Point of Sales system for fuel sales, “VYNAMIC™ FCx”

Issued to
Wincor-Nixdorf International GmbH
Heinz-Nixdorf-Ring 1, DE-33106 Paderborn, Germany

In respect of (part of instrument)
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 an interruptible measuring system for liquids other than water (LOTW) is a Point Of Sale (POS) terminal, a self service device for direct sales, attended pre-payment and post-payment including sale stacking (with DOMS PSS 5000). It includes a monitor for the seller and a customer display and/or a ticket printer.

Accuracy class: 0,5 or higher

In accordance with
- WELMEC Guide 10.10, 2019 “Guide on evaluation of Purely Digital Parts” (PDP) and

This Parts Certificate (PC) 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 Measuring Instruments Directive 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 Parts Certificate is free to use by manufacturers of complete measuring instruments.

Applicable essential requirements of MID 2014/32/EU
- MID, Annex I Essential requirements
- MID, Annex VII (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
Parts Certificate
Certificate for a part of a measuring system for LOTW
C900182

Further applied documents
- The Swedish Measuring Instruments Regulation, STAFS 2016:1
- The Swedish Regulations and Guidelines concerning Measuring Systems for the Continuous and Dynamic Measurement of Quantities other than Water, STAFS 2016:6
- RISE Certification Rules SPCR 181

Validity
Valid until 2030-08-24.

Miscellaneous
This is the first issue of the certificate.

The principal characteristics, approval conditions are set out in the appendix hereto, which forms part of the approval document. All the plans, schematic diagrams and documentations are recorded under reference file 9P06910. The evaluation report 9P06910-01-1 was issued in accordance with WELMEC Guide 8.8, Voluntary system of Modular Evaluation.

Martin Tillander
Kerstin Mattiasson

Certificate History

<table>
<thead>
<tr>
<th>Issue</th>
<th>Date</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2020-08-24</td>
<td>Certification of Point of Sales system for fuel sales, &quot;VYNAMIC™ FCx&quot;</td>
</tr>
</tbody>
</table>
0. Conditions

The use of this Parts Certificate is limited to:

Combination with other parts of a measuring system (e.g. fuel dispenser) under the following conditions:
- One of the communication protocols defined in this certificate is used
- The other parts of the measuring system having an EC/EU-type examination certificate, Evaluation Certificate or Parts Certificate covering compatibility with the communication protocol used or
- The other parts of the measuring system having a National Type approval covering compatibility with the communication protocol used or
- The other parts of the measuring system having an EC/EU-type examination certificate, Evaluation Certificate or Parts Certificate covering compatibility with DOMS PSS 5000 or
- The other parts of the measuring system having a National Type approval covering compatibility with DOMS PSS 5000

Other parties are free to use this PC.

The device must correspond with the following specifications:

1. Design of the device

1.1 Construction

Description
The Point of sale device (POS) is a part of a self service arrangement. It supports the following service mode and type of payment:

<table>
<thead>
<tr>
<th>VYNAMIC™ FCx</th>
<th>Attended post-payment</th>
<th>Attended pre-payment</th>
<th>Unattended delayed-payment</th>
<th>Unattended pre-payment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>

VYNAMIC™ FCx is a purely digital self-service device (SSD) for fuel dispensers. As such, VYNAMIC™ FCx handles legally relevant data originating from fuel dispensers. It can also be connected to LPG and CNG dispensers if the pumps / forecourt controller support this.

VYNAMIC™ FCx does not store legally relevant measurement data. Access to more than one fuel transaction buffer (sales stacking) is only granted when the forecourt controller (e.g. DOMS PSS 5000) or the fuel dispenser itself supports this.

In all configuration options, the system can be equipped with a DOMS PSS 5000 forecourt controller. The forecourt controller is connected to the VYNAMIC™ FCx Forecourt Device Control (FDC), which is the interface between the forecourt and the POS services.

The system can also work directly with IFSF pumps. In this case, no forecourt controller is present, and the pumps are controlled by VYNAMIC™ FCx FDC.

