

Outdoor Payment terminal (OPT) for cards, "SPINopt"

Issued to

Extendas Online Informatica B.V.

Institutenweg 28-30, NL-7521PK Enschede, The Netherlands

In respect of (part of instrument)

The SPINopt is an Outdoor Payment Terminal (OPT) for cards (connected to a DOMS PSS 5000 acting as forecourt controller), 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 LOTW (Liquids Other Than Water) is a self service device for direct sales, interruptible, unattended delayed payment, including a printer.

Accuracy class: 0,5 or higher

In accordance with

- WELMEC Guide 8.8, 2017 "General and Administrative Aspects of the Voluntary System of Modular Evaluation of Measuring instruments under the MID",
- WELMEC Guide 10.10, 2016 "Guide on evaluation of Purely Digital Parts" (PDP) for sales to the public" and
- WELMEC Guide 7.2, 2018 "Software Guide".

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

Certificate SC0080-19 | issue 2 | 2020-12-10

RISE Research Institutes of Sweden AB | Certification

Box 857, SE-50115 Borås, Sweden

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2P06740

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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

Originally issued: 2019-07-08

Expiry date: 2029-07-08

This certificate replaces earlier issues.

Miscellaneous

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 9P01662 and 2P06740. The evaluation report 9P01662-1 was issued in accordance with WELMEC Guide 8.8, Voluntary system of Modular Evaluation.

Martin Tillander

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Certificate History		
Issue 1	2019-07-08	Certification of "SPINopt", an Outdoor Payment Terminal
Issue 2	2020-12-10	Adding new checksums and application version (minor SW changes; more logging, syntactical changes, supporting "kg"). Adding text about CNG and EV under chapter 1.5 (not subject to MID).

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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:

- DOMS PSS 5000 (Parts Certificate SC0257-15 issued by SP/RISE) is used as forecourt controller
- 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
- 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 Payment Terminal is a part of a self service arrangement. It supports the following service mode and type of payment:

	Attended post-payment	Attended pre-payment	Unattended delayed-payment	Unattended pre-payment
SPINopt	No	No	Yes	No

The outdoor payment terminal (OPT) is a self service device for unattended delayed payment (card), direct sales, in an interruptible measuring system. It includes a printer and utilise DOMS PSS 5000 as a forecourt controller and memory device for delayed payment.

SPINopt is used with fuel dispensers, and is handling legally relevant data from the dispenser. There is no direct communication between the OPT and the fuel dispenser. In between there is a forecourt controller; DOMS PSS 5000. Several SPINOPT may be connected to one DOMS PSS 5000.

SPINopt comes in two hardware configurations; OPT or CRIND, see figure 1-2.

As OPT SPINopt is physically separated from the fuel dispenser and has its own housing. Two SPINopt may be located in a single hardware enclosure, featuring two touch screen interfaces on opposite sides of the enclosure.

In the CRIND configuration, SPINopt hardware and software are integrated in the fuel dispensers hardware enclosure. The SPINopt will only interact with the specific fuel dispenser it belongs to, realizing a one-to-one mapping between the SPINopt and the dispenser. The SPINopt is not connected to the fuel dispenser directly; the connection is always realized through the PSS 5000 forecourt controller.

In addition to the OPT and CRIND hardware configurations described above, SPINopt can be implemented with several network topologies, depending on the hardware configuration and other devices available on the forecourt. The main categories of network topologies are standalone and hierarchical star topology, see figure 3-5.



