

## Forecourt controller, PSS 5000

### Issued to

Doms ApS, Formervangen 28, DK-2800 Glostrup, Denmark.

### In respect of (part of instrument)

Forecourt controller and memory device, a purely digital self-service device (SSD) intended for use with fuel dispensers for motor vehicles and point of sales systems.

### 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, attended pre-payment and post-payment including sale stacking, unattended delayed payment and pre-payment. It may include a memory device (for LAM 1.xx).

Accuracy class 0,5 or higher

### 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 Parts 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 Parts Certificate is free to use by manufacturers of complete measuring instruments.

### Applicable essential requirements according to 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)

### Harmonised standards and normative documents used

Applicable parts of the following normative documents referred to in the Official Journal of the European Union 2011/C 33/01:

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

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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

Valid until March 31, 2025.

## Miscellaneous

This certificate is an extended issue and replaces earlier issues. The first version of this certificate was issued 2015-03-31.

Earlier issues are issued by SP, who during 2017 has changed name to RISE, but the accreditation and notification remain the same.

*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 files 5P00126, 5P07853 and 7P05466. The evaluation report 5P00126-1 has been issued in accordance with WELMEC Guide 8.8, Voluntary system of Modular Evaluation.*

## RISE Research Institutes of Sweden

Martin Tillander

Susanne Hansson

## 0 Conditions

The use of this Parts Certificate is limited to:

Combination with other parts of a measuring system (e.g. fuel dispenser and POS) 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-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

Other parties are free to use this PC.

The device must correspond with the following specifications:

## 1 Design of the device

### 1.1 Construction

#### Forecourt controller description

PSS 5000 is a part of a self service arrangement. PSS 5000 can support external POS or OPT systems running the following service mode and type of payment:

	<b>Attended post-payment</b>	<b>Attended pre-payment</b>	<b>Unattended delayed-payment</b>	<b>Unattended pre-payment</b>
Included	yes	yes	yes	yes

The forecourt controller is a self service device for direct sales, in an interruptible measuring system. It includes a memory device, also used for sales stacking (see 1.2 for details of which LAM that supports this).

The forecourt controller is connected to a Point of Sales (POS/OPT) system for handling authorization and settling of transactions from fuel dispensers. It also handles authorization for a pre-set volume/price, sales stacking and stores transaction for long term storage (see 1.2 for details of which LAM that supports this). Transaction data to the POS is protected by an authentication code and a checksum. The POS has to check that the authentication code and checksum for the transaction is valid before further processing for payment, including printing a receipt.

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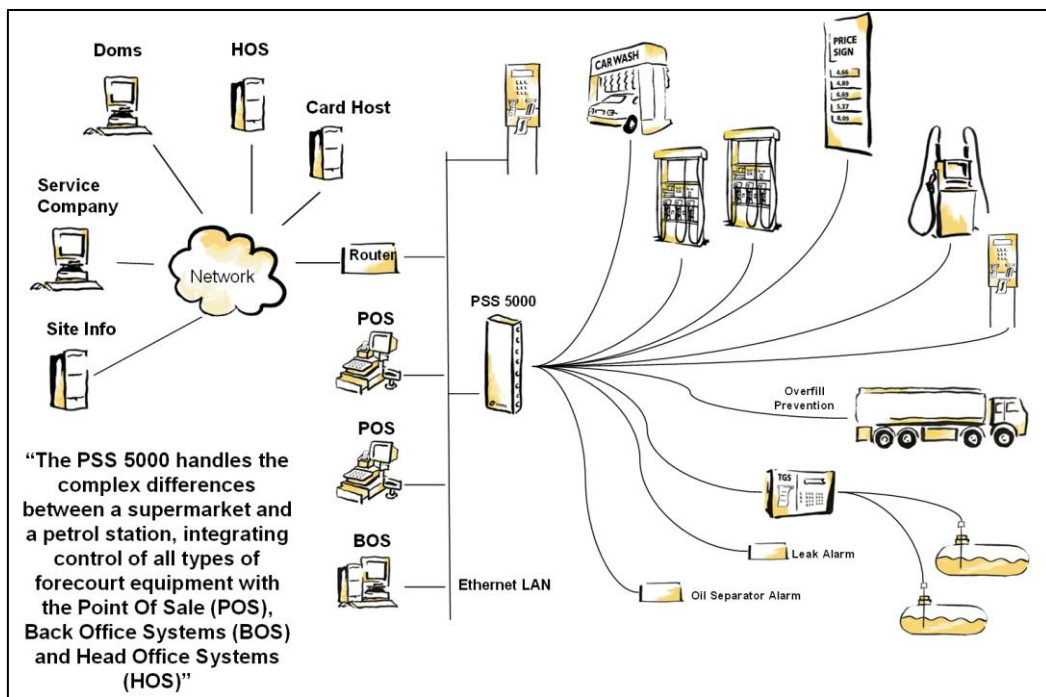
The PSS 5000 system is a modular system with the following main components.

- a Cabinet (Standard or Compact) with power supply
- a CPU board with either 8 or 4 serial ports, an Ethernet port and an optional LON port
- a number of Hardware Interface Modules (HIM), which convert the electrical signal between the serial ports and the devices. Many such modules exist for interfacing to various forecourt devices, which often have their own proprietary electrical interface.
- Cables for connecting the Hardware Interface Modules to the ports on the CPU board.

A Base System comprises a Cabinet, CPU board and PSU. To this a number of HIMs, which match the external devices, are added to complete the Forecourt Controller.

The PSS 5000 is a system component dedicated to control forecourt operation and provide data flow between the forecourt devices (primarily the pumps) and the Point Of Sale (POS) System or Outdoor Payment Terminals (OPTs) using a POS protocol. POS terminal and OPTs are isolated from communication with the forecourt equipment (e.g. the pumps).

The Forecourt Controller transports data (prices and sales/preset limits) from the POS systems or OPTs to the pumps, and sales data (transactions) from the pumps in the other direction. During the operation, the data is temporarily stored in the Forecourt Controller, but the controller does not participate in the measuring process, which is handled solemnly by the pumps.



