



PSS 5000

Hardware Configuration Guide

Selecting the CPU Board and Interface Modules



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About This Documentation

Purpose	This documentation enables you to select the correct hardware to configure a PSS 5000 for a specific site. It describes the prerequisites required before you start and leads you through the process of selecting the correct types and number of modules required for the specific system.
Audience	The content of this documentation is designed for any person who needs to configure the hardware of a PSS 5000 forecourt controller for specific forecourt devices.

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1 How to Select the Correct Hardware

Overview

Before a PSS 5000 can be installed on a site, the correct Hardware Interface Modules (HIMs) must be selected. The method to select the correct HIMs and an example of how to connect the devices and HIMs together are provided in the following topics:

- [‘1.1 Selecting Hardware Interface Modules \(HIMs\) and CPU Board’ on page 4](#)
- [‘1.2 A Worked Example of How to Select HIMs’ on page 5](#)

1.1 Selecting Hardware Interface Modules (HIMs) and CPU Board

To select the correct HIMs for the PSS 5000

This procedure describes how to obtain the information necessary to select the correct type and number of HIMs.

Note: If your forecourt devices, protocols or interfaces do not match the reference tables, contact support@doms.dk to help provide a solution.

1. Make a list of all the devices on the forecourt that you want the PSS 5000 to control.

To help you create this list, there is a form at the end of this documentation.

2. Look at the POS and find out which type of interface connection exists between the POS and the PSS 5000:

- If the connection is a serial interface, use the HIM hardware table ([‘3.8 HIM Details and Interface Types’ on page 27](#)) to select the correct DSB module for the interface type. Continue to Step 3.
- If an Ethernet interface is used, go to Step 3.

3. Use the Manufacturer/Protocol tables (see [‘2 Device Manufacturers and Device Protocols Used’ on page 10](#)) to see which protocol each device uses, or is most likely to use. Write this in the list opposite each of the devices.

4. Use the Protocol/HIM tables (see [‘3 Device Protocols and Associated HIMs’ on page 17](#)) to select the HIMs for the actual Protocol/physical interfaces the devices use.

Note: If your actual Protocol/physical interface combinations are not listed in the tables, contact support@doms.dk for a solution.

5. Use the connection information provided for each HIM (see [‘3.8 HIM Details and Interface Types’ on page 27](#)) to determine how many of each type of HIM you require.
6. Use your list to see how many different protocols are used. From this, determine how many ports you must use on the CPU board.

Each protocol type requires a separate port on the CPU board.

Note: If you require support for more devices/port than is specified, contact support@doms.dk.

7. Use the information from Step 5. and Step 6. together with the information in [‘4 PSS 5000 CPU Board and Cabinet Specifications’ on page 31](#) to help you decide which CPU board and cabinet to select for the PSS 5000.
8. Use the information in [‘5 PSS 5000 Accessories List’ on page 34](#) to select

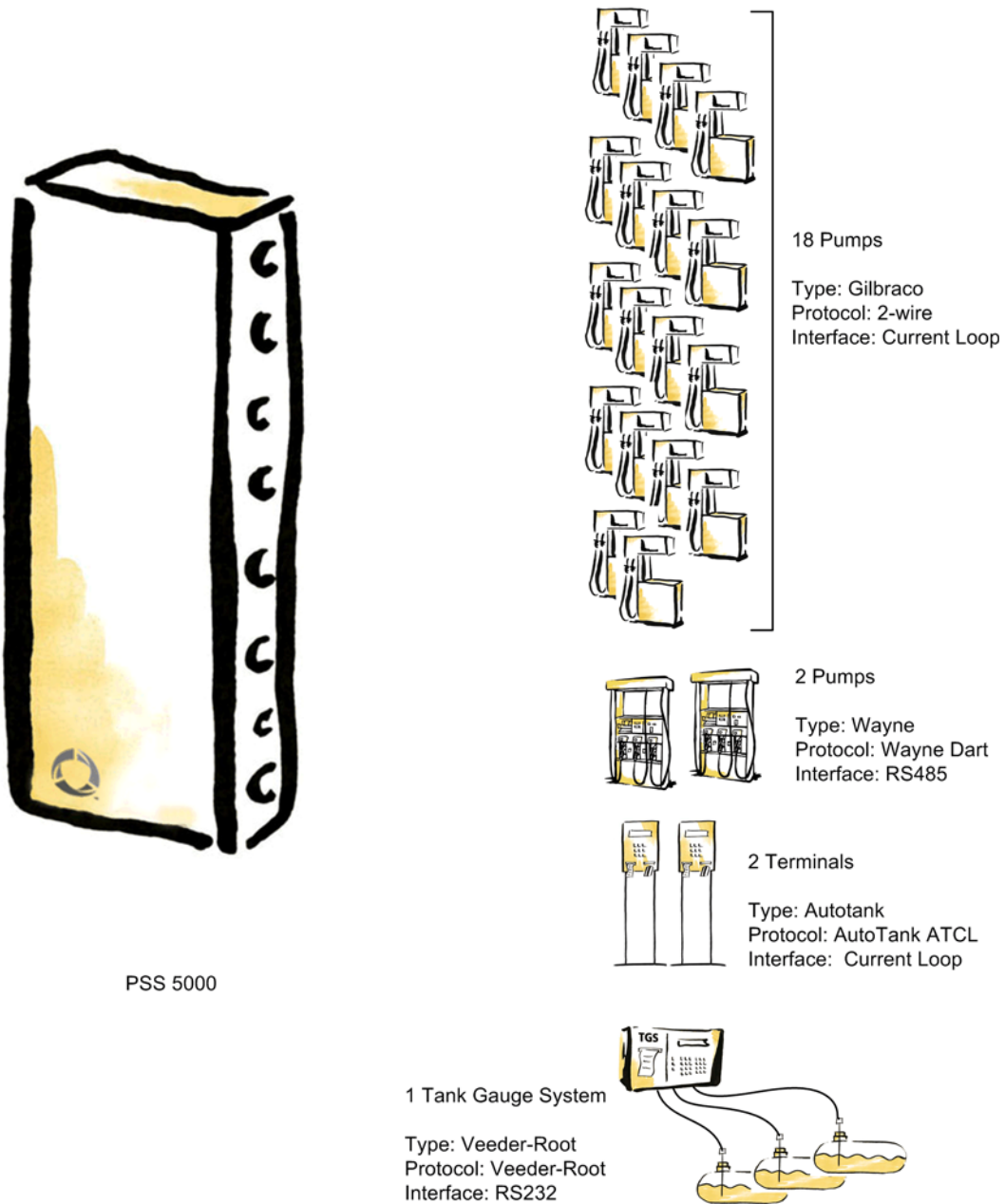
the accessories you require (cables, etc).

For example, if your HIMs fill more than 14 single-width modules, you need an extension rail to mount all the HIMs.

1.2 A Worked Example of How to Select HIMs

Worked example
forecourt scenario

The figure below is an example of a simple petrol station forecourt. We will use this scenario to introduce the concepts of selecting the correct HIMs and connecting the HIMs to the ports on the CPU Board.



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Worked example procedure

In this procedure we will use the ‘[Worked example forecourt scenario](#)’ on [page 5](#) to provide the necessary input to select the correct HIMs.

1. Make a list of the types and numbers of devices on the forecourt.

Device	Manufacturer	No.	Protocol	Interface Type	HIM				HIMs Required
					Name	Connections	Stock No.	Width	
Pumps	Gilbarco	18							
Pumps	Wayne	2							
TGS	Veeder-Root	1							
Terminals	Autotank	2							

2. Use the Manufacturer/Protocol tables to select the protocols used.

2 Device Manufacturers and Interface Protocols

2.1 Pump Manufacturers and Protocols

Manufacturers	Protocols
Adast	'Adast Easytall' on page 17
Autotank	'Auto Tank ATCL' on page 17
Avery	'Avery Single Hose' on page 17
Cetti	'Cetti EASI' on page 17
Dresser Wayne	'Dresser Wayne SC2/SC26' on page 17
Droher	'Droher-Condohr Protocol' on page 18
Droher	'Droher-Current Loop Protocol' on page 18
Duncane	'Duncane' on page 18
Dong Hwa	'Dong Hwa Prime' on page 17
EIN	'EIN' on page 18
Gilbarco	'Gilbarco 2-wire' on page 18
Gilbarco	'IFB' on page 18
Popper	'Popper EPS-3/C' on page 18
Larsen & Toubro	'Larsen & Toubro Z-line' on page 18
Larsen & Toubro	'Larsen & Toubro MPD/QUAD' on page 18
Logtron	'Logtron Purnali' on page 18
Mido	'Mido' on page 18
Mannesmann Kienzle	'MKS ER3/ER4, ER 3/2' on page 18
Nuovo Pignone	'Nuovo Pignone' on page 18
Petrotec	'Petrotec' on page 18
Prowalco	'Prowalco' on page 18

2.2 Tank Gauge System (TGS) Manufacturers and Protocols

Manufacturers	Protocols
4tech	'4Tech Fuelcom 501' on page 19
B Control A (CMS)	'B Control A (CMS)' on page 19
Egemin Naamloze	'Egemin LGS2' on page 19
Enraf	'Enraf STIC 887 rGPU' on page 19
Falhir	'Falhir Visy-Quick' on page 19
Hecronic	'Hecronic H-Protocol' on page 19
Lemis Baltic	'Lemis DC-400' on page 19
Petro-Vend	'PetroVend' on page 19
Struck	'StruckM' on page 19
Veeder-Root	'Veeder-Root' on page 20

Manufacturers	Protocols
Autotank	'AutoTank ATCL' on page 20
Coolex	'Coolex C-bus' on page 20
Domis	'Domis FlexPay' on page 20
	'FlexPay Standard' on page 20

Note: The cross-references (blue text) in the Manufacturer/Protocol tables lead you to the correct protocol in the Protocol/HIM table. In this example, the Gilbarco pump that uses a 2-wire protocol leads you to ‘[Gilbarco 2-wire](#)’ on [page 18](#).