Figure 1: SPINopt



Figure 2: SPINcrind

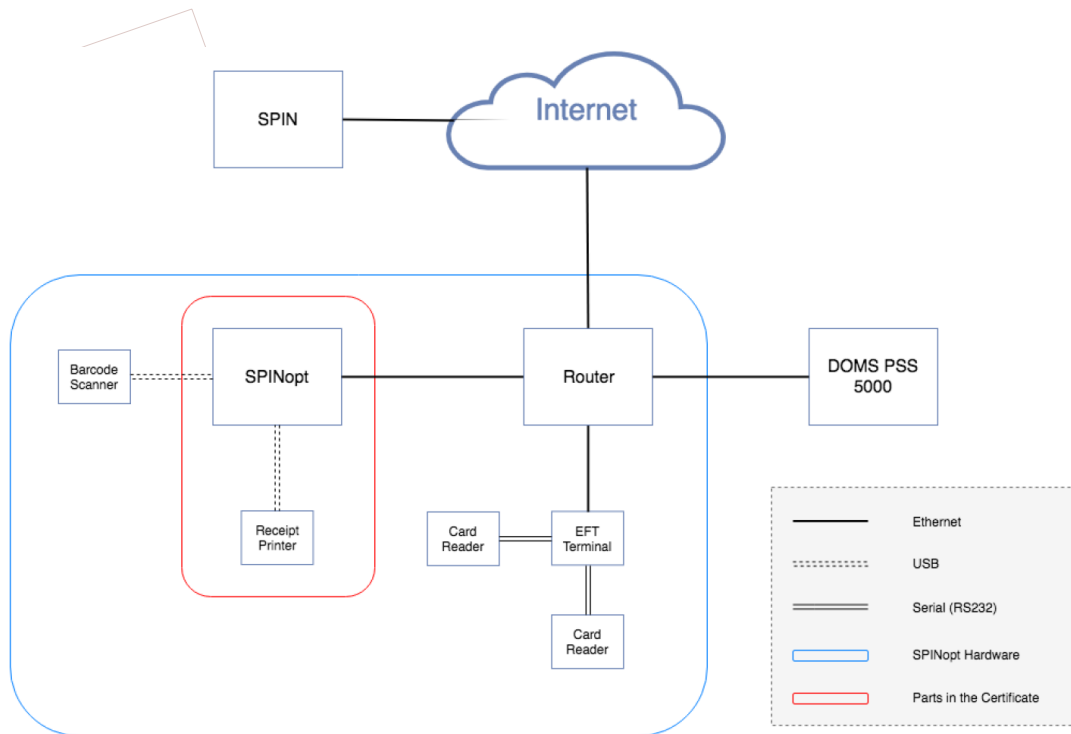


Figure 3: Schematic overview of SPINopt, peripherals and communication technologies in use in the standalone network configuration. The parts in the certificate are shown within the red box. The overview above is the simplest configuration of SPINopt, featuring a single SPINopt and no additional routers nor POS systems.

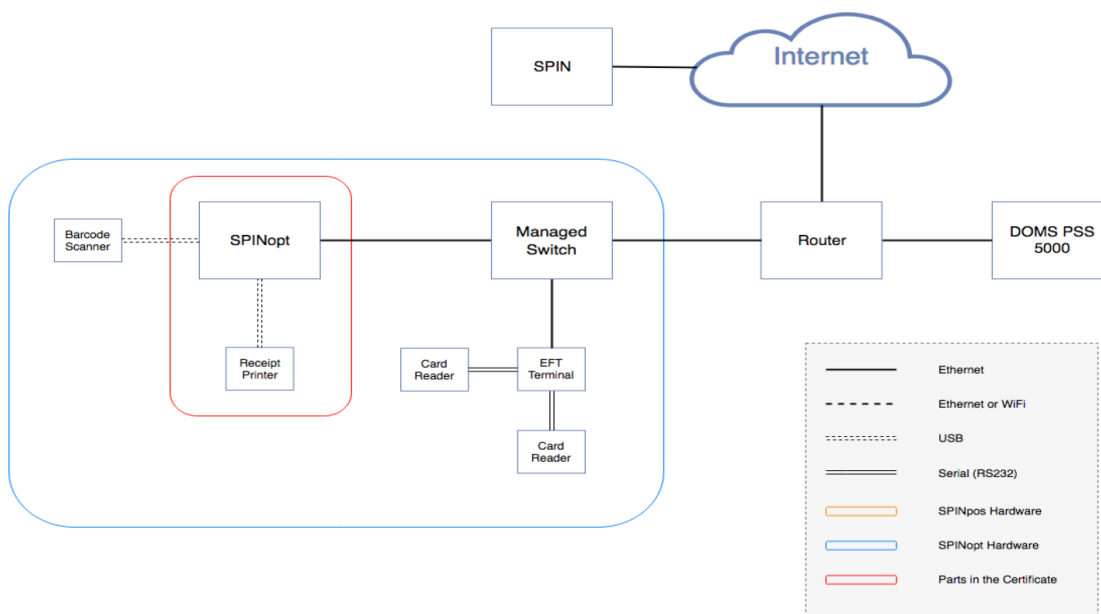


Figure 4: Schematic overview of SPINopt, peripherals and communication technologies in use in the most basic hierarchical star topology. The parts in this certificate are shown within the red box.