Picture: Description of Measuring System with PSS 5000

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### Attended Self-Service

For attended sale, the POS system provides an operator interface, which allows an operator to monitor the status of the pumps and control authorization and transaction processing. It is the responsibility of the Forecourt Controller to store and deliver the transactions to the POS. PSS also provides a short term storage and readout of the recent transactions on the PSS Local Service Panel and a PSS Web Page. If the PSS is informed that the "primary indicator" in the POS is not working, the PSS will not store transactions. So, transactions must be paid and cleared before a new transaction can be started on a specific pump.

### Unattended Self Service

For unattended transactions, the authorization and transaction process is performed automatically by the OPT. Besides the responsibility to ensure safe transport of transaction data to the transaction processing device as for attended transactions, the PSS 5000 Forecourt Controller can have the possibility to maintain a transaction log for the unattended transactions (long term storage, for LAM 1.xx). The PSS 5000 can be equipped with a separate flash memory module for storing this transaction log data over a certain period of time. This log can be read via the PSS Local Service Panel and a PSS Web Page.



PSS 5000 Standard (with CPB509)

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## 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.

Main computer	<p>Doms CPB 505 (4 serial ports) or          Doms CPB 505-2 (4 serial ports) or          Doms CPB 508 (8 serial ports) or          Doms CPB 509 (8 serial ports) or          Doms CPB 539 (8 serial ports)</p>
Operating system	<p>CPB50x: Proprietary and included in Application and Boot          CPB539: Linux</p>
BOOT and Manager software	<p>For CPB50x:          499-03-1.00 or 499-04-1.00 or later version for LAM vers 1xx          499-03-1.15 or 499-04-1.06 or later version for LAM vers 2xx</p> <p>For CPB539:          469-01-1.00 or later version for LAM version 1xx and 2xx</p> <p><b>Board specific</b> start-up software with LAM and Application upload functionality (including non-erasable upload log) and LAM specific interface routines</p>
LAM (Legal Authority Module)	<p><b>Country specific</b> module with legally relevant routines and parameters for BOOT and Application software.</p>
Application software	<p><b>Customer specific</b> software such as 410-35-1.41 supporting long term storage (if covered by specific LAM version) or 411-38-1.40 with sales stacking (if covered by specific LAM version) or other versions with equivalent functionality regarding applicable technical requirement according to WELMEC Guide 10.7 Annex A</p>
Hardware Interface Module, HIM	<p>Doms DSBxxx or DMBxxx</p>
Cabinet	<p>PSS 5000 Standard or PSS 5000 Compact</p>

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### Software specification according to WG 7.2:

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

### List of legally relevant software modules

#### LAM Version 1xx for CPB50x

SW name and country	Short term storage	Long term storage	Checksum	MD5
Austria 498-14-1.02	Yes	No	B707	8EF388A5B1E423F5975EB565BAB5AD74
France 498-10-1.02	No	Yes	DCDE	FC5950DCCC9FA82C5F5CBC9A6DF4ACFF
France 498-10-1.03	No	Yes	D045	0ac05fa06bde74b5db0519a90a2015a
France 498-10-1.50	No	Yes	669C	d2171acaa83ef3faea5b8dd9b3a3dcfa
France 498-10-1.04	No	Yes	A143	d47eabc19b60aa29ecafbe033a881e72
Germany 498-07-1.02	Yes	No	0C1B	8D0B0641EC9D91BE39167E838E227DB9
Italy 498-13-1.50	Yes	No	B87F	482B5533E8D05B5281592BBDB3D6A18B
Netherlands 498-08-1.01	Yes	No	2F62	6D8F48D1094EAA804C42BF8E98A7EA29
Switzerland 498-15-1.01	No	Yes	B5A1	2317433E6F0B3D058F5C4E00305B1DCA
UK 498-06-1.01	Yes	No	084C	F893D5C2106FB0C0E13E173A2D6F57A7