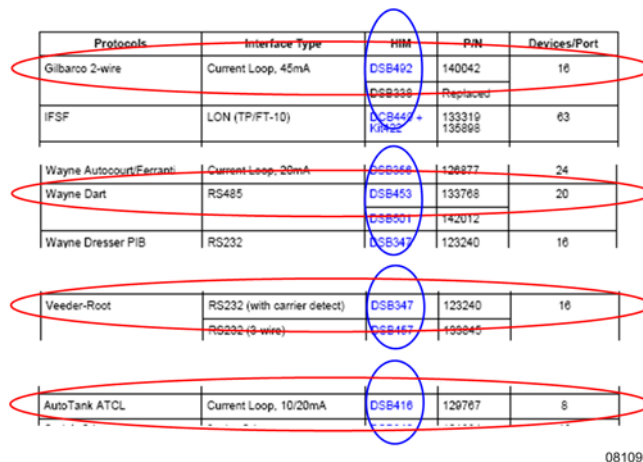
3. Add each of the protocols to your list.

Note: If more than one protocol is possible, check the hardware to see which one is implemented.

Device	Manufacturer	No.	Protocol	Interface Type	HIM				HIMs Required
					Name	Connections	Stock No.	Width	
Pumps	Gilbarco	18	Gilbarco, 2-wire						
Pumps	Wayne	2	Wayne Dart						
TGS	Veeder-Root	1	Veeder-Root						
Terminals	Autotank	2	AutoTank ATCL						

- Use the Protocol/HIM tables to find out which HIMs you must use to connect the PSS 5000 to the forecourt devices.

When you have found the correct protocol, select the interface type used by the device. Next to this information is the name of the correct HIM.



Protocols	Interface Type	HIM	P/N	Devices/Port
Gilbarco 2-wire	Current Loop, 45mA	DSB492	140042	16
		DSB338	Replaced	
JFSF	LON (TPI/T-10)	DSB447 + KIN22	133319 135895	63
Wayne Autocoupl/Ferranti	Current Loop, 20mA	DSB546	128877	24
Wayne Dart	RS485	DSB453	133768	20
		DSB501	142012	
Wayne Dresser PIB	RS232	DSB547	123240	16
Veeder-Root	RS232 (with carrier detect)	DSB347	123240	16
	RS232 (3-wire)	DSB467	133845	
AutoTank ATCL	Current Loop, 10/20mA	DSB416	129767	8

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- Use the HIM Details table to find and add the connection details, Doms Stock number and module width for the individual HIMs to your list.

Device	Manufacturer	No.	Protocol	Interface Type	HIM				HIMs Required
					Name	Connections	Stock No.	Width	
Pumps	Gilbarco	18	2-wire	Current Loop	DSB492	8	140042	2	
Pumps	Wayne	2	Wayne Dart	RS485, 2-wire	DSB453	4	133768	2	
TGS	Veeder-Root	1	Veeder-Root	RS232 (3wire)	DSB347	4	133845	2	
Terminals	Autotank	2	AutoTank ATCL	Current Loop	DSB416	4	129767	2	

- Use the **No.** and **HIM Connections** values to determine how many HIMs you require for each protocol.

In the example, the Gilbarco pumps use DSB492. Each DSB492 can have 8 pumps connected to it. Therefore, to connect 18 pumps you need to use 3 DSB492 modules.

Device	Manufacturer	No.	Protocol	Interface Type	HIM				HIMs Required
					Name	Connections	Stock No.	Width	
Pumps	Gilbarco	18	2-wire	Current Loop	DSB492	8	140042	2	3
Pumps	Wayne	2	Wayne Dart	RS485, 2-wire	DSB453	4	133768	2	1
TGS	Veeder-Root	1	Veeder-Root	RS232 (3wire)	DSB347	4	133845	2	1
Terminals	Autotank	2	AutoTank ATCL	Current Loop	DSB416	4	129767	2	1

- Add all the **Width** values for the individual modules. In this example, the total width for all the modules is 12 single-module units.

Using the cabinet specifications, you can see that the standard cabinet, which houses 14 single-module units, must be used and that no extension rail is required here.

- Use the CPU Board Specifications table to select the board that you need to use.

Parameters	CPU Board Version	
	505	509
CPU Specs		
CPU Type	ColdFire MCF5307	GoldFire MCF5307
CPU Bus (bit)	16	32
Flash (MB)	8	16
SRAM (MB)	2	4
Port Types and Number		
DSB	3	5 ¹
DMB / DSB	1	3 ¹
Ethernet	1	1
Service (serial)	0 ³	1
Extension socket (LON - FTT10)	1 (option)	2 (option)
Ports with speed rating²		
Port 11 - DSB	Standard	High-speed

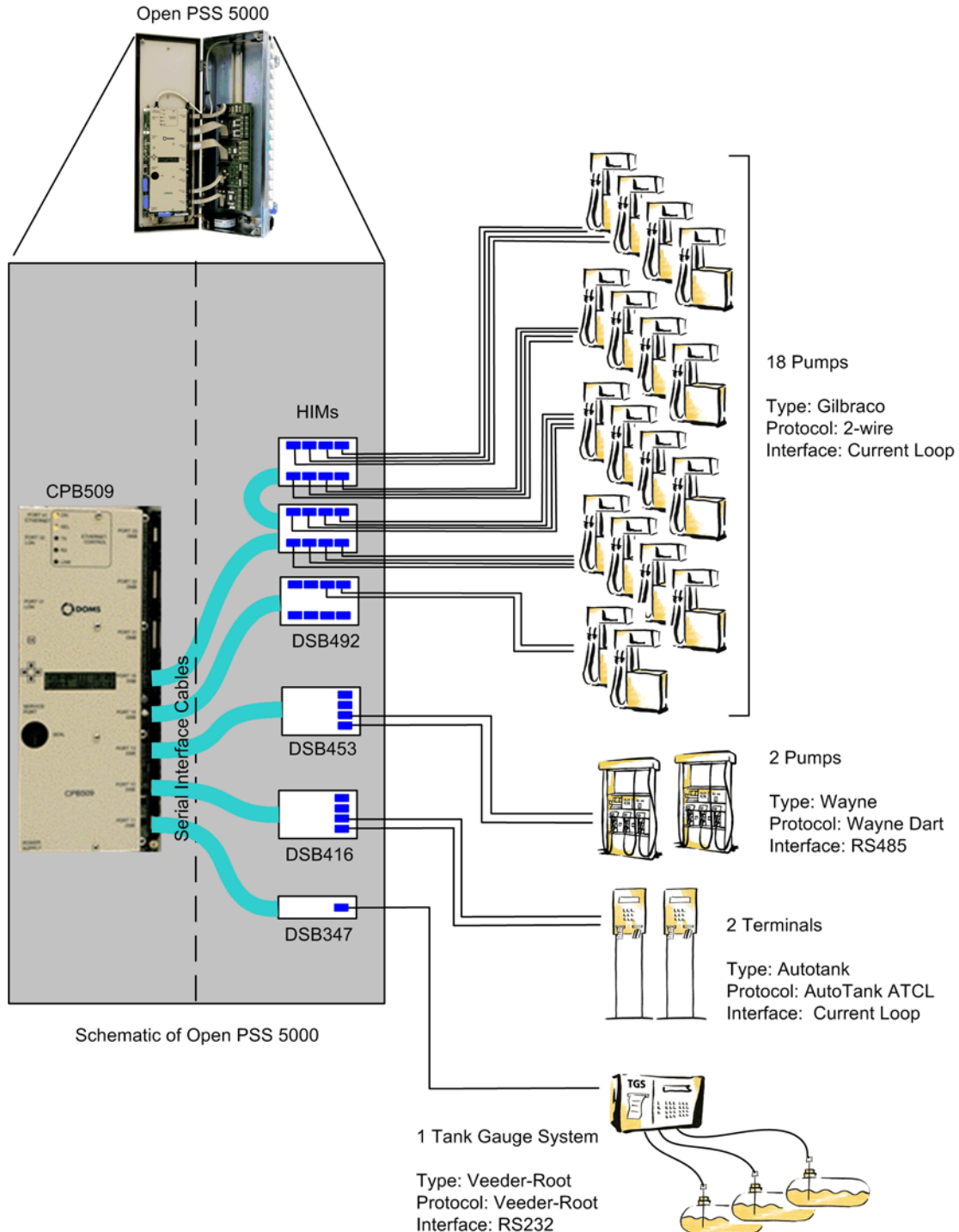
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By looking at your list, you can see that 4 different protocols are used. But because the Protocol/Interface Type combination (Gilbarco, 2-wire/Current Loop) restricts the maximum number of devices on a CPU board port to 16, you need to use 2 ports. This means that you require at least 5 ports on the CPU board. Therefore, the CPB509 must be used.