VYNAMIC™ FCx is an indoor Point-of-sale (POS) system designed to handle the sales operations of a service station, including fuel sales. It is a cloud solution with components installed locally, but can be operated completely on local hardware as well. The software architecture is a micro service based web application.
The Self Service System consists of
- the pump including all its components (not included in this Parts Certificate)
- Optional: A forecourt controller, DOMS PSS 5000
- one or more devices (server, PC, tablet, mobile device) to host software services:
  - VYNAMIC™ FCx Forecourt Device Services (FDC)
  - VYNAMIC™ FCx POS software services
- POS Web GUI as user interface for the cashier
- POS Device drivers
- POS printer to print tickets and/or customer display
- cashier display, separate or integrated device.

There are different installation options as foreseen for customer installations. FDC and the POS Device Drivers are always installed on hardware locally on the site. The most common installation is a local installation of the POS system. (Figure 2). A more complex installation is a server and PC cloud installation. (Figure 3). Other installations are possible. The measured values are transmitted between different modules of the installation.

The legally relevant software modules are bundled into a software service called MID service. An additional MID log contains entries about software identifiers and failed checks of legally relevant filling data. The MID service and the MID log are the legally relevant software parts. Both are always installed on local hardware on the site.

All displayed/printed data under metrological control are included into asterisks ("**") and are therefore clearly separated from non LR data.
Figure 2. Standard local installation with forecourt controller DOMS PSS 5000

Figure 3. Standard PC cloud installation
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.

<table>
<thead>
<tr>
<th>Part</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site Server</td>
<td>Wincor Nixdorf BEETLE/M-III or equivalent</td>
</tr>
<tr>
<td>Operating system</td>
<td>VMWare vSphere ESXI, Windows Embedded and Linux Embedded or later</td>
</tr>
<tr>
<td>Application software</td>
<td>VDynamic FCx version 8.x, or other version with equivalent functionality regarding applicable technical requirement according to WELMEC Guide 10.10</td>
</tr>
<tr>
<td>Docking Station</td>
<td>Wincor Nixdorf BEETLE /moPOS PDH or equivalent</td>
</tr>
<tr>
<td>Cashier display</td>
<td>AAVAmobile INARI10-WLAN-1 AAB-B or equivalent</td>
</tr>
<tr>
<td>Customer display (if this is primary indication for the benefit of the customer)*</td>
<td>Wincor Nixdorf BA63 USB or equivalent</td>
</tr>
<tr>
<td>Ticket printer (if this is primary indication for the benefit of the customer)*</td>
<td>Wincor Nixdorf TH230+ or equivalent, under the condition that the functionality of the checking facilities for power off, decoupling/no serial communication, end of paper, is the same</td>
</tr>
<tr>
<td>Forecourt Controller (optional)</td>
<td>DOMS PSS 5000 with Parts Certificate SC0257-15</td>
</tr>
<tr>
<td>LON adapter (for IFSF pumps only)</td>
<td>Gesytec GmbH Easylon VNI Interface USB or equivalent</td>
</tr>
</tbody>
</table>

*one of “Customer display” and “Ticket printer” is mandatory

Software specification according to Welmc Guide 7.2:

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

List of legally relevant software modules and “checksum”

<table>
<thead>
<tr>
<th>Name</th>
<th>Version</th>
<th>Checksum</th>
</tr>
</thead>
<tbody>
<tr>
<td>MID Service</td>
<td>8.0.20023.8581</td>
<td>3d738f60</td>
</tr>
</tbody>
</table>

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 chapter 1.1 and 1.2. The metrological software is identified by the “checksum”, which can be accessed according to chapter 5.3.
1.5 Integrated equipment and functions not subject to MID
The following equipment may be connected to VYNAMIC™ FCx (without change of this certificate):
- Keyboard
- Mouse
- Bar code scanner
- Cash drawer
- Office printer
- EFT terminal
- etc

2. Technical data
2.1 Rated operating conditions

Description
Point of sale device (POS), a purely digital self-service device (SSD) intended for use with fuel dispensers for motor vehicles, for direct sales to the public in an interruptible measuring system.

Device for attended pre-payment and post-payment including sale stacking (in DOMS PSS 5000 or in pump). It includes a monitor for the seller and a customer display and/or a ticket printer.