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LAM version 2xx for CPB50x

Country	SW name	Short term storage	Long term storage	Checksum	MD5
Austria	498-14-2.00	Yes	No	6F00	28F0462B7659637AE3B39E85D31DF748
Austria	498-14-2.01	Yes	No	0D61	5A39F3A448EAE2378A34EF6B317BD195
Austria	498-14-2.02	Yes	No	C91B	FEDB3E4D0F40AAB18C7F130A07267483
Belgium	498-09-2.00	Yes	No	0D2F	6DB2BB1EAEA326DCFD64189C9D84E9CB
Belgium	498-09-2.01	Yes	No	C8E9	073980C459195F39F190C2AD29DE9D1F
Bosnia and Herzegovina	498-45-2.00	Yes	No	FCF8	DDD35998B9980E289C4D210DC4679F34
Bosnia and Herzegovina	498-45-2.01	Yes	No	CAB4	328398A5C580D13082C1F7E653602020
Bulgaria	498-24-2.00	Yes	No	0D7C	FB4FF40395CA9E67A6E918863A7BF237
Bulgaria	498-24-2.01	Yes	No	C936	CA61B61E53EADB04F2176DC617EB1D8
Croatia	498-19-2.00	Yes	No	FD22	6CDC1EE65EAEF3E16ABC9722A9DA5340
Croatia	498-19-2.01	Yes	No	CADE	4078E928B20EF4CA3706307DC2FA59DB
Cyprus	498-33-2.00	Yes	No	0CF0	B81546561996C2DEBAB55FFE8580E964
Cyprus	498-33-2.01	Yes	No	C8AA	621B41DA0A4DEB1DCCAE72C4367D94A3
Czech Rep	498-23-2.00	Yes	No	FC9B	688F36D996ACB5375FC0F18E60B38121
Czech Rep	498-23-2.01	Yes	No	CA57	55F0AE7CFC2C16490787529B126634A7
Denmark	498-01-2.00	Yes	No	FCA7	A495D1B58862810291DB3A5B59F2AED4
Denmark	498-01-2.01	Yes	No	CA63	F7423E36E4ACFE183D710C0C64A4FEA
Estonia	498-30-2.00	Yes	No	0D35	E604CD960B9F82FDCD83A2A7288204BA
Estonia	498-30-2.01	Yes	No	C8EF	0F812EBC522E6F2CD141C834DB7FD00B
Finland	498-04-2.00	Yes	No	0C8F	82060A091A5DE9B02E8DFF971EFBE83C
France	498-10-2.00	Yes	No	F11C	C5FEC53486BFD6B0C2B7A288E8ECC2CB
France	498-10-2.01	Yes	No	CEFC	4CAA7EF19F62C7477F6AF32CF9B9B147
Germany	498-07-2.00	Yes	No	6F0B	589D03623C9D56A5432EF7490FDC94B8
Germany	498-07-2.01	Yes	No	0D6C	A126EF89F08369EBF6C5B0637D9E7B5E
Germany	498-07-2.02	Yes	No	C926	225E3DE65F70E151F692FFCCA129ABA4
Greece	498-16-2.00	Yes	No	0D26	BC47C355B60F3FC1788905AA52E9F17B
Greece	498-16-2.01	Yes	No	C8E0	622A745CC9444F175C21FA6F6D883263
Hungary	498-17-2.00	Yes	No	0D23	8B17990270789984D3FE11C8C27BB5A3
Hungary	498-17-2.01	Yes	No	C8DD	DAF76E9C36664A91101D2B96E0FAC0DD
Iceland	498-05-2.00	Yes	No	FC4A	7ACE985CA61261BC5DE7923D148FA98A
Iceland	498-05-2.01	Yes	No	CA06	7F69C869D32ABB1C3666A09E03F48FBA
Ireland	498-35-2.00	Yes	No	0CCC	1C41F56A6521574FDAEF3BB75BDC93EA
Ireland	498-35-2.01	Yes	No	C886	2B80F3659022EB5317AD1FB4F6ECC753
Italy	498-13-2.00	Yes	No	0D61	9825CF0D2B6C28A05DEE45509F9E9BC7
Italy	498-13-2.01	Yes	No	C91B	BDCCCE0A9D3749B3670B29415C3EDF66
Latvia	498-31-2.00	Yes	No	0D78	8FFC1ED6CE267FB8E1FA8AC50546BFEC
Latvia	498-31-2.01	Yes	No	C932	0493257D0EACEF9FDAC63EB0C7CB9041
Lithuania	498-32-2.00	Yes	No	0D6D	1395CB8826184728C953BEC4BFA4DCA9
Lithuania	498-32-2.01	Yes	No	C927	25BDD3DCF1504DFDD5F45BCCF321C68
Luxemburg	498-83-2.00	Yes	No	6FDB	55EC04940DED2E9FEE19FFB36C6A5BD7
Luxemburg	498-83-2.01	Yes	No	0D37	E4A2EA163EE9EE2733F032A48841B3E6
Luxemburg	498-83-2.02	Yes	No	C8F1	12FA3B51363179A0DA72B659F7CAE4F8

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Macedonia	498-67-2.00	Yes	No	ODAA	F45EC823498DED2A91AA0800469C7837
Macedonia	498-67-2.01	Yes	No	C964	1171EBF2B11F6D7440198333695C8D2F
Netherlands	498-08-2.00	Yes	No	6ECE	DC5A4A6C3FD4DFB0562605ABCCF2E274
Netherlands	498-08-2.01	Yes	No	OD2F	B6D136BA16E08D774C7EF81DC2A31713
Netherlands	498-08-2.02	Yes	No	C8E9	898185DE7B504B240B988F0FE5E46B83
Norway	498-02-2.00	Yes	No	FD18	B7A53D07BC6F4C709F78E0C5F271F04A
Norway	498-02-2.01	Yes	No	CAD4	C8CB56BE984D322F360F0925C4EE0846
Poland	498-25-2.00	Yes	No	EB1F	59FC0291FEE1BA002FA0D6BA6001409F
Poland	498-25-2.01	Yes	No	D1EA	3F8DD9C38A33B93C5C08112655EECC5E
Portugal	498-12-2.00	Yes	No	OCD9	9566B8BC51D5A3344B83B8DF9AAB2C10
Portugal	498-12-2.01	Yes	No	C893	C864A1D3B398000A877334E976BF1CA3
Romania	498-20-2.00	Yes	No	OD98	B3DEC5F9B456C74DBA625BD468E20DF0
Romania	498-20-2.01	Yes	No	C952	3B0E0ED4C2945AC4528072AE24B59B85
Serbia and Montenegro	498-44-2.00	Yes	No	FD47	3263AB845633ECAF8A808B6915347F67
Serbia and Montenegro	498-44-2.01	Yes	No	CB03	3680B4E5C413AA9E88E1C271E2D248A5
Slovakia	498-21-2.00	Yes	No	OD15	C3FAC2DAB8B8537C8F3BB90C22C625A0
Slovakia	498-21-2.01	Yes	No	C8CF	166A120184F0C03588ABD5A41CFB83BB
Slovenia	498-43-2.00	Yes	No	ODD4	EEA98F3BFE35C0D636F0F15F0A5B0BFF
Slovenia	498-43-2.01	Yes	No	C98E	4BF955995804FB4814B8F303E7FC873A
Spain	498-11-2.00	Yes	No	OD3F	E16AE5A78726FC4634412B46850353D5
Spain	498-11-2.01	Yes	No	CEC2	48A98FC62AF30EAAD5733A7E069E1DD2
Spain	498-11-2.02	Yes	No	C8FA	88E6B964035B70553629462C99B06924
Sweden	498-03-2.00	Yes	No	FD19	8753524FC9F245A31B1B2BF1F3CD8CC7
Sweden	498-03-2.01	Yes	No	CAD5	882B0BF1957D4DB4F25CD105EAC30EE6
Switzerland	498-15-2.00	Yes	No	7030	168B818A60042F86FD79D9B10776E700
Switzerland	498-15-2.01	Yes	No	FC98	9F872DB60556AA5B8A9004C39BE0B0DC
Switzerland	498-15-2.02	Yes	No	CA54	C2F2521FE1C1648FCDAD1D4C3C950313
Turkey	498-18-2.00	Yes	No	OE1F	F66364BCCE32B86FB1A76B0843956AA0
Turkey	498-18-2.01	Yes	No	C9D9	B63F91DA9E5D3C8D30CF35CE927745B3
UK	498-06-2.00	Yes	No	FBD5	B6E6F17650EEF52A1C254F627519F278
UK	498-06-2.01	Yes	No	C991	131587F1D89C183A8B245FFB9129D373

