



Evaluation Certificate

Certificate for a part of a measuring system for LOTW
No. 10 70 29

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

Issued to

Wayne Fueling Systems Sweden AB
Hanögatan 10, SE-211 24 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.

Certificate no 10 70 29 edition 2. Date of issue: June 14, 2016

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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)

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 2nd, 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 and consists of 11 pages. All the plans, schematic diagrams and documentations are recorded under reference file 4P03743. The evaluation report 4P03743-1 has been issued in accordance with WELMEC Guide 8.8, Voluntary system of Modular Evaluation.

Borås June 14, 2016

SP Technical Research Institute of Sweden Certification

Lennart Aronsson
Product 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 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 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 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 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 Forecourt controller”)			X	X
Fusion Forecourt Controller and embedded GUI for EU Fusion 6000	X		X	X
Fusion Forecourt Controller and external Wincor Namos	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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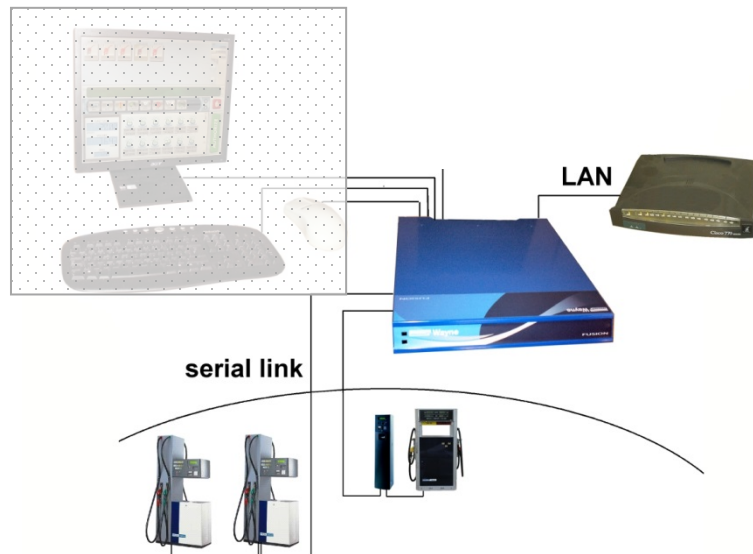


Figure 3: Typical configuration for Fusion forecourt system with embedded GUI for unmanned stations (“EU Fusion 6000 Forecourt controller”)

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.

Fusion forecourt system hardware:

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 ("EU Fusion 6000 Forecourt controller"):

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

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.

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

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Software specification according to WG 7.2:

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

Soft seal list for SW modules running on Fusion forecourt system hardware "EU Fusion 6000 Forecourt controller":

<u>Module Name</u>	<u>Module Unique ID</u>	<u>CRC</u>
Aspro Develco	6BA1455F or 105B3D49	D99E600E or 39F817C3
Autotank	845FBBD9 or EC1C44B3	00626E08 or 9D2B6DB2
Bennett-485	F96FCA65 or 9B817507	54DACED4 or B30E0846
Bennett-CL	C4F55B54 or 4C241D6B	1E6F1B8D or 13077975
Bogus	BC71EFA6 or 6A4F3404	5729D417 or 8B777939
DartWayne	6CEB12E1 or 60E73C70	FF4E7FD7 or 6816A9A7
DOMS-5000	8FDF112D or 3D250689	C258E554 or BC659B1A
EIN	1949D4DC or F8062704	27B27F65 or DFA33E6B
FDCMIDOperation	BB4C0E19 or 32B02E0E	36AE91C2 or 3194FE15
Galileo	0899C0FF or A54331DD	5F94BF6E or 4A963FBE
Gilbarco	22BF0D0A or 4701C938	6C1C678C or 8E04FE55
GUIConsole.jar	59160D41 or B3CC2FB1	B4E63C7B or D2DD3557
GUIPump.jar	9C3174D1 or FE5D33DE	4360B8AD or BCBB9FFF
IFSF	7B36F999 or A2A94829	016A9247 or 6D6768C7
KoreaEnE	EC91D858 or 7B336FDD	EB7EE0B3 or 51BDB0FF
Kraus	FD91A061 or 31813A4F	8D6A632F or 3092F214
LarsenAndToubro	0557AC88 or DAC9912A	28F15E60 or 6141E5CF
LectroCount	120D891A or 85330456	A0D360FA or BE1F3EFF
Ljungmans	0EE5B744 or 0B507A36	CDE54477 or 84E1C6E8
Logitron	CF32F39B or 929EF340	7F03B9D4 or E78AE8AE
MaserMT	161123B8 or 8AA0E130	B1013A29 or 2839C3BB
Midco	B020973E or 15CD9E8C	0AD948E1 or 66B7FEF9
NuovoPignone	FDB398CA or 7009CCE3	4B02978C or 412769C7
OrpakPIR	08BFEA0A or F17BCF25	500C28C3 or 1BA42A6F
Prowalco	A8EDB59F or CB820134	0555117C or AD150BD8
SSF.FC.exe	87C239FA or 9A650CC6	081A1918 or 11D7B3C8
SSF.Router.Message.dll	FEBF3A3F or 4C5174A9	598252D5 or 55FBDFC2
SSF.Spirit.Ticket.Module.exe	AB743923 or 1878757A	A76141FE or D6B73AF1
SSF.Spirit.Ticket.Robot.exe	C07B0ACD or FBF27AB8	8AC9FE5F or 235C20ED
SSF.Spirit.Watchdog.exe	ADB1B6E2 or 1417BE14	90E10864 or 4686E465
TatsunoMono	7500ABC2 or 25A6A997	730725AE or F8ED46BF
TatsunoSunny	8C4FEBF1 or E37FFEDC	309A6D5F or 81AC9E66
TeosisDCR	45F4AF84 or 0431BB20	B2982CE2 or D7D5B756
Tokheim-US	F5358309 or 527A1DC7	8DE51BAE or DDBC4653
Wayne	C4098A47 or 9F2113F9	BFCB82CF or 3D5272A0

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

<u>Module Name</u>	<u>CRC</u>
Wayne.Opos	64BE92AD

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

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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 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

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

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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, P904275-01, 3P04149-01-1, 3P04150-01-1, 6P00230-01).

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

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

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
Extension L	Requirements on data storage	*		P904275-01, 3P04149-01-1 3P04150-01-1, 6P00230-01
Extension T	Requirements on interfaces	*		P904275-01, 3P04149-01-1 3P04150-01-1, 6P00230-01
Extension S	Requirements on software separation	*		P904275-01, 3P04149-01-1 3P04150-01-1, 6P00230-01
Extension D	Requirements on software download	*		P904275-01, 3P04149-01-1 3P04150-01-1, 6P00230-01
Extension I	Specific software requirements	/	/	

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