Australian Government
Department of Industry, Science, Energy and Resources

National Measurement Institute

36 Bradfield Road, West Lindfield NSW 2070

Supplementary Certificate of Approval

NMI S787

Issued by the Chief Metrologist under Regulation 60
of the
National Measurement Regulations 1999

This is to certify that an approval for use for trade has been granted in respect of the instruments herein described.

Orbis Tech model Orbis POS Control System for Fuel Dispensers for Motor Vehicles

submitted by Orbis Tech Limited
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United Kingdom

NOTE: This Certificate relates to the suitability of the pattern of the instrument for use for trade only in respect of its metrological characteristics. This Certificate does not constitute or imply any guarantee of compliance by the manufacturer or any other person with any requirements regarding safety.

This approval has been granted with reference to document NMI R 117, *Measuring Systems for Liquids Other than Water*, dated June 2011.

This approval becomes subject to review on 1/02/25, and then every 5 years thereafter.

DOCUMENT HISTORY

Rev	Reason/Details	Date
0	Pattern provisionally approved – certificate issued	07/02/20

CONDITIONS OF APPROVAL

General

Instruments purporting to comply with this approval shall be marked with pattern approval number 'NMI S787' and only by persons authorised by the submittor.

Instruments purporting to comply with this approval and currently marked 'NMI PS787' may be re-marked 'NMI S787' but only by persons authorised by the submittor.

It is the submittor's responsibility to ensure that all instruments marked with this approval number are constructed as described in the documentation lodged with the National Measurement Institute (NMI) and with the relevant Certificate of Approval and Technical Schedule. Failure to comply with this Condition may attract penalties under Section 19B of the National Measurement Act and may result in cancellation or withdrawal of the approval, in accordance with document NMI P 106.

Special

Certain aspects of this instrument (in particular transaction record printing formats) are able to be configured by the user. Whilst NMI believes that acceptable formats can be achieved for typical basic sales modes, it is also possible for the instrument to be configured to produce unacceptable formats, and use of some formats may be inappropriate for different sales modes. It is the responsibility of the user to ensure that acceptable and appropriate formats are used in any particular situation.

Signed by a person authorised by the Chief Metrologist to exercise their powers under Regulation 60 of the *National Measurement Regulations 1999*.

Darryl Hines
Manager
Policy and Regulatory Services

TECHNICAL SCHEDULE No S787

1. Description of Pattern approved on 07/02/20

An Orbis Tech model Orbis POS control system to provide an attended self-service facility for compatible (#) approved fuel dispensers for motor vehicles. The fuel dispensers are controlled by the Orbis POS system through the DOMS model PSS5000 Controller (as described in approval NMI S748).

1.1 Key Features

- The system is approved for environmental class A, a climate-controlled environment between 5°C and 30°C.
- The system can provide a self-serve arrangement for compatible (#) approved fuel dispensers.
- The system allows post-payment or pre-payment deliveries; in the latter case the fuel dispenser must incorporate a pre-set device.
- The system allows up to two transactions per fuel dispenser, i.e. current sale on the fuel dispenser and a stored transaction.
- The system may facilitate mixed-mode operation for unattended self-service mode. A control system that is approved for unattended self-service operation must be interfaced to the Orbis POS control system for operation in this mode.
- Additional POS consoles may be interfaced for multi-attended self-serve operation.
- The nominal supply voltage is 240 V AC.

(#) 'Compatible' is defined to mean that no additions/changes to the hardware/software specified in this approval are required for satisfactory operation of the system.

1.2 System Description

The Orbis Tech model Orbis POS system (Figure 1) comprises:

(i) Point of Sale (POS) Console

The Orbis POS point of sale console comprises a HP model RP9 or equivalent (*) PC-based device using a Microsoft Windows operating system running Orbis POS version 6.x.x.x software. The software version number in the top right corner of the operators display.

(ii) Fuel Dispenser Controller

A DOMS PSS5000 controller and PIPI display as described in the documentation of approval NMI S748, provide interface and data acquisition between the fuel dispensers and the Point of Sale console and allow the recall of the stored transactions under power failure condition.