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### LAM Version 1xx for CPB539

Country	SW name	Short term storage	Long term storage	Checksum	MD5
Austria	468-14-1.00	Yes	No	A06F	A06FAC25C074D961E39D820C0BF27C0B
Austria	468-14-1.01	Yes	No	870D	5B0D484861C2E7209770C67228EB7401
France	468-10-1-00	No	Yes	0B3D	353E519AA12D01133C4DA3F9CF89B589
France	468-10-1-01	No	Yes	7A4A	0BC52300D5A6DBEF68A248428716B3B2
France	468-10-1-02	No	Yes	3F7A	F345E14B9DC5D163C441E580618095AE
Germany	468-07-1.00	Yes	No	350D	F63C648BBD3FAEACDD617D8A1A4F69FF
Germany	468-07-1.01	Yes	No	EE13	253CF86383F616DFF3AE2F58AA83C950
Netherlands	468-08-1.00	Yes	No	DD2F	C084CE44ABA98612A6C1703B3546E2AA
Netherlands	468-08-1.01	Yes	No	639E	653503B8B39A44BDCA680A8E6C9E6B31
Switzerland	468-15-1.00	No	Yes	A41F	09F6F71C06CB9CDD4E0D6FC2ACAA56DD
Switzerland	468-15-1.01	No	Yes	B2E0	FD9CDAEF5E046AD4C562A295BE4C9938
Switzerland	468-15-1.02	No	Yes	C4BA	8F18ACEB0AA0C04272012E9C2524E850
UK	468-06-1.00	Yes	No	69A4	3038D953F30627DB6D56E686C6D92AEB
UK	468-06-1.01	Yes	No	75AA	A5ABC540C2376D36C840BDE4B3788184

### LAM version 2xx for CPB539

Country	SW name	Short term storage	Long term storage	Checksum	MD5
Austria	468-14-2.00	Yes	No	1BE5	C6CFA382AB2345D5CD25C5166E860800
Austria	468-14-2.01	Yes	No	F28B	4DF34A6FB6477ED88EE9FD6FC51B77AE
Austria	468-14-2.02	Yes	No	37D5	DFE37019EA2370658C3F9A4FB21A99B0
Belgium	468-09-2.00	Yes	No	801A	6FD3527F3956550E15B12532C078C756
Belgium	468-09-2.01	Yes	No	D92A	8B7478003318A01D8C60ADA1A4A55275
Belgium	468-09-2.02	Yes	No	9FD4	40137EAEFA5FBCE960034D26FB7B8074
Bosnia and Herzegovina	468-45-2.00	Yes	No	E07A	88AF4AAD63C42A46E0D4A367AA57848A
Bosnia and Herzegovina	468-45-2.01	Yes	No	8BBE	E8CEF22EAB11BFB75DF8F77C14603CE0
Bosnia and Herzegovina	468-45-2.02	Yes	No	106C	9F6D8EB231C4D09191B8AB5DAB8E33B4
Bulgaria	468-24-2.00	Yes	No	BECD	929F6EEBB820884AB6CF33FBDD71914C
Bulgaria	468-24-2.01	Yes	No	FE50	5F0573EFDEDEDAD61144D1145A36B53F30
Bulgaria	468-24-2.02	Yes	No	2DAA	B5C2387EC22287D3CB04F50A10866D4
Croatia	468-19-2.00	Yes	No	58E6	385A5BCB2F0BBB6EBA41C6158AA0AAF1
Croatia	468-19-2.01	Yes	No	1B8D	4556D383ECC7E9B4FC758EBDF0758220
Croatia	468-19-2.02	Yes	No	BFAF	5153EE8CE7F08525A7068E7836BFAE9F
Cyprus	468-33-2.00	Yes	No	6C06	D4E7C82DBC91A4BCC15A204C10485DE5
Cyprus	468-33-2.01	Yes	No	EBC2	A2471C87B33109E15E135D8F4B928122
Cyprus	468-33-2.02	Yes	No	13AB	C4A7676E5C8CF468B269A224FDBFD3B4
Czech Rep	468-23-2.00	Yes	No	521F	AEEF17EB60C7C9F5C736AFD90518A765
Czech Rep	468-23-2.01	Yes	No	4374	AE7D824D1B3E8513EAE680C29FEE2FE
Czech Rep	468-23-2.02	Yes	No	98E8	DAEE4A8387AC8C38297B5166785FBE55
Denmark	468-01-2.00	Yes	No	1B4F	547EEB4CCD0C00ED9A2122E911AEC8FF
Denmark	468-01-2.01	Yes	No	7155	011C8A5BA1FF0C043501D5737396CC5E
Estonia	468-30-2.00	Yes	No	DC7D	3AB442E99A24DE651545DF2C095E70A8
Estonia	468-30-2.01	Yes	No	F5DA	564B52A3323940114F33E6C748823528
Estonia	468-30-2.02	Yes	No	8940	10F8EA76251BF5E4718F6504472197E7