Measurement range
Scale interval, displayed/printed volume: same as dispenser, but not smaller than 0.01 l
Scale interval, displayed/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.

3. Interfaces and compatibility conditions
The SSD with the following interface protocols was examined and found in compliance with WGs 8.8, 10.10 and 7.2.

<table>
<thead>
<tr>
<th>Protocol</th>
<th>Connected to</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOMS POS Protocol</td>
<td>DOMS PSS 5000 forecourt controller</td>
</tr>
<tr>
<td>&quot;IFSF&quot; pump protocol</td>
<td>&quot;IFSF&quot; pumps</td>
</tr>
</tbody>
</table>

The POS may only be used in a measuring system with:
- all volume and price indicating and printing devices having the same scale interval as VYNAMIC™ FCx

The self-service arrangement shall be such that at least one primary indication for the benefit of the customer must be available at least up to the settlement of the transaction to enable the delivered quantity and the price to pay to be checked (OIML R 117-1:2019 3.9.1.7).

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

The following functional test shall be performed. It may either be performed in the factory, or after each VYNAMIC™ FCx installation on site:
1. Start POS system
2. Login as cashier
3. Check software versions and checksum according 5.3.

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 chapter 1.1 and 1.2.

- Software
The legally relevant software of VYNAMICTM FCx is identified by the checksum in chapter 1.2.

The POS GUI provides a button to display the software identification of the MID module, and another button to show the MID log. Starting in the cashier view, press the button for the control window.
The control window has a button “Check MID service” to display the software identification, and a button “MID log” to display the MID log.

On pressing the buttons, the respective information is displayed in a dialog box.

Note: the identification in the screenshot is an example only.
The MID log can be printed by pressing the “Print MID Log” button.

5.4 Calibration/-adjustment procedure
Not applicable.

6. Security measures

6.1 Sealing
The POS is not sealed.

6.2 Data logger
DOMS PSS 5000 or the fuel dispenser is used for sales stacking.

7. Labelling and inscriptions

7.1 Information to be borne by and to accompany the device
The marking plate/label mounted on the outside of the POS device / store server shall contain the following information:
- the name and address of the manufacturer
- the serial number of the POS (on site server type label) and year of manufacture
- the designation or type name
- the Parts Certificate number, C900182, of the POS
- place for identification of the connected fuel dispenser(s)
- place for the verification sticker

7.2 Conformity marking (ref: MID 2014/32/EU article 21)
This Parts Certificate is not an EU-type examination Certificate. Therefore the POS 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 Parts Certificate

The evaluation under this certificate is recorded in Evaluation Report 9P06910-01-1 (referring to test and examinations in test reports RISE 9P06910-03-1, 9P06910-03-2, 9P06910-01 and 9P06910-02).

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

<table>
<thead>
<tr>
<th>Description</th>
<th>Result</th>
<th>Report/remark/notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relevant parts of the checklist OIML R117-1</td>
<td>*</td>
<td>RISE report 9P06910-03-1, 9P06910-03-2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Welmeck 7.2</th>
<th>Description</th>
<th>Result</th>
<th>Report/remark/notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type P</td>
<td>Requirements on basic configuration</td>
<td>/</td>
<td>---</td>
</tr>
<tr>
<td>Type U</td>
<td>Requirements on basic configuration</td>
<td>*</td>
<td>RISE report 9P06910-01</td>
</tr>
<tr>
<td>Extension L</td>
<td>Requirements on data storage</td>
<td>/</td>
<td></td>
</tr>
<tr>
<td>Extension T</td>
<td>Requirements on interfaces</td>
<td>*</td>
<td>RISE report 9P06910-01</td>
</tr>
<tr>
<td>Extension S</td>
<td>Requirements on software separation</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>Extension D</td>
<td>Requirements on software download</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>Extension I</td>
<td>Specific software requirements</td>
<td>/</td>
<td>----</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Description</th>
<th>Result</th>
<th>Report/remark/notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk analysis according to MID 2014/32/EU</td>
<td>*</td>
<td>RISE report 9P06910-02</td>
</tr>
</tbody>
</table>

1) Requirement/type according to Welmeck Guide 7.2

* = Fulfils requirements / = Not applicable