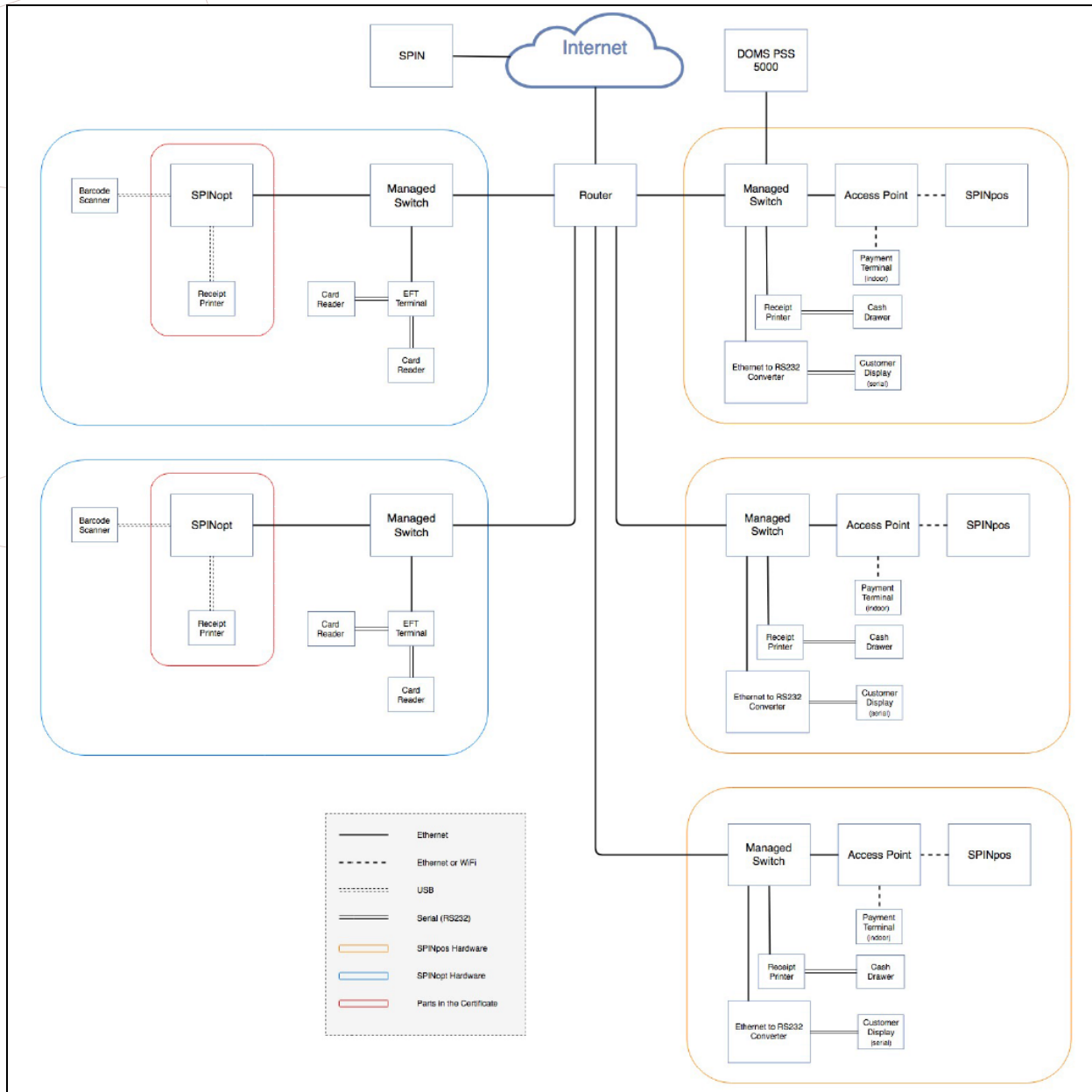


Figure 5: Schematic overview of several SPINopt and SPINpos systems, peripherals and communication technologies in use in the hierarchical star topology. The parts in this certificate are shown within the red box. The overview above shows a more extensive configuration of SPINopt, featuring two SPINopt systems and three SPINpos systems all connected to a single router.

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.