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Finland	468-04-2.00	Yes	No	6646	A1B6685D5DA8BDEC28429F9329FDCE86
Finland	468-04-2.01	Yes	No	78A4	5F91BBA61A1F2F2F764D655FF31F2FD0
Finland	468-04-2.02	Yes	No	C9B9	6793C593A5F203FDCAC7F55CBCD2ED40
France	468-10-2.00	Yes	No	F648	6794EB91201C218B83073875C5380679
France	468-10-2.01	Yes	No	52A8	9155411EC95EB92313F37A0688271147
France	468-10-2.02	Yes	No	52C8	2FECFA0D824FDBD84A595F74397267EA
Germany	468-07-2.00	Yes	No	BC85	A8A83DD5DA28EB8AC1405EC336B7BBFE
Germany	468-07-2.01	Yes	No	874D	ED328186ADB21272B99AA4AC25EC9C6E
Germany	468-07-2.02	Yes	No	8494	53E2EBE73B67B7C99A1E6E57A468DC9E
Greece	468-16-2.00	Yes	No	1678	E0DEAC809F41E5DF77AA59DC2536BB86
Greece	468-16-2.01	Yes	No	9858	4ADF6ED7418A747D436C62E181B48420
Greece	468-16-2.02	Yes	No	36DC	AD2EBC28270BBA223EFE05CA36729535
Hungary	468-17-2.00	Yes	No	704D	FD740D4160D0B6DF64F47C38A33460F1
Hungary	468-17-2.01	Yes	No	B151	150B05D9137DF59D95D2C8A3A6F80237
Hungary	468-17-2.02	Yes	No	E4F7	1D678AF3830D37347EF34121279FFEE2
Iceland	468-05-2.00	Yes	No	E36B	57262C012CA2AD3744696DC1668EB1AC
Iceland	468-05-2.01	Yes	No	DCAB	495AAC18225E97EBB0338E3229C25BD7
Iceland	468-05-2.02	Yes	No	0152	C1689213ACD357AA4D640ECAD8C63E38
Ireland	468-35-2.00	Yes	No	55BF	2379B530C511D4B0CB109D20C067D537
Ireland	468-35-2.01	Yes	No	5DB7	68BFOAE9C5708D2D62D0D9A9C2ADA286
Ireland	468-35-2.02	Yes	No	BED3	88019BC7A0E1BA365558FC07B3F55923
Italy	468-13-2.00	Yes	No	5056	9A58B397325FF26AC30AA67F146D5810
Italy	468-13-2.01	Yes	No	DC15	ECD9561AD16DE9737EA532FEB1472746
Italy	468-13-2.02	Yes	No	4D4B	3FE0AF305B091E36609B3749668D4ED8
Latvia	468-31-2.00	Yes	No	0F2B	6868C10031E20DF98690BE1A12D39889
Latvia	468-31-2.01	Yes	No	DC6A	B9199C5B94EC928DDB68F4F0288F22A7
Latvia	468-31-2.02	Yes	No	ABBC	52125ED211DE8C2126B6BB8241B0D338
Lithuania	468-32-2.00	Yes	No	EDDF	AA04E2BB64FDD83187F71087ED55F5C7
Lithuania	468-32-2.01	Yes	No	94EE	0587DFC5D6B1D8AF6226C15161333ACC
Lithuania	468-32-2.02	Yes	No	0E94	39D33E23F3CE8A50EB96EBF17EBE9CFC
Luxemburg	468-83-2.00	Yes	No	FFEB	707A49FD5DFE108945D0AF62F46ECDDE
Luxemburg	468-83-2.01	Yes	No	79AE	D3554BFE8865D8D7CE45A915F5E66C08
Luxemburg	468-83-2.02	Yes	No	F6C9	B1542ABB9992B6857444B0CC2497ED53
Macedonia	468-67-2.00	Yes	No	CBBB	CB74A40D3D541694D63D19DBD29C0EDF
Macedonia	468-67-2.01	Yes	No	D37D	00C4E2F240FAD1DCDB8FC65E43D80768
Macedonia	468-67-2.02	Yes	No	54DE	A38F9D0EC90DAAAD5C63CE58ABCD9EBE
Netherlands	468-08-2.00	Yes	No	10D9	C01BCB7EC5E42F89B614FEB996A21B0E
Netherlands	468-08-2.01	Yes	No	7EE9	8F47FE12A0BDE7D0B3CAC940F6644F27
Netherlands	468-08-2.02	Yes	No	003E	F4B7D7AAB3A202C4BD69C8FEA4DF8094
Norway	468-02-2.00	Yes	No	5861	24E2B554FDC2D587A71E4A839B6F8FE0
Norway	468-02-2.01	Yes	No	4753	FE1972C4BEDD4C9D4513136D3F938E84
Norway	468-02-2.02	Yes	No	5D27	383E8EB777E3BB8F88174D53CD52E652
Poland	468-25-2.00	Yes	No	AF4C	A90EBBB755368F841D36D04D55860717
Poland	468-25-2.01	Yes	No	9FA8	376B177D6F4D5EBFBD7436E9F114531D
Poland	468-25-2.02	Yes	No	7507	C774E69FD732E6C2DC1AB57C11BA8206
Portugal	468-12-2.00	Yes	No	3FC9	7149827804F6AE8FB507F44496D53E07
Portugal	468-12-2.01	Yes	No	1173	2D9C7CB1326ED1EDB7C102C961FA0E69
Portugal	468-12-2.02	Yes	No	1A1D	62950D00A27D541ACD170523CB1C80C6