If the CPB505 had met the requirements, you must always consider what may be required in the future before you make your board selection.

9. You are now ready to connect the selected HIMs to the CPU Board.

The figure below shows the devices connected to a CPB509 board through the HIMs and the associated serial interface cables.



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Note: This illustrates that only 16 devices using the Current Loop interface can be connected to a single port. Under normal circumstances, we recommend that load balancing is used on the ports when connecting multiple devices (with the same protocol) to multiple modules – this increases performance.

2 Device Manufacturers and Device Protocols Used

List of types of devices using protocols

The connectivity of the PSS 5000 is achieved by its ability to interface with different device protocols. The complete list of protocols are divided into the following topics:

- [‘2.1 Pump Manufacturers and Protocols’ on page 10](#)
- [‘2.2 Tank Gauge System \(TGS\) Manufacturers and Protocols’ on page 13](#)
- [‘2.3 Terminal Manufacturers and Protocols’ on page 14](#)
- [‘2.4 Washing Machine Manufacturers and Protocols’ on page 15](#)
- [‘2.5 Vapor Recovery Monitoring Systems Manufacturers and Protocols’ on page 15](#)
- [‘2.6 Price Sign Manufactures and Protocols’ on page 16](#)

Devices using IFSF

Many manufacturers provide an interface that uses the International Forecourt Standard Forum (IFSF) protocol. Although this is a standard protocol, which can be checked using the IFSF certification tool, it is recommended that the devices are tested with a PSS 5000 before they are commissioned.

Where the IFSF protocol is shown opposite a manufacturer’s name in the Manufacturers/Protocols tables, this indicates that the protocol has been tested with one or more devices from this manufacturer.

2.1 Pump Manufacturers and Protocols

List of pump manufacturers and associated protocols

A list of the pump manufacturers and supported protocols are shown in the table below:

Manufacturers	Protocols
Adast	‘Adast Easycall’ on page 17
Agira	‘GC21 XP’ on page 18
Aspro	‘GC21 XP’ on page 18
Autotank	‘Auto Tank ATCL’ on page 17
Avery	‘Avery Single Hose’ on page 18
Bennett	‘Bennett’ on page 18
Cetil	‘Cetil EAS1’ on page 18
Dong Hwa	‘Dong Hwa Prime’ on page 18
Dresser Wayne	‘Dresser Wayne SC82/SC86’ on page 18
Droher	‘Droher-Condohr Protocol’ on page 18
	‘Droher-Current Loop Protocol’ on page 18
Dunclare	‘Dunclare’ on page 18
EIN	‘EIN’ on page 18
Galileo	‘GC21 XP’ on page 18

Manufacturers	Protocols
Gilbarco	'Gilbarco 2-wire' on page 18
	'IFSF' on page 18
	'Novotec' on page 19
IMW	'GC21 XP' on page 18
Insta / Instrumentointi	'Gascomm' on page 18
Koppens	'Koppens EPS-3/5' on page 18
Larsen & Toubro	'Larsen & Toubro Z-line' on page 18
	'Larsen & Toubro MPD/QUAD' on page 18
Logitron	'Logitron Pumalan' on page 19
Mannesmann Kienzle	'MKS ER 3/2 (ER3/ER4)' on page 19
Midco	'Midco' on page 19
Nara	'Nara' on page 19
Nuovo Pignone	'Nuovo Pignone' on page 19
Petrotec	'Petrotec' on page 19
Prompribor	'Prompribor LIVNY' on page 19
Prowalco	'Prowalco SPDC-1, MPDC-1' on page 19
Pump Control	'GC21 XP' on page 18
RongXing	'RongXing MPD' on page 19
Satam	'Satam 008' on page 19
	'Satam 82D' on page 19
Scheidt & Bachmann	'Scheidt & Bachmann T02' on page 19
	'Scheidt & Bachmann T10/8' on page 19
	'IFSF' on page 18
Schlumberger	'Schlumberger IVPE/M3000' on page 19
	'Schwelm ZSR83' on page 19
	'IFSF' on page 18
Schwelm	'Schwelm ZSR83' on page 19
Tatsuno	'Tatsuno (Doms MPI)' on page 19
	'Tatsuno Sunny Ex' on page 19
	'Tatsuno-Benc' on page 19
TIM	'TIM' on page 19

Manufacturers	Protocols
Tokheim	'Auto Tank ATCL' on page 17
	'Dunclare' on page 18
	'EIN' on page 18
	'IFSF' on page 18
	'Koppens EPS-3/5' on page 18
	'Logitron Pumalan' on page 19
	'MKS ER 3/2 (ER3/ER4)' on page 19
	'Satam 82D' on page 19
	'Schlumberger IVPE/M3000' on page 19
	'Schwelm ZSR83' on page 19
	'Tatsuno (Doms MPI)' on page 19
'Tokheim' on page 20	
Tokheim Hengshan	'Hengshan HS01' on page 18
Wayne	'Wayne Autocourt/Ferranti' on page 20
	'Wayne Dart' on page 20
	'Wayne Europe/Ljungmans (Current Loop)' on page 20
	'IFSF' on page 18

2.2 Tank Gauge System (TGS) Manufacturers and Protocols

List of TGS manufacturers and protocols

A list of the Tank Gauge System (TGS) manufacturers and supported protocols are shown in the table below:

Manufacturers	Protocols
4tech	'4Tech Fuelcom 501' on page 20
B Control A (CMS)	'B Control A (CMS)' on page 20
Egemin Naamloze	'Egemin LGS2' on page 20
Enraf	'Enraf STIC 867 (GPU)' on page 20
Fafnir	'Fafnir Visy-Quick' on page 20
Hectronic	'Hectronic H-Protocol' on page 20
	'Hectronic HLS Protocol' on page 20
	'IFSF' on page 20
Incon	'Veeder-Root' on page 21
Labko	'Veeder-Root' on page 21
Lemis Baltic	'Lemis DC-400' on page 21
Omntec	'Veeder-Root' on page 21
OPW	'Veeder-Root' on page 21
Petro Vend	'Petrovend4' on page 21
	'IFSF' on page 20
Struna	'Struna-M' on page 21
START Italiana	'Veeder-Root' on page 21
Veeder-Root	'Veeder-Root' on page 21
	'IFSF' on page 20

2.3 Terminal Manufacturers and Protocols

List of terminal manufacturers and protocols

A list of the terminal manufacturers and supported protocols are shown in the table below:

Manufacturers	Protocols
ACG	'ACG Mifare RFID Reader' on page 22
Autotank	'AutoTank ATCL' on page 22
Banksys	'Banksys' on page 22
Codab	'Codab C-bus' on page 22
Doms	'Doms FlexPay' on page 22
	'Doms POS' on page 22
	'Doms Standard Terminal' on page 22
	'PetroPay 4000' on page 22
Dresser Wayne	See Wayne
EIN DAC	'EIN DAC' on page 22
Gilbarco	'Gilbarco SPOT' on page 22
	'Generic CRIND' on page 22
Orpak	'Orpak VIT' on page 22
POSTEC	'POSTEC Prism OPT' on page 22
	'POSTEC TVD Tag Reader' on page 22
Prowalco	'Prowalco Remote Tagging ZA-069 (IRIU)' on page 22
	'Prowalco Pump Tag' on page 22
Synergy	'Octane 2000 Tag' on page 22
Tokheim	'Tokheim DAC MPA V5' on page 22
	'Tokheim Pump Tag' on page 23
	'Banksys' on page 22
Wayne	'Wayne CL Terminal' on page 23
	'Wayne CL/EPS-42 Terminal' on page 23

2.4 Washing Machine Manufacturers and Protocols

List of washing machine manufacturers and protocols

A list of the washing machine manufacturers and supported protocols are shown in the table below:

Manufacturers	Protocols
Washtec	'IFSF Car wash' on page 23
Christ	'IFSF Car wash' on page 23

2.5 Vapor Recovery Monitoring Systems Manufacturers and Protocols

List of vapor recovery monitoring systems manufacturers and protocols

A list of manufacturers of Vapor Recovery Monitoring (VRM) systems and supported protocols are shown in the table below:

Manufacturers	Protocols
Fafnir	'Fafnir DVRC' on page 23

2.6 Price Sign Manufactures and Protocols

List of price sign manufacturers and protocols

A list of price sign manufacturers and supported protocols are shown in the table below:

Manufacturers	Protocols
Abat	'Nautica' on page 24
Able	'Scheidt & Bachmann T10/8' on page 24
Digitekno	'Digitekno' on page 24
EIN	'EIN' on page 24
Inno-Sign	'IFSF' on page 24
	'IBIS' on page 24
Linetron	'Linetron' on page 24
Mannesmann Kienzle	'MKS ER 3/2' on page 24
PWM	'PWM-InHouse-Ethernet' on page 24
	'IFSF' on page 24
Scheidt & Bachmann	'Scheidt & Bachmann T10/8' on page 24
Tammerneon	'Tammerneon LED' on page 24
Totem	'Totem' on page 24
VDS	'VDS' on page 24
Wayne	'Wayne Marketer' on page 24

3 Device Protocols and Associated HIMs

List of types of devices using protocols

The PSS 5000 can connect to many different devices using a multitude of different device protocols. The complete list of protocols are divided into the following topics:

- [‘3.1 Pump Protocols and HIMs’ on page 17](#)
- [‘3.2 Tank Gauge System \(TGS\) Protocols and HIMs’ on page 20](#)
- [‘3.3 Terminal Protocols and HIMs’ on page 22](#)
- [‘3.4 Washing Machine Protocols and HIMs’ on page 23](#)
- [‘3.5 Vapor Recovery Monitoring Controller Protocols and HIMs’ on page 23](#)
- [‘3.6 Price Pole Protocols and HIMs’ on page 24](#)
- [‘3.7 Interface Types and HIMs’ on page 25](#)
- [‘3.8 HIM Details and Interface Types’ on page 27](#)
- [‘3.9 Discontinued HIMs and Possible Replacements’ on page 30](#)

If your actual Protocol/physical interface combinations are not listed in the tables, contact support@doms.dk for possible solutions.

General information about connections for devices and HIMs

Each HIM has a maximum number of connections. If you are connecting devices in series (multiple devices per HIM connection) then use the HIM name hyperlink (or [‘3.8 HIM Details and Interface Types’ on page 27](#)) for information about the maximum number of devices permitted per connection (see **Max. no. of devices/connection**).

HIMs are connected to a port on the CPB. This connection can be direct or through another HIM by creating a daisy-chain, which increases the number of devices on the CPB port. However, the protocol may limit the maximum number of devices that can be connected to a port on the CPB. This information is shown in the **Devices/Port** column.

3.1 Pump Protocols and HIMs

List of pump protocols and associated HIMs

A complete list of the pump protocols currently supported by the PSS 5000 and the HIMs associated with the protocols and interface types are shown in the table below:

Note: Where **Devices** in **Devices/Port** refers to the number of fuelling points that can be connected to each port on the CPB.

Protocols	Interface Type	HIM	Stock No.	Devices/Port
Adest EasyCall	RS485	DSB453	133768	16
		DSB501	142012	
Aplab Serial protocol	RS485	DSB453	133768	16
		DSB501	142012	
Auto Tank ATCL	Current Loop, 10/20mA	DSB416	129767	8

Protocols	Interface Type	HIM	Stock No.	Devices/Port
Avery Single Hose	RS485	DSB453	133768	16
		DSB501	142012	
BP Standard Protocol	RS232	DSB347	123240	40
Bennett	Current Loop 20mA	DMB425	130742	16
Cetil EAS1	RS485	DSB453	133768	16
		DSB501	142012	
Dong Hwa Prime	RS422	DSB352	125775	16
Dresser Wayne SC82/SC86	Current Loop, 30mA	DSB423 ¹	130250	24
		DSB475	136841	
		DSB510	142390	
	RS485	DSB453	133768	
Droher-Condohr Protocol	RS485	DSB337	Replaced	24
		DSB501	142012	
Droher-Current Loop Protocol	Current Loop, 20mA	DSB356	Replaced	16
		DSB517	143186	
Dunclare	Current Loop, 20mA	DMB431	Replaced	16
		DMB507	142346	
EIN	Current Loop, 20mA	DSB476	137571	16
GC21 XP	Current Loop, 20mA	DSB356	Replaced	16
		DSB517	143186	
Gascomm	2-wire, active pull down	DMB514	143076	16
Gilbarco 2-wire	Current Loop, 45mA	DSB338	Replaced	16
		DSB378 ¹	129251	
		DSB492	140042	
		DSB511	142390	
Hengshan HS01	Current Loop, 10mA	DMB450	133395	16
IFSF	LON (TP/FT-10)	DCB449 + Kit422	133319 135898	63
Koppens EPS-3/5	4-wire, Diff. Interface	DMB430	Replaced	16
	4-wire, Diff. Interface with auto-watch	DMB512	142546	
Larsen & Toubro Z-line	RS485	DSB453	133768	16
		DSB501	142012	
Larsen & Toubro MPD/QUAD	RS485	DSB453	133768	16
		DSB501	142012	

Protocols	Interface Type	HIM	Stock No.	Devices/Port
Logitron Pumalan	Current Loop, 20mA	DSB461	134791	16
Midco	RS485	DSB453	133768	16
		DSB501	142012	
MKS ER 3/2 (ER3/ER4)	Current Loop 25mA	DMB489	139024	16
Novotec	RS485, +5V supply	DSB521	143437	8
Nara	RS485	DSB453	133768	16
Nuovo Pignone	Current Loop 4-wire 24V/50mA	DMB426	130745	16
	RS485	DSB453	133768	
		DSB501	142012	
Petrotec	4-wire, Diff. Interface with auto-watch	DMB512	133745	16
Prompibor LIVNY	Current Loop 20mA	DMB425	130742	16
Prowalco SPDC-1, MPDC-1	Current Loop, 45mA	DSB378 ¹	129251	16
		DSB492	140042	
		DSB511	142390	
RongXing MPD	RS422	DSB352	125775	16
Satam 008	Current Loop, 20mA	DMB425	130742	16
Satam 82D	Current Loop, 20mA	DMB425	130742	16
Scheidt & Bachmann T02	S & B Proprietary	DMB443	132060	16
Scheidt & Bachmann T10/8	RS485	DMB354	Replaced	16
		DMB506	142292	
Schlumberger IVPE/M3000	Current Loop, 20mA	DMB425	130742	16
Schwelm ZSR83	Current Loop, 20mA	DMB431	Replaced	16
		DMB507	142346	16
Seetax TK	Current Loop, 10mA	DMB450	133395	16
South West MLPC3	Current Loop, 20mA	DSB486	139212	16
Tatsuno (Doms MPI)	RS485 (grade select)	DSB348	123789	16
Tatsuno-Benc	RS485	DSB453	133768	16
Tatsuno Sunny Ex	RS485	DSB453	133768	16
		DSB501	142012	
TIM	RS485	DSB453	133768	16
		DSB501	142012	

Protocols	Interface Type	HIM	Stock No.	Devices/Port
Tokheim	Current Loop, 20mA	DSB408	Replaced	16
		DSB520	143357	
	RS232	DSB357	126879	
Topaz	RS485	DSB453	133768	16
Wayne Autocourt/Ferranti	Current Loop, 20mA	DSB356	Replaced	24
		DSB517	143186	
Wayne Dart	RS485	DSB453	133768	20
		DSB501	142012	
Wayne Europe/Ljungmans (Current Loop)	Current Loop, 40mA	DSB415	Replaced	16
	Current Loop, 30mA	DSB475	136841	
Note:				
1: This module may only be used in existing configurations where the devices are connected in a loop, and it is not possible to reconfigure the cables. Contact support@doms.dk before you select this module.				

3.2 Tank Gauge System (TGS) Protocols and HIMs

List of TGS protocols and associated HIMs

A complete list of the Tank Gauge System (TGS) protocols and the HIMs associated with the protocols currently supported by the PSS 5000 are shown in the table below:

Note: Where **Devices** in **Devices/Port** refers to the maximum number of tank gauges that are supported by the PSS per connected TGS. Normally, the PSS supports only one TGS per port.

