE8AE or 6533CC81 or 67C92535
MaserMT	161123B8 or 8AA0E130 or A73AA7D6 or DB4008BC	B1013A29 or 2839C3BB or D2225A48 or 6599E015
Midco	B020973E or 15CD9E8C or C2B91DAD or 67400E75	0AD948E1 or 66B7FEF9 or C116DB4B or FC59B5D9
NuovoPignone	FDB398CA or 7009CCE3 or 96C021F0 or AB2AD042	4B02978C or 412769C7 or 4F81906F or 1362288F
OrpakPIR	08BFEA0A or F17BCF25 or C0366075 or D3C4C71E	500C28C3 or 1BA42A6F or 887AE6A2 or 1F6FCB55
Prowalco	A8EDB59F or CB820134 or 0C2F2D40 or E19052A5	0555117C or AD150BD8 or 189BEBFF or 1DCAB931
SSF.FC.exe	87C239FA or 9A650CC6 or FF347967 or 65C789FD	081A1918 or 11D7B3C8 or 0E491675 or A5BD68F5
SSF.Router.Message.dll	FEBF3A3F or 4C5174A9 or FA33AC0A or 8D22596C	598252D5 or 55FBDFC2 or 92E1C43D or 4BC0DFFB
SSF.Spirit.Ticket.Module.exe	AB743923 or 1878757A or FCF2F632 or C941ADC2	A76141FE or D6B73AF1 or 97F255BB or C12167F6
SSF.Spirit.Ticket.Robot.exe	C07B0ACD or FBF27AB8 or 58461897 or 41321CC2	8AC9FE5F or 235C20ED or 0EFA8027 or 68E7CD44
SSF.Spirit.Watchdog.exe	ADB1B6E2 or 1417BE14 or 311533DB or B3D4AF1E	90E10864 or 4686E465 or 90CEB424 or 1711DDAA
TatsunoMono	7500ABC2 or 25A6A997 or 716025D9 or 8B6C5761	730725AE or F8ED46BF or F34529C3 or C351854A
TatsunoSunny	8C4FEBF1 or E37FFEDC or 38C5FB81 or 1C1DACAB	309A6D5F or 81AC9E66 or F589D9AE or 1CBF8F41
TeosisDCR	45F4AF84 or 0431BB20 or 7CC30AD6 or 8DF55345	B2982CE2 or D7D5B756 or 712E017E or 814C7FAB
Tokheim-US	F5358309 or 527A1DC7 or 50DCB9A3 or E94D4D67	8DE51BAE or DDBC4653 or 3399FE05 or F25CD1AD
Wayne	C4098A47 or 9F2113F9 or F5BD31C1 or 83D12725	BFCB82CF or 3D5272A0 or FD63E163 or 13A81993

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Soft seal list for SW modules running on external POS: "EU Fusion 6000"

Module Name	CRC
Wayne.Opos	64BE92AD

Soft seal list for SW modules running on external: "SINP POS":

Module Name	Revision	CRC
SinpMID.dll	1.0.0.19	E6C1

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
- Power control of fuel dispensers

2 Technical data

2.1 Rated operating conditions

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

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

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

2.2 Other operating conditions

Not applicable

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3 Interfaces and compatibility conditions

The SSD with the following interface boards and protocols as stated in the table below was tested/examined and found in compliance with WGs 8.8, 10.7 and 7.2.

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:

Communication with external POS:

SW protocol	Hardware (GRIB)
FDCPOS	LAN
IFSF	LAN

Communication with Outdoor Payment Terminal:

SW protocol	Hardware (GRIB)
DART	RS485 RS422
LJCL	RS422
FDCPOS/GTI	LAN
IFSF	LAN

Communication with Fuel Dispensers:

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

Installation:

- Shielded communication cable with screen connected in both ends.

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

- all volume and price indicating having the same scale interval as Fusion V2.

4 Requirements on production, putting into use and utilisation

4.1 Requirements on production

No special requirements identified.

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4.2 Requirements on putting into use

Functional test of system link and printer may be performed in the factory according to Wayne Manufacturing Test requirement specification.

System link

#	Test	Notes
1	System link test	Connect the serial link to the test system.

Printer

#	Test	Notes
1	Print test ticket	A ticket should be printed
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.

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 for Fusion FC including POS (except SINP POS)

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.

- Software for SINP POS

From the SINP NT-POS window chose Funzioni tab and then click on Bollo MID.

5.4 Calibration-/adjustment procedure

Not applicable

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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. It is also used for temporary storage (sales stacking) in the case when temporary storage isn't provided by the POS.

7 Labelling and inscriptions

7.1 Information to be borne by and to accompany the device

The marking plate/label mounted on the Fusion V2 hardware ("blue box") shall contain the following information:

- the name or trademark of the manufacturer
- the serial number of the Fusion V2 HW and year of manufacture
- the designation or type name
- the Evaluation Certificate number, **10 70 29**
- place for the verification sticker

(Information of the connected fuel dispensers is on the POS display.)

7.2 Conformity marking in accordance to MID article 17

This Evaluation Certificate is not an EU-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.

7.4 Evaluations carried out for this Evaluation Certificate

The evaluation under this certificate is recorded in Evaluation Report 4P03743-1 (referring to test and examinations in test report P904275A, P904275B, PX07420, 3P04149-1, 3P04150-1, 4P01649-1, 6P00230-1, 6P07571-1, P904275-01, 3P04149-01-1, 3P04150-01-1, 6P00230-01, 6P07571-01.

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A summary of the evaluation under this certificate is given below.

Description	+	-	Remarks
Relevant parts of the checklist OIML R117-1	*		P904275A, P904275B, PX07420 (functional test during disturbance tests), 3P04149-1, 3P04150-1, 4P01649-1, 6P00230-1 6P07571-1

Extension	Description	+	-	Remarks
Type P	Requirements on basic configuration	/	/	
Type U	Requirements on basic configuration	*		P904275-01, 3P04149-01-1, 3P04150-01-1, 6P00230-01 6P07571-01
Extension L	Requirements on data storage	*		P904275-01, 3P04149-01-1, 3P04150-01-1, 6P00230-01 6P07571-01
Extension T	Requirements on interfaces	*		P904275-01, 3P04149-01-1 3P04150-01-1, 6P00230-01 6P07571-01
Extension S	Requirements on software separation	*		P904275-01, 3P04149-01-1 3P04150-01-1, 6P00230-01 6P07571-01
Extension D	Requirements on software download	*		P904275-01, 3P04149-01-1 3P04150-01-1, 6P00230-01 6P07571-01
Extension I	Specific software requirements	/	/	

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