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Romania	468-20-2.00	Yes	No	9AD2	6EE8769C654A81EF7B6BC29658B96BE4
Romania	468-20-2.01	Yes	No	1A72	9EBDDF93C3F4DB6D66A1473C28C8EC98
Romania	468-20-2.02	Yes	No	1094	50F85AEA21900A2C678A31AB52354ABD
Serbia and Montenegro	468-44-2.00	Yes	No	BF7D	1DCB3CA0C91C3EEF1BF7CCF66B49C400
Serbia and Montenegro	468-44-2.01	Yes	No	328F	C23CE6FE4FCE9BCDE546B4C504BD7480
Serbia and Montenegro	468-44-2.02	Yes	No	558B	4B5764BE2C5E09B0DBCC8EAD69E7BB75
Slovakia	468-21-2.00	Yes	No	7C9F	261C668A1B4B1F1E9C0682DCA781AD2F
Slovakia	468-21-2.01	Yes	No	FE1C	9954C6D7F164E1C656E4418BBA464F5A
Slovakia	468-21-2.02	Yes	No	B834	45D18760F7741F43879F1F6E0DED4959
Slovenia	468-43-2.00	Yes	No	7E25	EBFD50B4667BD3079C6B200F7E818941
Slovenia	468-43-2.01	Yes	No	4D44	EF07B3C3C4239BFDA1171A1E5267E623
Slovenia	468-43-2.02	Yes	No	9BE1	4B1B3AE603ECE0B4BDD4A172871B2428
Spain	468-11-2.00	Yes	No	22C9	C0060469E7C75A978C7E67CDE16A80AF
Spain	468-11-2.01	Yes	No	4F75	53674F51629574A9E992E36A7AB05F32
Spain	468-11-2.02	Yes	No	C8E9	51C2C17B67CAC49F9F41CDC4823009CE
Sweden	468-03-2.00	Yes	No	63E0	0B98F83A48691B2EAEAF79A5E27164C9
Sweden	468-03-2.01	Yes	No	1ED6	45A4CDAA94C5638989BBF7508B370814
Sweden	468-03-2.02	Yes	No	7BF6	E40CD7B35BF5A6F235BA296081FC7AF2
Switzerland	468-15-2.00	Yes	No	C419	76B3DAF6C4FA0A370618ACAA5502CDB6
Switzerland	468-15-2.01	Yes	No	E152	0565D20F11FDAD92E9A4446F4034485C
Switzerland	468-15-2.02	Yes	No	A0A5	04A74591C4DC4F931E2DAB8C4A26A689
Turkey	468-18-2.00	Yes	No	E19E	01A825247C8C646650760415506E24D8
Turkey	468-18-2.01	Yes	No	EC76	6295CD03BADFDD348D12BC705BDB877E
Turkey	468-18-2.02	Yes	No	D565	211E20B8AB429BC0B5CE36DCCD19D4C0
UK	468-06-2.00	Yes	No	364B	8420D25FDA430D523EEF28E098A30F6F
UK	468-06-2.01	Yes	No	E7EB	D6404FBB7728639E1E19925915E691B6
UK	468-06-2.02	Yes	No	C53D	8176BF02E49998718680227901DC8789

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### 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 checksum, which can be accessed according to 5.3.

### 1.5 Integrated equipment and functions not subject to MID

Other equipment may be connected to PSS 5000 (without change of this certificate), such as:

- price poles
- alarms
- tank level systems

## 2 Technical data

### 2.1 Rated operating conditions

Forecourt controller intended for use with fuel dispensers for motor vehicles and POS/OPT. Self service device for direct sales, interruptible, attended pre-payment and post-payment including sale stacking, unattended delayed payment and pre-payment, as covered by specific LAM versions (e.g. if support of memory devices is included). It may include a memory device (only for LAM 1.xx).

#### Measurement range

Scale interval, memorized volume

same as dispenser, but not smaller than 0,01 l

Scale interval, memorized 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 communication protocols as stated in the table below was tested/examined and found in compliance with WGs 8.8, 10.7 and 7.2.

Interface for communication with dispensers is protocol specific as per device certification and protocol scanner implemented in specific PSS LAM version.

The protocol name used when listing LAM protocol scanners are Doms names. Manufacturer protocol names or document names used for interface developments are listed in Doms protocol specific documentation (Protocol Interface Notes).

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Communication with other parts of a measuring system (fuel dispenser) using one of the following protocols. The Protocol Interface Notes listed (or newer revisions) contains information about the documentation as provided by the manufacturer and are used for implementing the protocols.

Pump communication protocol	Protocol Interface Notes
ADASTEASYCALL	DPP_ITNO_Pump_ADAST_Easycall-802946-01.pdf
AUTOCOURT	BPP_ITNO_Pump_WayneAutocourt-Ferranti-800469-02.pdf
AUTOTANK ATCL	DPP_ITNO_Pump_AutoTank_ATCL-800089-07.pdf
BENNETT	DPP_ITNO_Pump_Bennett_Protocol-804878-00.pdf
BP	DPP_ITNO_Pump_BP-802302-02.pdf
CETIL	DPP_ITNO_PUMP_Cetil_EAS1-804325-01.pdf
DOMS PUMP	DPP_ITNO_Pump_BP-802302-02.pdf
DONGHWA	DPP_ITNO_Pump_Dong-Hwa_Prime-804471-01.pdf
DROHERCL	DPP_ITNO_Pump_DroherCurrentLoop-804286-01.pdf
DUNCLARE	DPP_ITNO_Pump_Dunclare_Vers_5-6-800349-02.pdf
Eedac	DPP_ITNO_Pump_Eedac-803181-01.pdf
EIN	DPP_ITNO_Pump_EIN-802165-06.pdf
ELREM	DPP_ITNO_Pump_Elrem_Tank2000_Protocol-805429-00.pdf
EMR3	DPP_ITNO_Pump_EMR3-805536-02.pdf
GASCOMM	DPP_ITNO_pu_Autotank_Gascomm_Protocol-804790-00.pdf
GC21XP	DPP_ITNO_PU_GC21XP_Protocol-804848-02.pdf
GILBARCO 2W	DPP_ITNO_Pump_Gilbarco_2wire-800090-14.pdf
IFSF	DPP_ITNO_Pump_IFSF_Protocol-800555-16.pdf
KOPPENSEPS3/5	DPP_ITNO_Pump_Koppens_ESP-3-5-800350-04.pdf
LOGITRON	DPP_ITNO_Pump_Logitron_Pumalan-802652-07.pdf
MKSER3/2	DPP_ITNO_Pump_MKS_ER3-2-800413-07.pdf
MMPetro	DPP_ITNO_Pump_MMPetro-805248-02.pdf
NOVOTEC	DPP_ITNO_Pump_Novotec-804991-01.pdf
NUOVOPIGNONE	DPP_ITNO_Pump_NuovoPignone-800352-08.pdf
PETROTECCEM03	DPP_ITNO_Pump_PetroTec_CEM03-803352-02.pdf
RongXing	DPP_ITNO_Pump_RongXing-804095-01.pdf
S&BT02	DPP_ITNO_Pump_Scheidt&Bachmann_T02-800410-02.pdf
S&BT10/T20	DPP_ITNO_Pump_S&B_T10-800337-07.pdf
SATAM008	DPP_ITNO_Pump_Satam_008-800550-02.pdf
SATAM82D	DPP_ITNO_Pump_Satam_82D-800351-03.pdf
SCHLUMB. IVPE	DPP_ITNO_Pump_Schlumberger_IVPE_M3000-802295-01.pdf
SCHWELM	DPP_ITNO_Pump_Schwelm_ZSR83-800188-02.pdf
SEETAX-MM	DPP_ITNO_Pump_Seetax_MM-804928-02.pdf
SEETAX-TK	DPP_ITNO_Pump_Seetax-TK-800682-02.pdf
TATSUNO/DOMS	DPP_ITNO_Pump_Tatsuno_Doms-MPI-800336-01.pdf
TATSUNOBENCPDEX	DPP_ITNO_Pump_TatsunoBenc_PDEX-804784-04.pdf
TOKHEIM	DPP_ITNO_Pump_Tokheim-800656-09.pdf
WAYNE CL	DPP_ITNO_Pump_Wayne_Europe_CL-800091-03.pdf
WAYNEDART	DPP_ITNO_Pump_Wayne_DART-800735-09.pdf
WAYNES82/SC86	DPP_ITNO_Pump_Dresser_Wayne_SC82-800654-05.pdf