Protocols	Interface Type	HIM	Stock No.	Devices /Port
4Tech Fuelcom 501	RS232 (with carrier detect)	DSB347	123240	8
	RS232 (3-wire)	DSB457	133845	
B Control A (CMS)	RS232 (with carrier detect)	DSB347	123240	16
	RS232 (3-wire)	DSB457	133845	
Egemin LGS2	RS232 (with carrier detect)	DSB347	123240	8
	RS232 (3-wire)	DSB457	133845	
Enraf STIC 867 (GPU)	RS232 (with carrier detect)	DSB347	123240	10
	RS232 (3-wire)	DSB457	133845	
Fafnir Visy-Quick	RS232 (with carrier detect)	DSB347	123240	16
	RS232 (3-wire)	DSB457	133845	
Hectronic H-Protocol	RS232 (with carrier detect)	DSB347	123240	20
	RS232 (3-wire)	DSB457	133845	
Hectronic HLS Protocol	RS232 (with carrier detect)	DSB347	123240	32
IFSF	LON (TP/FT-10)	DCB449 + Kit422	133319 135898	16

Protocols	Interface Type	HIM	Stock No.	Devices /Port
Lemis DC-400	RS485	DSB453	133768	16
Petrovend4	RS232 (with carrier detect)	DSB347	123240	32
	RS232 (3-wire)	DSB457	133845	
Struna-M	RS232 (with carrier detect)	DSB347	123240	16
	RS232 (3-wire)	DSB457	133845	
Veeder-Root	RS232 (with carrier detect)	DSB347	123240	16
	RS232 (3-wire)	DSB457	133845	

3.3 Terminal Protocols and HIMs

List of terminal protocols and associated HIMs

A complete list of the Outdoor Payment Terminal (OPT) protocols and the HIMs associated with the protocols currently supported by the PSS 5000 are shown in the table below:

Protocols	Interface Type	HIM	Stock No.	Devices/Port
ACG Mifare RFID Reader	RS485	DSB453	133768	16
		DSB501	142012	
AutoTank ATCL	Current Loop, 10/20mA	DSB416	129767	8
Banksys	Current Loop, 10/20mA	DSB411	128576	1
Codab C-bus	2-wire C-bus	DSB340	121964	16
	RS485	DSB453	133768	
Doms FlexPay	Ethernet	n/a	n/a	16
Doms POS	Serial	Depends on terminal HW& interface type		
	Ethernet	n/a	n/a	99
Doms Standard Terminal	Current Loop, 50mA	DSB338	Replaced	16
	Current Loop, 45mA	DSB492	140042	
		DSB511	142390	
	RS232 (with carrier detect)	DSB347	123240	
EIN DAC	Current Loop, 20mA	DSB476	137571	31
Generic CRIND	Current Loop, 45mA	DSB492	140042	16
		DSB511	142390	
Gilbarco SPOT	Ethernet	n/a	n/a	16
Octane 2000 Tag	RS232	DSB347	123240	99
		DSB457	133845	
Orpak VIT	RS485	DSB453	133768	255
PetroPay 4000	Current Loop, 50mA	DSB338	Replaced	16
	Current Loop, 45mA	DSB492	140042	
		DSB511	142390	
POSTEC Prism OPT	Ethernet	n/a	n/a	6
POSTEC TVD Tag Reader	RS485	DSB501	142012	32
Prowalco Pump Tag	Current Loop, 45mA	DSB492	140042	16
		DSB511	142390	
Prowalco Remote Tagging ZA-069 (IRIU)	Current Loop, 45mA	DSB492	140042	255
		DSB511	142390	
	Current Loop, 40mA	DSB503	142061	255
Tokheim DAC MPA V5	Ethernet	n/a	n/a	99

Protocols	Interface Type	HIM	Stock No.	Devices/Port
Tokheim Pump Tag	Current Loop, 20mA	DSB408	Replaced	16
		DSB520	143357	
Wayne CL Terminal	Current Loop, 40mA	DSB415	Replaced	Cards: 16 Notes: 4
	Current Loop, 30mA	DSB475	136841	
Wayne CL/EPS-42 Terminal	RS422 (with echo canceling)	DSB475	136841	16

3.4 Washing Machine Protocols and HIMs

Washing machine protocol and associated HIM The washing machine protocol and the HIM associated with it is shown in the table below:

Protocols	Interface Type	HIM	Stock No.	Devices/Port
IFSF Car wash	LON (TP/FT-10)	DCB449 + Kit422	133319 135898	16

3.5 Vapor Recovery Monitoring Controller Protocols and HIMs

Vapor recovery protocol and associated HIM The vapor recovery protocol and the HIM associated with it is shown in the table below:

Protocols	Interface Type	HIM	Stock No.	Devices/Port
Fafnir DVRC	RS485	DSB453	133768	32

3.6 Price Pole Protocols and HIMs

List of price display protocols and associated HIMs

A complete list of the price display protocols and the HIMs associated with the protocols currently supported by the PSS 5000 are shown in the table below:

Protocols	Interface Type	HIM	Stock No.	Devices/Port
Digitekno	Current Loop, 10/20mA	DSB411	128576	4
EIN	RS485	DSB453	133768	8
		DSB501	142012	
IBIS	RS232 (with carrier detect)	DSB347	123240	1
IFSF	LON (TP/FT-10)	DCB449 + Kit422	133319 135898	255
Linetron	RS232 (with carrier detect)	DSB347	123240	1
MKS ER 3/2	2-wire, 12V/25mA	DMB359	Replaced	16
	2-wire, 12V/25mA	DMB489	139024	
Nautica	RS485	DMB354	Replaced	8
		DMB506	142292	
PWM-InHouse-Ethernet	Ethernet	n/a	n/a	254
Scheidt & Bachmann T10/8	RS485	DMB354	Replaced	16
		DMB506	142292	
Tammerneon LED	Current Loop, 10/20mA	DSB411	128576	4
Totem	RS485	DSB337	Replaced	1
		DSB501	142012	
VDS	RS485	DSB501	142012	1
Wayne Marketer	RS232	DSB347	123240	1

3.7 Interface Types and HIMs

List of Interfaces with associated HIMs

The table below provides a complete list of the currently supported interface types and their associated HIMs. This list can be used to determine whether development for a new HIM is required when support for a new protocol is being planned.

Note: DSB modules are used for protocols that have addressable devices. DMB modules are used for protocols that have non-addressable devices.

Note: When more than one module is available for an interface type, use the hyperlink to look at the module properties for more information. Normally, the only difference is the number of connectors present on the modules.

Interface Type		Modules	
		Addressable	Non-addressable
2-wire C-bus		DSB340	n/a
2-wire, active pull down		n/a	DMB514
4-wire (diff. interface with auto-watch)		n/a	DMB512
Current Loop	4-wire, 10mA (active)	n/a	DMB450
	4-wire, 10/20mA	DSB411 DSB416	n/a
	4-wire, 30mA	DSB475	n/a
	4-wire, 40mA (active)	DSB503	n/a
	4-wire 24V/50mA (active)	n/a	DMB426
	3-wire, 20mA (passive)	DSB520	n/a
	3-wire, 20mA (active)	DSB461 DSB476	n/a
	2-wire, 20mA (passive)	DSB486	DMB507
	2-wire, 20mA (active)	DSB517	DMB425
	2-wire, 12V/25mA (active)	n/a	DMB489
	2-wire, 30mA (active)	DSB423 DSB510	n/a
	2-wire, 45mA (active)	DSB378 DSB492 DSB511	n/a
Digital I/O		DSB451	n/a
Ethernet		n/a	n/a
LON		DCB449 + Kit422	n/a

Interface Type		Modules	
		Addressable	Non-addressable
RS232	Tokheim special	DSB357	n/a
	9-pin with carrier detect	DSB347	n/a
	3-wire	DSB457	n/a
	Full handshake (modem interface)	n/a	DMB454
RS422	–	DSB352	n/a
	with echo canceling	DSB475	n/a
RS485	–	DSB453 DSB501	DMB506
	(with grade select)	DSB348	n/a
	+ 5V supply	DSB521	n/a
S & B Proprietary		n/a	DMB443

3.8 HIM Details and Interface Types

List of HIMs with hardware details and interfaces

A complete list of HIMs and the interface types associated with each HIM is shown in the table below:

Note: The maximum number of devices supported by the connection between the DMB port on the CPU board and the DMB module(s) is 16.

Note: The maximum number of devices supported by the connection between the DSB port on the CPU board and the DSB module(s) is dependent on the protocol (see *Devices/Port* in the *Protocols and HIMs* tables).