Part	Description
Computing Device	Single Board Computer (SBC) IB898 or equivalent
Operating System	Windows 10 IoT Enterprise 2019 Long Term Servicing Branch (LTSC) version 1859
Application Software	SPINopt v1.0.41.0 or other version with equivalent functionality regarding applicable technical requirement according to WELMEC Guide 10.10
Receipt Printer	Custom model TGH2460H or equivalent with CE-marking, under the condition that the functionality of the checking facilities for power off, decoupling/no serial communication, end of paper, is the same
Forecourt Controller	DOMS PSS 5000 with parts certificate SC0257-15, including CPB50x and CPB539

Software specification according to Welmec Guide 7.2:

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

**DOMS PSS5000 is used as memory device (OIML R117-1:2007, 3.5)*

List of legally relevant software modules and “checksum”

Name	Arch.	Version	OPT Appl. Version	Module Version Identifier (MVID)
ExtendAs.XLM.dll	x86_64	1.2.1.0	1.0.41.0	61abc31b-3edc-4d1a-9c86-0164ff25d350
			1.1.16.0	a3d5d56a-4853-4733-bc56-b4f7cf55baa4
		1.2.3.0	1.1.17.0	
			1.1.18.0	6e8c70bd-2162-4a74-8a0b-e6f83a055696
			1.1.21.0	fef6c28b-3709-4b64-9b73-aea98cadedc8
			1.1.22.0	aeb0cb28-5b21-4047-83d9-eeab4350b178
ExtendAs.SPINoptValidate.dll	x86_64	1.2.1.0	1.0.41.0	0f35495a-45e4-4e50-926a-436ed3c7c1e2
			1.1.16.0	d26111b6-8fb4-4c25-a0ff-aa995aea531f
		1.2.3.0	1.1.17.0	
			1.1.18.0	609fcbca-0271-47c9-8246-d200a22bc7b1
			1.1.21.0	5e236204-8569-4c45-ac53-586336bde122
			1.1.22.0	a884a984-8564-423b-9ca3-0faa54ff2a24

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

Handling CNG and Electric Vehicle charging transactions (not evaluated). Such information on the receipt must not be confused with a "MID transaction".

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

- Router
- (Managed) switch
- EFT terminal (PIN pad)
- Card reader
- Barcode scanner (optional)
- Display

2. Technical data

2.1 Rated operating conditions

Description

Payment terminal device for cards, intended for use with fuel dispensers for motor vehicles. Self service device for direct sales, interruptible, unattended delayed payment, including a printer.

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.

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.

- "Doms POS Protocol" (DPP) is used on top of TCP/IP for communication between the SPINopt and the Doms PSS 5000 forecourt controller.
- "Epson Standard Code for Printers (ECS/POS)" is used for communication between the SPINopt and the receipt printer.

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

- all volume and price indicating and printing devices having the same scale interval as SPINopt

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 tests are performed in the factory

- 1) Start the SPINopt hardware.
- 2) Wait for the SPINopt screen that indicates a card can be inserted.
- 3) Tap the top bar.
- 4) Verify legally relevant software was initialized correctly by ensuring it shows the latest version in addition to the marking: (Valid).

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 SPINopt is identified by the names Extendas.XLM.dll and Extendas.SPINoptValidate.dll. The software versions and the MVIDs can be presented on command by tapping the top area of the graphical user interface.

5.4 Calibration-/adjustment procedure

Not applicable.

6. Security measures

6.1 Sealing

The payment terminal is not sealed.

6.2 Data logger

DOMS PSS 5000 is used as memory device for delayed payment.

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 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 Parts Certificate number, **SC0080-19**, of the payment terminal
- place for identification of the connected fuel dispenser(s)
- place for the verification sticker

7.2 Conformity marking (ref: MID 2014/32/EU article 19)

This Parts Certificate is not an EU-type examination Certificate. Therefore the payment terminal SPINopt **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 9P01662-1 (referring to test and examinations in test reports RISE 9P01342- 1 and 9P01342- 01).

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

Description	Result	Report/remark/notes
Relevant parts of the checklist OIML R117-1	*	RISE report 9P01342-1

Welmec 7.2 ¹⁾	Description	Result	Report/remark/notes
Type P	Requirements on basic configuration	/	---
Type U	Requirements on basic configuration	*	RISE report 9P01342-01
Extension L	Requirements on data storage	*	RISE report 9P01342-01
Extension T	Requirements on interfaces	*	
Extension S	Requirements on software separation	*	
Extension D	Requirements on software download	*	
Extension I	Specific software requirements	/	---

¹⁾ Requirement/type according to Welmec Guide 7.2

* = Fulfils requirements / = Not applicable