Australian Government
National Measurement Institute
Bradfield Road, West Lindfield NSW 2070

Supplementary Certificate of Approval

NMI S555

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.

Beacon Business Systems Model On Q Point of Sale Self-serve Control System for Fuel Dispensers for Motor Vehicles

submitted by Pixen Pty Ltd
182 Scarborough Beach Road
Mount Hawthorn Perth WA

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 117-1, Measuring Systems for Liquids Other than Water, dated July 2004.

This approval becomes subject to review on 1/11/16, and then every 5 years thereafter.

DOCUMENT HISTORY

Rev	Reason/Details	Date
0	Pattern approved – certificate issued	27/10/11

CONDITIONS OF APPROVAL

General

Instruments purporting to comply with this approval shall be marked with approval number ‘NMI S555’ and only by persons authorised by the submittor.

Instruments incorporating a component purporting to comply with this approval shall be marked ‘NMI S555’ in addition to the approval number of the instrument, and 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.

Auxiliary devices used with this instrument shall comply with the requirements of General Supplementary Certificates No S1/0/A or No S1/0B.

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

TECHNICAL SCHEDULE No S555

1. Description of Pattern approved on 27/10/11

A Beacon Business Systems model On Q point of sale (POS) self-serve control system (Figure 1) to provide an attended self-service facility for compatible (#) approved fuel dispensers for motor vehicles. The fuel dispensers are controlled by the On Q POS system using the Postec PCC4 controller.

1.1 Field of Operation

- The On Q POS 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 approved Transponder Technology T5 series fuel dispensers, or other 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 fuel dispenser and a stored transaction
- The nominal supply voltage is 240 V AC.

1.2 System Description

The On Q Point of Sale control system (Figure 1) comprises:

(i) On Q Point of Sale (POS) Console

The On Q POS system point of sale console (Figure 2) is an IBM ThinkCentre MT-M A14 model PC or equivalent (*) using a Microsoft Windows operating system running On Q POS version V6.xx software.

The Dispenser (‘pump’) status indicates the condition of the fuel dispensers controlled by the Postec PCC4 controller (e.g. ‘In use’ or ‘On Hold’).

A Postect Intelligent Purchaser Indicator (PIPI) display is connected to the On Q POS console and acts as a customer display, updating automatically for the benefit of the purchaser, with the following information:

- The fuel dispenser ID number;
- The measured volume of fuel; and
- The total price.

(#) ‘Compatible’ is defined to mean that no additions/changes to hardware/software are required for satisfactory operation of the complete system including all checking facilities.

(*) ‘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 including all checking facilities.

(ii) Forecourt Controller

A Postec PCC4 controller (Figure 3) and PIPI as described in the documentation of approval NSC S398, provide interface and data acquisition between the fuel dispensers and control console and allow the recall of the stored transactions under power failure condition.

At least one PIPI is connected to the Postec PCC4 controller to allow the recall of the stored transactions under power failure condition. The button on the PIPI display allows manual recall of the following information:

- The fuel dispenser ID number;
- The status of the transaction (e.g. current sale transaction or stored transaction);
- The type of fuel
- The measured volume of fuel; and
- The total price.

The Postec units interface with the On Q POS console via serial RS232 connection.

(iii) Additional System Facilities

The On Q POS console may have include the following optional devices:

- Tipro programmable keyboard;
- An uninterruptible power supply; and
- A CBM model 1000 customer receipt printer (*). Typical sample receipts are shown in Figure 3.

In addition, the On Q POS self-serve control system may include other facilities including point of sale cash drawers, a magnetic card or barcode reader and electronic funds transfer (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.

(*) ‘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 including all checking facilities.

1.3 Checking Facilities

(i) Printer

The system monitors the condition of the receipt printer and a visual warning is displayed on the operator’s screen.

(ii) Customer Display

If the connection to the PIPI and the POS Console is interrupted or an error occurs with the PIPI, a visual warning is displayed on the operator’s screen.

(iii) PIPI Display

Memory authorisation must be disabled if the PIPI is disconnected from the PCC4 controller as per S398.

(iv) Communication

The system monitors the communication with the fuel dispensers and any error detected is displayed to the operator.

1.4 Verification Provision

The On Q POS self-serve control system self-serve control system has provision for the application of a verification mark.