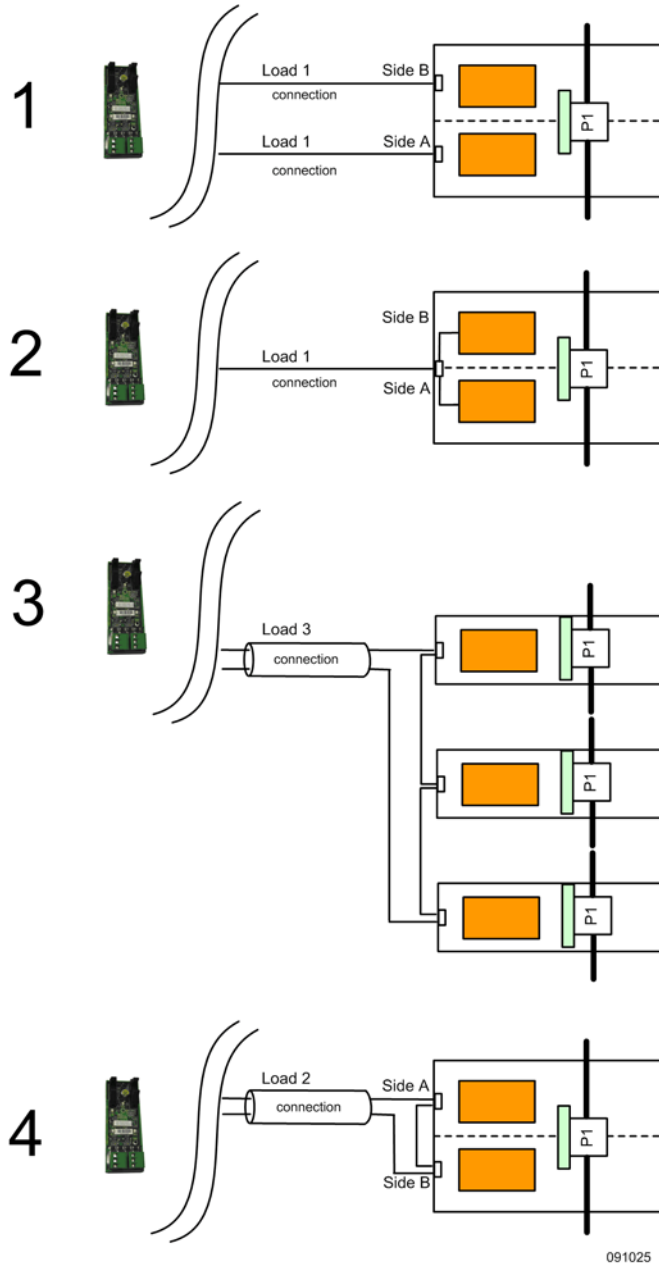
Note: The hardware configuration of dispensers with multi-point fuelling points affect the number of HIM connections required by the fuelling point. See [‘Hardware configurations and interface connectivity’ on page 29](#).

HIM	Stock No.	No. of connectors	Max. no. of devices/connection	Width (in module units)	Interface type
DCB modules					
DCB449 + Kit422	133319 135898	16	–	2 n/a	LON (TP/FT-10)
DMB modules					
DMB425	130742	4	1	2	Current Loop, 2-wire, 20mA (act.)
DMB426	130745	4	1	2	4-wire 24V/50mA (act.)
DMB443	132060	4	1	2	S & B Proprietary
DMB450	133395	4	1	2	Current Loop, 4-wire, 10mA (act.)
DMB454	133771	1	1	2	RS232 (modem interface)
DMB489	139024	8	1	2	Current Loop, 2-wire 12V/25mA (act.)
DMB506	142292	4	1	2	RS485
DMB507	142346	8	1	2	Current Loop, 2-wire, 20mA (pas)
DMB512	142546	4	1	2	4-wire, Diff. Interface with auto-watch
DMB514	143076	8	1	2	2-wire, (act.)
DSB modules					
DSB340	121964	1	p ²	1	2-wire C-bus
DSB347	123240	1	1	1	RS232 (with carrier detect)
DSB348	123789	2	p ²	2	RS485 (grade select)
DSB352	125775	4	1	2	RS422
DSB357	126879	1	1	1	RS232

HIM	Stock No.	No. of connectors	Max. no. of devices/connection	Width (in module units)	Interface type
DSB378	129251	4	4	2	Current Loop, 2-wire, 45mA (act)
DSB411	128576	1	1	1	Current Loop, 4-wire, 10/20mA
DSB416	129767	4	1	2	Current Loop, 4-wire, 10/20mA
DSB423	130250	4	4 ²	2	Current Loop, 2-wire, 30mA (act.)
DSB451	133765	8	1	2	(8 channel pump light alarm)
DSB453	133768	4	P ²	2	RS485
DSB457	133845	4	1	2	RS232 (3-wire)
DSB461	134791	4	4 ²	2	Current Loop, 3-wire, 20mA (act.)
DSB469	137734	–	–	2	(Memory module)
DSB475	136841	4	4 ²	2	Current Loop, 4-wire, 30mA
					RS422 (with echo canceling)
DSB476	137571	16	4	2	Current Loop, 3-wire, 20mA (act.)
DSB486	139212	8	1	2	Current Loop, 2-wire, 20mA (pas)
DSB492	140042	8	1	2	Current Loop, 2-wire, 45mA (act)
DSB501	142012	2	P ²	1	RS485
DSB503	142061	1	16	1	Current Loop, 4-wire, 40mA (act.)
DSB510	142390	4	1	1	Current Loop, 2-wire, 30mA (act.)
DSB511	142464	4	1	1	Current Loop, 2-wire, 45mA (act)
DSB517	143186	8	1	2	Current Loop, 2-wire, 20mA (act.)
DSB520	143357	4	1	2	Current Loop, 3-wire, 20mA (pas)
DSB521	143437	4	1	2	RS485, +5V supply
2: It is recommended that only 1 device is used on each connection P: The maximum number of devices/connection is dependent on the protocol baud rate used					

Hardware configurations and interface connectivity

Multi-point devices, such as multi-point fuel dispensers, may have their hardware configured in one of several different ways. Depending on how they are configured they load the connection between the HIM and device differently. This is illustrated below using dispensers:



Example 1 represents a dual-sided dispenser, where each dispenser is a device and each device requires a connection to the HIM. In this situation, the load on each HIM connection is 1 device.

Example 2 represents a dual-sided dispenser that uses a single HIM connection. Although this device contains 2 dispensers, the hardware configuration means that the load on the single HIM connection is 1 device.

Example 3 represents 3 single-sided dispensers where the current loop interface is looped together in a daisy-chain configuration. In this configuration, the load on the HIM connection is 3 devices.

Example 4 represents a situation similar to Example 3, but the daisy-chain oc-

curs inside the dual-sided dispenser. In this situation, the load on the HIM connection is 2 devices.

3.9 Discontinued HIMs and Possible Replacements

List of HIMs no longer available

If you already have HIMs in your system which do not appear in the Protocol/HIM lists, then it may be because they are no longer available. This list contains those modules that have been discontinued and, where possible, the name of a replacement HIM.

DSB modules		DMB modules	
Discontinued	Replacement	Discontinued	Replacement
DSB337	DSB501	DMB354	DMB506
DSB338	DSB492	DMB359	DMB489
DSB339	DSB475	DMB417	none
DSB341	none	DMB418	DMB507
DSB356	DSB517	DMB430	DMB512
DSB358	none	DMB431	DMB507
DSB362	none	DMB452	DMB512
DSB363	none	DMB477	none
DSB378	DSB492		
DSB415	DSB475		
DSB408	DSB520		
DSB433	none		
DSB455	DSB476		
DSB459	none		

4 PSS 5000 CPU Board and Cabinet Specifications

Overview

These hardware specifications are provided in the following topics:

- [‘4.1 PSS 5000 CPU Boards’ on page 31](#)
- [‘4.2 PSS 5000 Cabinets’ on page 33](#)
- [‘4.3 System Versions’ on page 33](#)

4.1 PSS 5000 CPU Boards

Selecting the correct CPU Board

To select the correct CPU board, it is necessary to consider which forecourt devices are present and the applications that require support. The table below provides a list of basic functions that are supported by **CPB505** and **CPB508**.

Note: **CPB508** is no longer in production.

Functions	
Doms POS Protocol	Basic functions: <ul style="list-style-type: none"> • Dispense Control – for all protocols • Price Display Control – for all protocols • Wet Stock Control – for all protocols
Doms Host Protocol	Basic versions: <ul style="list-style-type: none"> • site_sta.xml • site_rep.xml (max. 3 reports) • newdeliv.xml (max. 20 deliveries) • newevent.xml (max. number depends on type of events, which vary in size. max. size is 20kBytes) • new_bor.xml (max. 1500 records)

If the site is restricted to the functions listed above and no additional functions are required, or expected, then either the **CPB505** or **CPB508** is sufficient.

However, if applications that use additional functions, for example Back Office Record storage and Vapor Recovery Monitoring, are required, or future developments will demand similar applications, then it is necessary to select the **CPB509**.