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If the POS or OPT use transaction data from the PSS for legally relevant purposes, the communication from PSS to POS /OPT must be via a protocol (e.g. Doms POS Protocol) which can transport the security telegram from PSS LAM to POS/OPT.

The security telegram enables the POS or OPT to verify that a transaction is an authentic PSS created transaction, and without this verification the POS or OPT cannot use transaction data from PSS for legally relevant purposes.

The forecourt controller may only be used in a measuring system with:

- all volume and price indicating and printing devices having the same scale interval as defined by actual PSS LAM.
- LAM versions 2.xx support use of pumps with different scale intervals

### POS and OPT responsibilities

#### General Responsibilities

It is the responsibility of the connected POS system to display the status information presented by the PSS Forecourt Controller to the operator, so actions can be taken when system errors occur. POS and OPT to present the transactions with the scale interval according to PSS LAM.

#### Attended Service

In configurations where the POS system provides the "primary indicator" (e.g. a receipt printer), the POS system must at certain intervals check the device and send the result to the PSS 5000 Forecourt Controller. If a necessary "primary indicator" is not working, the PSS will no longer store transactions on the transaction stack.

The PSS provides transaction information (security telegram) with authentication codes, which the POS or OPT must check before presenting the data as trusted data to the customer.

#### Unattended Service

For unattended service, an OPT will be responsible for providing the customer with the receipt and inform the customer if receipts are not available. The OPT must authorize using the appropriate authorization message. The transaction received from the PSS will contain a PSS Receipt Number (Transaction Log Sequence Number), which must be included on the customers receipt as reference to the PSS Transaction Log.

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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

Before the board is sealed the LAM must contain configuration of pumps using non-default scale intervals. Default scale intervals are hardcoded in each LAM. If information about the site equipment (pumps) is available prior to the installation, e.g. that all pumps use default scale intervals as defined in PSS LAM, the board can be sealed prior to installation.

During installation it must be verified for each pump, that the scale interval on each devices matches the read-out on PSS Web and on POS/OPT devices. If the verification fails, the PSS must be reconfigured with new LAM configuration. This requires removal of the sealing plug during configuration, and a new seal-sticker after the seal-plug has been re-installed and the scale intervals verified.

See “Quick Guide for W&M Officers” for details.

### 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 software of PSS 5000 is identified by a unique checksum (see 1.2). When the “Idle menu” is shown on the Local Service Panel display, press ↓ to move to the “LAM VERSION W.1” menu. Then press → to move to the “LAM VERS. CHKSUM” to view the LAM version and checksum.

### 5.4 Calibration-/adjustment procedure

Not applicable.

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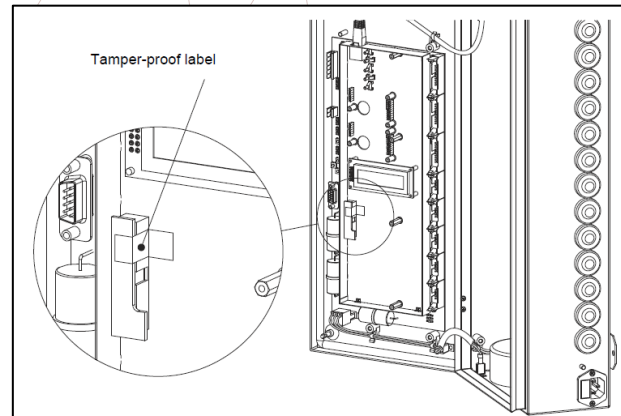
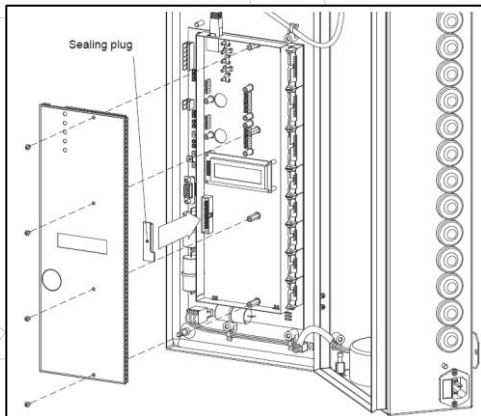
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## 6 Security measures

### 6.1 a Sealing of Systems with CPB50x

The forecourt controller is sealed. The seal has to be broken before LAM can be uploaded or the BOOT changed.