(iii) Uninterruptible Power Supply (UPS)

A UPS unit that supports USB/HID power device class standard must be included to provide operation under power failure condition. The UPS is interfaced to the DOMS PSS5000 controller as described in the documentation of approval NMI S748.

(iv) Electronic Indications

The HP model RP7 POS console has an integral touch sensitive display to provide an indication for the operator (Figure 2).

A HP model LD220-HP 2 line LCD display or equivalent (*) is connected to the Point of Sale Console and provides an indication for the customer (Figure 3).

(v) Printing Devices

An Epson model TM-T88V receipt printer or equivalent (*) is connected to the POS console. A typical record is shown in Figure 4.

(*) 'Equivalent' is defined to mean other proprietary equipment of the same or better specifications requiring no changes to software for satisfactory operation of the complete system.

(vi) Additional System Facilities

In addition, the model Orbis POS control system may include point of sale facilities including cash drawers, a magnetic card or barcode reader and EFT facility. The facilities shall not interact with the console in a way that would cause an incorrect indication of the measured volume or price.

1.3 Checking Facilities

(i) Printer

The system monitors the condition of the receipt printer and if an error is detected or the printer is out of paper, a visual warning is displayed on the operators screen.

(ii) Uninterruptible Power Supply (UPS)

The PSS 5000 controller monitors the condition of the UPS and if an error condition is detected the controller will prevent the ability to authorise a stored transaction.

(iii) PIPI Display

If a connection to the PIPI display from the PSS 5000 controller is interrupted or an error occurs with the PIPI the controller will prevent the ability to authorise a stored transaction.

(iv) Customer Display

The Orbis POS system provides a visual segment checking facility for the 2 line customer display connected to the Point of Sale Console.

1.4 Descriptive Markings

The POS controller is marked in a clear and permanent manner, in one location, with the following information:

Submittor's name or mark	……..
Serial number or other unique identifier	……..
Year of manufacture	……..
Pattern approval number	NMI S787

1.5 Verification Provision

Provision is made for the application of a verification mark.

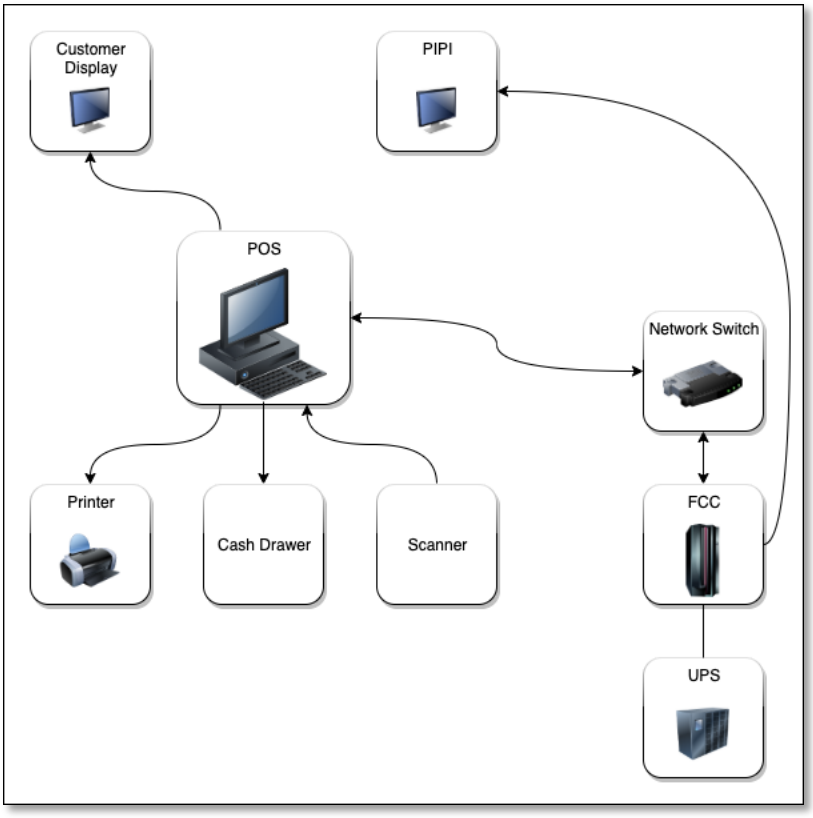
TEST PROCEDURE No S787

Instruments shall be tested in conjunction with any tests specified in the approval documentation for the instruments to which the pattern is connected, as appropriate, and in accordance with the National Instrument Test Procedures.