PSS 5000 CPU Board specifications

The product specifications for the CPU boards of the PSS 5000 are presented in the table below:

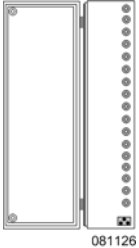
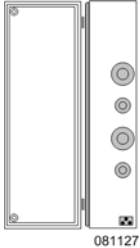
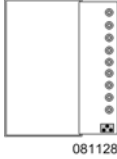
Parameters	CPU Board Version	
	CPB505	CPB509
CPU Specs		
CPU Type	ColdFire MCF5307	ColdFire MCF5307
CPU Bus (bit)	16	32
Flash (MB)	8	16
SRAM (MB)	2	4
Backup Battery	14 days	14 days
Real-time Clock	Yes	Yes
Port Types and Number		
DSB	3	5 ¹
DMB	1	3 ¹
Ethernet	1	1
Service (RS232)	0 ²	1
Extension Socket (LON - FTT10)	1 (option)	2 (option)
1 : one of the ports is a high-speed port 2: The boot program only supports PPP on the Service port. Software uploads on boards with no Service port must take place via the Ethernet port.		

4.2 PSS 5000 Cabinets

PSS 5000 cabinet types and specifications

The product specifications for the PSS 5000 cabinet are presented in the table below:

Note: The weights given are for the basic cabinet with a power supply and CPU board (HIMs are not included).

	Cabinet Version		
	Standard - cable  081126	Standard - conduit  081127	Compact  081128
Dimensions: (HxWxD)	600x200x124 mm (23.5 x 7.9 x 4.9")	600x200x124 mm (23.5 x 7.9 x 4.9")	363x200x100 mm (14.3 x 7.9 x 3.9")
Max. number of single-width modules:	14	14	6
Material:	Metal	Metal	Metal
Weight:	8kg (17.6 lbs)	8kg (17.6 lbs)	5kg (11 lbs)
CE + UL Approved:	Yes	Yes	Yes
Hinged door:	Yes	Yes	Yes
No. of grommets:	17 (cables)	4 (conduits)	9 (cables)

4.3 System Versions

PSS 5000 system versions

The table below shows the CPU Board version, cabinet version and power supply version combinations. Each combination has its own Doms stock number:

	Std-cable cabinet	Std-conduit cabinet	Compact cabinet	
	230V	120V	120V	230V
CPB505	141994	142318	142424	142423
CPB509	140925	140232	–	–

5 PSS 5000 Accessories List

Cables for the PSS

The cables required to make the necessary connections associated with the PSS 5000 are listed in the table below:

Cable Description	Stock Number
Doms Standard cables	
Standard cables	For new PSS 5000 configurations, Doms supplies correct cable types and lengths for HIMs installed.
DSB cables	
DSB No.23 (DSB universal), 80mm	126678
DSB No.33 short, 200mm	135694
DSB No.34 medium, 430mm	135695
DSB No.35 long, 630mm	135696
DMB cables	
DMB No. 26 DMB (Universal), 50mm	126681
DMB No.36 short, 180mm	135697
DMB No.37 medium, 280mm	135698
DMB No.38 long, 480mm	136599
DSMB No.41, DSMB short, 230mm	138492
DSMB No.39, DSMB long, 710mm	135700
Internal LON, 50mm	139335
External RJ45 Ethernet (X-cable), 5m	136338
External RJ45 Ethernet (patch), 1m	134958
External RJ45 Ethernet (patch), 2m	134959
External RJ45 Ethernet (patch), 5m	133598
External 9P Service, null-modem, 3m (PSS to PC)	135900
External 9P Service, null-modem, 5m (PSS to PC)	136452
Cable Relief 14mm	135788

Miscellaneous
accessories for PSS

Accessories for the PSS 5000 that have not been listed by type are listed in the table below:

Accessory Description	Stock Number
Hardware Sealing Plug (W&M)	137139
VRM Alarm Panel (Console CSL228-001)	138613
Extension Rail for HIMs (door mount in Std. cabinet only – for up to 5 single- width modules)	138735

6 Reference Documents

List of pump protocol interface notes and installation drawings for modules

The information below provides a list of the pump protocols currently supported by the PSS 5000 and the document number of the Interface Note for each protocol. In addition to this, each HIM associated with each protocol is listed and the document number for the installation drawing is given:

Protocols	Interface Notes /protocol/itno/	HIMs	Drawings /<mod. no.>/indr/
Adast Easycall	802946/--	DSB453	802800/--
		DSB501	804407/--
Aplab Serial protocol	803988/--	DSB453	802800/--
		DSB501	804407/--
Auto Tank ATCL	800089/--	DSB416	800190/--
Avery Single Hose	804001/--	DSB453	802800/--
		DSB501	804407/--
BP Standard Protocol	802302/--	DSB347	800696/--
Bennett	804878/--	DMB425	800043/--
Cetil EAS1	804325/--	DSB453	802800/--
		DSB501	804407/--
Dong Hwa Prime	804471/--	DSB352	802397/--
Dresser Wayne SC82/SC86	800654/--	DSB423	802658/--
		DSB453	802190/--
		DSB475	802976/--
		DSB510	804541/--
Droher-Condohr Protocol	800373/--	DSB337	802773/--
		DSB501	804407/--
Droher-Current Loop Protocol	804286/--	DSB517	804897/--
Dunclare	800349/--	DMB431	800111/--
EIN	802165/--	DSB476	803177/--
GC21 XP	804848/--	DSB517	804897/--
Gascomm	804790/--	DMB514	804840/--
Gilbarco 2-wire	800090/--	DSB492	803807/--
		DSB338	802795/--
		DSB453	802800/--
		DSB501	804407/--
Hengshan HS01	804705/--	DMB450	800678/--

Protocols	Interface Notes /protocol/itno/	HIMs	Drawings /<mod. no.>/indr/
IFSF	800555/--	DCB449 + Kit422	800673/--
Koppens EPS-3/5	800350/--	DMB512	804644/--
Larsen & Toubro Z-line	803633/--	DSB453	802800/--
		DSB501	804407/--
Larsen & Toubro MPD/QUAD	803635/--	DSB453	802800/--
		DSB501	804407/--
Logitron Pumalan	802652/--	DSB461	802457/--
Midco	803651/--	DSB453	802800/--
		DSB501	804407/--
MKS ER 3/2 (ER3/ER4)	800413/--	DMB489	803593/--
Nara/Topaz	804731/--	DSB453	802800/--
Novotec	804991/--	DSB521	804979/--
Nuovo Pignone	800352/--	DMB426	802793/--
		DSB453	802800/--
		DSB501	804407/--
Petrotec	803352/--	DMB512	804644/--
Prompribor LIVNY	804921/--	DMB425	800043/--
Prowalco SPDC-1, MPDC-1	802292/--	DSB492	803807/--
RongXing MPD	804095/--	DSB352	802397/--
Satam 008	800550/--	DMB425	800043/--
Satam 82D (82, SEV2, SEV4)	800351/--	DMB425	800043/--
Scheidt & Bachmann T01/T02	800410/--	DMB443	802794/--
Scheidt & Bachmann T10/8	800337/--	DMB354	800492/--
Schlumberger IVPE/M3000	802295/--	DMB425	800043/--
Schwelm ZSR83	800188/--	DMB431	800111/--
Seetax TK	800682/--	DMB450	800678/--
South West MLPC3	803537/--	DSB486	803689/--
Tatsuno (Doms MPI)	800336/--	DSB453	802800/--
		DSB501	804407/--
Tatsuno-Benc PDEX	804784	DSB453	802800/--
TIM	805039	DSB453	802800/--
		DSB501	804407/--

Protocols	Interface Notes /protocol/itno/	HIMs	Drawings /<mod. no.>/indr/
Tatsuno Sunny Ex	803564/--	DSB453	802800/--
		DSB501	804407/--
Tokheim	800656/--	DSB357	800155/--
		DSB520	804933/--
Wayne Autocourt/Ferranti	800364/--	DSB517	804897/--
Wayne Dart	800735/--	DSB453	802800/--
		DSB501	804407/--
Wayne Europe/Ljungmans (Current Loop)	800091/--	DSB475	802976/--

List of Interface Notes for TGS and installation drawings for modules

The information below provides a list of the TGS protocols currently supported by the PSS 5000 and the document number of the Interface Note for each protocol. In addition to this, each HIM associated with each protocol is listed and the document number for the installation drawing is given:

Protocols	Interface Notes /protocol/itno/	HIMs	Drawings /<mod. no.>/indr/
4Tech Fuelcom 501	803260/--	DSB347	800696/--
		DSB457	802222/--
B Control A (CMS)	802392/--	DSB347	800520/--
		DSB457	802222/--
Egemin LGS2	802394/--	DSB347	800696/--
		DSB457	802222/--
Enraf STIC 867 (GPU)	802395/--	DSB347	800696/--
		DSB457	802222/--
Fafnir Visy-Quick	804018/--	DSB347	800696/--
		DSB453	803455/--
		DSB457	802222/--
Hectonic H-Protocol	803353/--	DSB347	800696/--
		DSB457	802222/--
Hectonic HLS Protocol	805109/--	DSB347	800696/--
IFSF	803259/--	DCB449 + Kit422	800673/--
Lemis DC-400 (density)	804476/--	DSB453	802800/--
Petrovend 4	802393/--	DSB347	802494/--
		DSB457	802222/--