#### Sealing of the PSS 5000:

1. Open the door on the PSS 5000 Forecourt Controller cabinet, remove the cover plate protecting the CPB and locate the sealing socket.
2. Orientate the sealing plug as shown in left picture and insert it in the socket.
3. Affix a tamper-proof label to the sealing plug as shown in right picture. This acts as a visual check to ensure that the sealing plug has not been removed.
4. Fit the cover plate on the CPB and secure it using the 4 screws.
5. Perform a Soft Reset or power down and then power up the PSS 5000 Forecourt Controller to activate the sealing.
6. Verify that the sealing is active by using the Service Menus to do one of the following:
  - For LAM versions 1.xx, select 1.2.2 Sealing Switch and make sure that the parameter Hardware Sealing Switch is set to ON.
  - For LAM versions 2.xx, select W.2 LAM PARAMETERS and make sure that the parameter LAM\_DATA\_SEALED is set to YES.

#### Inspection of sealing:

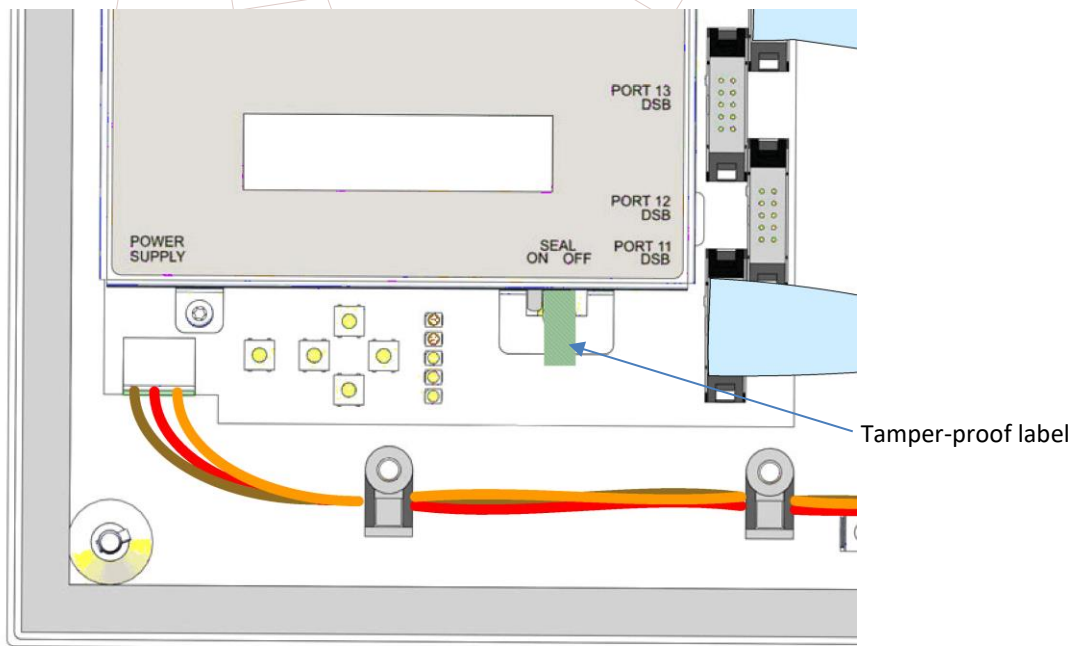
1. Open the door on the PSS 5000 Forecourt Controller cabinet and locate the sealing plug spy hole.
2. View the tamper-proof label and make sure it is still present and intact.

## 6.1 b Sealing of Systems with CPB539

The forecourt controller is sealed. The seal has to be broken before the PSS Manager or LAM can be uploaded.

### Sealing of the PSS 5000:

1. Open the door on the PSS 5000 cabinet, remove the 6 screws that secure the cover plate protecting the CPB.
2. Slide the Sealing switch from the OFF position to the ON position.
3. Replace the cover panel and secure it with the 6 securing screws.
4. Affix a tamper-proof label to the sealing switch and the securing screw as shown below.



This acts as a visual check to ensure that the sealing switch has not been moved.

5. Perform a Soft Reset or power down and then power up the PSS 5000 Forecourt Controller to activate the sealing.
6. Verify that the sealing is active by using the PSS Web Application to select A.2 LAM Parameters and make sure that the parameter LAM\_DATA\_SEALED is set to YES.

### Inspection of sealing:

1. Open the door on the PSS 5000 Forecourt Controller cabinet and locate the sealing switch.
2. View the tamper-proof label and make sure it is still present and intact.

## 6.2 Data logger

PSS 5000 acts as memory device for unattended delayed payment with cards. It is also used for temporary storage (sale stacking). See 1.2 for details of which LAM that supports this.

## 7 Labelling and inscriptions

### 7.1 Information to be borne by and to accompany the instrument

The marking plate/label mounted on the device shall contain the following information:

- the name and address of the manufacturer
- the serial number of the forecourt controller and year of manufacture
- the designation or type name
- the Parts Certificate number, **SC0257-15**, of the forecourt controller
- place for identification of the connected fuel dispenser(s),  
(alternatively use PSS Web online list)
- 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 forecourt controller 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 5P00126-1 (referring to test and examinations in test report 5P00125-1, 5P00125-2, 5P00125-3, 5P00125-01 and 5P07853-03). A summary of the evaluation under this certificate is given below.

Description	Result	Report/remark/notes
Relevant parts of the checklist OIML R117-1	*	SP reports 5P00125-1, 5P00125-2, 5P00125-3

Welmec 7.2 <sup>1)</sup>	Description	Result	Report/remark/notes
Type P	Requirements on basic configuration	*	SP reports 5P00125-01, 5P07853-03
Type U	Requirements on basic configuration	/	---
Extension L	Requirements on data storage	*	SP reports 5P00125-01, 5P07853-03
Extension T	Requirements on interfaces	*	
Extension S	Requirements on software separation	*	
Extension D	Requirements on software download	*	
Extension I	Specific software requirements	/	---

<sup>1)</sup> Requirement/type according to Welmec Guide 7.2

\* = Fulfils requirements / = Not applicable