Points 2-6 are required at commissioning, thereafter they may be conducted at the discretion of the inspecting officer.

1. Check the Orbis POS software version number.
2. Check that the unit price change for the grade of fuel is implemented to the allocated fuel dispensers when they are available for authorisation.
3. Check that the system identifies, displays and prints the correct data for the corresponding number allocated to the fuel dispenser.
4. Authorise a delivery and check that the delivery details on the fuel dispenser agree with the receipt obtained.
5. Authorise a stored delivery and check that the delivery details of the first delivery to be stored in memory is printed on the audit printer.
6. A pre-paid delivery is only possible for fuel dispensers with pre-set facility. For a pre-paid delivery check that the amount displayed on the fuel dispenser equals the pre-paid amount
7. Check that when the PIPI is disconnected from the DOMS PSS5000 controller (simulation of fault), the fuel dispenser cannot be authorised for a second delivery unless the transaction for the first delivery has been completed.
9. Check that when the Uninterruptible Power Supply is disconnected from the DOMS PSS5000 (simulation of fault), the fuel dispenser cannot be authorised for a second delivery unless the transaction for the first delivery has been completed.

FIGURE S787 – 1

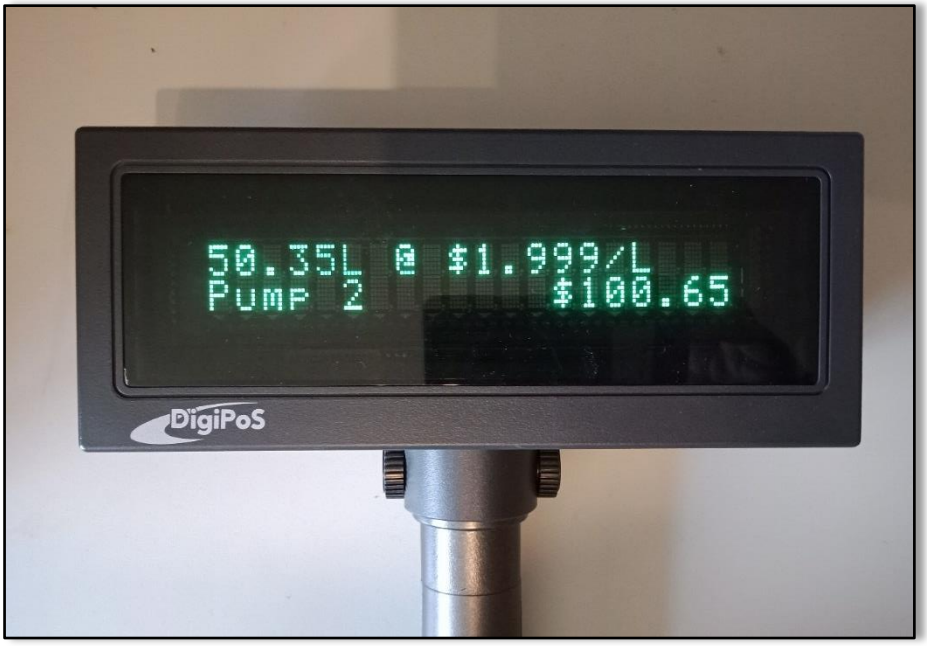


Point of Sale (POS) System

FIGURE S787 – 2

Typical Operator Display

FIGURE S787 – 3



Typical Customer Display

FIGURE S787 – 4

XYZ Petrol Station
111 Grove Rd
Palmerston North

30/01/2020 11:34
Transaction No.: 28
*** TAX INVOICE ***
GST INCLUSIVE
GST NO:
POS: 1
CASHIER: SiteMgr

Premium 96	$100.65
50.350L @ $2.00/L	
- Postpay Delivery on pump 2	
TOTAL	$100.65
Cash	$105.00
Rounding	-$0.05
Change	$4.30
1 = 15.00% GST. OF $100.65 =	$13.13

Thank You For Visiting

twitter.com/Orbis

A Typical Receipt

~ End of Document ~