Protocols	Interface Notes /protocol/itno/	HIMs	Drawings /<mod. no.>/indr/
Struna-M	803961/--	DSB347	800696/--
		DSB457	802222/--
Veeder-Root	802610/--	DSB347	800520/--
		DSB457	802222/--

List of Interface Notes for Price Poles and installation drawings for modules

The information below provides a list of the price pole protocols currently supported by the PSS 5000 and the document number of the Interface Note for each protocol. In addition to this, each HIM associated with each protocol is listed and the document number for the installation drawing is given:

Protocols	Interface Notes /protocol/itno/	HIMs	Drawings /<mod. no.>/indr/
Digitekno	803652/--	DSB411	803686/--
EIN	804317/--	DSB453	802800/--
		DSB501	804407/--
IBIS	804664/--	DSB347	800696/--
IFSF	802667/--	DCB449 + Kit422	800673/--
Linetron	804752/--	DSB347	800696/--
MKS ER 3/2 (ER3/ER4)	800413/--	DMB489	803593/--
Nautica	804486/--	DMB506	804490/--
PWM In-house Ethernet	803647/--	n/a	n/a
Scheidt & Bachmann T10/8	800337/--	DMB506	804490/--
Tammerneon LED	803160/--	DSB411	802798/--
Totem	803565/--	DSB501	804407/--
VDS	804766/--	DSB501	804407/--
Wayne Marketer	804263/--	DSB347	800696/--

List of Interface Notes for Terminals and installation drawings for modules

The information below provides a list of the payment terminal protocols currently supported by the PSS 5000 and the document number of the Interface Note for each protocol. In addition to this, each HIM associated with each protocol is listed and the document number for the installation drawing is given:

Protocols	Interface Notes /protocol/itno/	HIMs	Drawings /<mod. no.>/indr/
ACG Mifare RFID Reader	803980/--	DSB453	802800/--
		DSB501	804470/--
AutoTank ATCL	800083/--	DSB416	800190/--
Banksys	n/a	DSB411	802798/--

Protocols	Interface Notes /protocol/itno/	HIMs	Drawings /<mod. no.>/indr/
Codab C-bus	802929/--	DSB340	800216/--
		DSB453	802800/--
Doms FlexPay	n/a	n/a	n/a
Doms POS	n/a	n/a	n/a
Doms Standard Terminal	800074/--	DSB347	800696/--
		DSB492	803807/--
		DSB511	804598/--
EIN DAC	803232/--	DSB476	804490/--
Generic CRIND	n/a	DSB492	803807/--
		DSB511	804598/--
Gilbarco SPOT	n/a	n/a	n/a
Octane 2000 Tag	804475/--	DSB347	800696/--
		DSB457	802222/--
Orpak VIT	804337/--	DSB453	802800/--
PetroPay 4000	800075/--	DSB492	803807/--
		DSB511	804598/--
POSTEC Prism OPT	804772/--	n/a	n/a
POSTEC TVD Tag Reader	805027/--	DSB501	804470/--
Prowalco Pump Tag	804291/--	DSB492	803807/--
		DSB511	804598/--
Prowalco Remote Tagging	800320/--	DSB492	803807/--
		DSB503	804432/--
		DSB511	804598/--
Tokheim DAC MPA V5	803392/--	n/a	n/a
Tokheim Pump Tag	804348/--	DSB520	804933/--
Wayne CL Terminal	803594/--	DSB475	802976/--
Wayne CL/EPS-42 Terminal	804814/--	DSB475	802976/--

7 Revision Information

Revision history

This documentation has changed as follows:

Rev.	Date	Description of Changes
00	Aug. 01, 2008	First version
01	Sept. 17, 2008	The following changes have been made: <ul style="list-style-type: none"> • Included 2 additional protocols: Schwelm ZSR83 and South West MLPC3 • Added new module DSB510 • Replaced term P/N with Stock Number • Included new cabinet option
02	Nov. 07, 2008	The following changes have been made: <ul style="list-style-type: none"> • Added new module DSB378 • Added a note about the restricted use of DSB378 and DSB423 • Added new module DMB506 as a replacement for DMB354 • Moved DMB354 to the discontinued modules list • Added new module DSB511 • Added new manufacturers: Labko, Omntec, Incon and OPW
03	Nov. 27, 2008	The following changes have been made: <ul style="list-style-type: none"> • Added a new section for Reference Documents • Added a list of Interface Notes for device protocols
04	Feb. 04, 2009	The following changes have been made: <ul style="list-style-type: none"> • Added new module DMB507 as a replacement for DMB431 • Added Schwelm ZSR83 protocol to Schlumberger pumps • Updated cabinet specifications with illustrations of cabinets
05	April 17, 2009	The following changes have been made: <ul style="list-style-type: none"> • Added new module DMB512 as a replacement for DMB452 • Added Able to the price pole manufacturer's list • Added Tokheim Hengshan to pump manufacturer's list • Added Hengshan HS01 protocol
06	June 04, 2009	The following changes have been made: <ul style="list-style-type: none"> • Added Linetron to price pole manufacturer's list • Added IBIS and Linetron to price pole protocols • Added IBIS and Linetron to list of Interface Notes for price pole protocols • Revision history moved from the front to the back of the document
07	June 24, 2009	The following changes have been made: <ul style="list-style-type: none"> • Updated the PSS 5000 system versions table • Corrected stock numbers for DSB511 and DMB512

Rev.	Date	Description of Changes
08	July 29, 2009	The following changes have been made: <ul style="list-style-type: none"> • Added Nara/Topaz to pump protocols • Added Nara/Topaz to list of Interface Notes for pump protocols
09	Sept. 15, 2009	The following changes have been made: <ul style="list-style-type: none"> • Added VDS to price pole protocols • Added VDS to list of Interface Notes for price pole protocols • Added information about device hardware configurations affecting loading on the interface connections between the HIM and the device
10	Nov. 2, 2009	The following changes have been made: <ul style="list-style-type: none"> • Added Dresser-Wayne to terminal manufacturers list • Added Wayne CL/EPS-42 Terminal to terminals protocol list • Added Tatsuno-Benc to pump protocols list • Removed DSB363 • Reorganized Interface Type and HIMs table
11	Dec. 15, 2009	The following changes have been made: <ul style="list-style-type: none"> • Added Orpak and Postec to terminal manufacturers list. • Added Orpak VIT and Postec Prism to the Terminal Protocols and HIMs list. • Updated the information for the VDS protocol in Price Pole Protocols and HIMs
12	Mar. 24, 2010	The following changes have been made: <ul style="list-style-type: none"> • New information about selecting the correct CPB has been included in CPU Board and Cabinet Specifications section. • Added VDS to the price pole manufacturers list • Added Galileo GC21 XP to pump protocols list • Added DMB514 module to DMB HIM list • Updated Reference documents list with Galileo Interface Notes details • Added 2-wire, active pull down to Interface Types table
13	Sept. 13, 2010	The following changes have been made: <ul style="list-style-type: none"> • Changed module used for Veeder-Root TGS in worked example to DSB347 • Added Inst / Instrumentointi to pump manufacturers list • Added Prompibor to pump manufacturers list • Added Banksys to terminal manufacturers list • Added Prompibor LIVNY protocol to pump protocols list • Added Gascomm proocol to pump protocols list • Added Banksys protocol to terminal protocols list

Rev.	Date	Description of Changes
14	Nov. 12, 2010	The following changes have been made: <ul style="list-style-type: none"> • Added Novotec protocol to Gilbarco pump manufacturers list • Added Novotec protocol to pump protocols list • Added RS485, + 5V supply to Interface Type list • Added DSB521 to HIM Details list • Added Novotec Interface Note and installation drawing in Reference Documents list • Changed protocol name from Galileo GC21 XP to the generic name GC21 XP • Corrected the alphabetical order of items in the lists
15	Jan. 25, 2011	The following changes have been made: <ul style="list-style-type: none"> • Added new module DSB520 as a replacement for DSB408 • Minor text corrections
16	March 14, 2011	The following changes have been made: <ul style="list-style-type: none"> • All reference to Doms CWI has been removed • Added POSTEC TVD tag reader protocol to terminal protocols list
17	May 9, 2011	The following changes have been made: <ul style="list-style-type: none"> • Added new module DSB517 as a replacement for DSB356 • Added Bennett, Nara and TIM to pump manufacturers list • Added Bennett protocol and TIM protocol to pump protocols list • Added START Italiana to TGS manufacturers list
18	August 23, 2011	The following changes have been made: <ul style="list-style-type: none"> • Added Hectronic HLS to TGS manufacturers list • Added Hectronic HLS to TGS protocols list

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