1.5 Descriptive Markings

The On Q POS console is marked with the following data (shown below at right):

Manufacturer's name or mark	……..
Model number	……..
Serial number	……..
Pattern approval mark	NMI S555
Year of manufacture	……..
Environmental class	A

TEST PROCEDURE No S555

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 any relevant tests specified in the National Instrument Test Procedures.

Maximum Permissible Errors

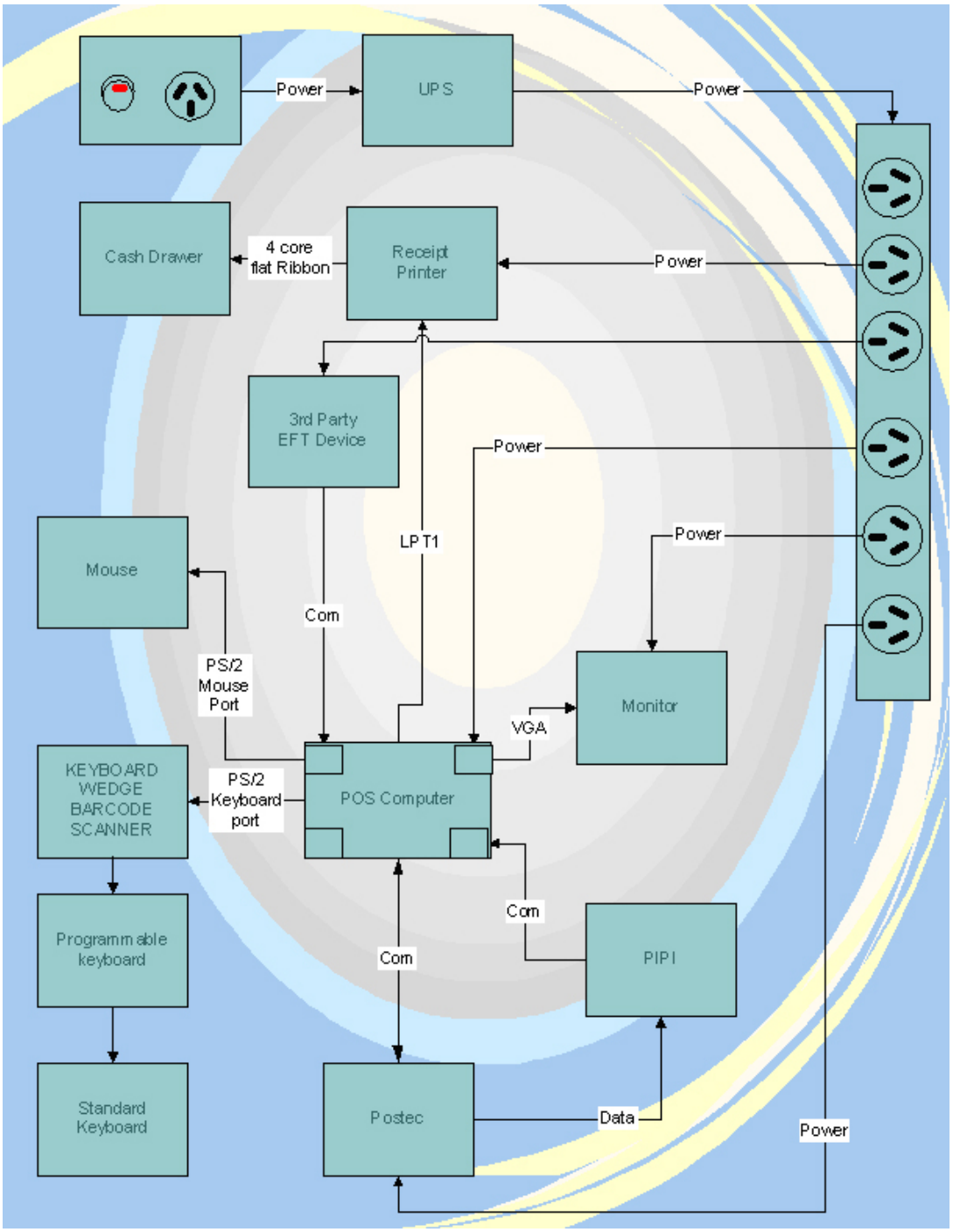
The maximum permissible errors applicable are those applicable to the fuel dispensers to which the instrument approved herein is fitted, as stated in the approval documentation for the fuel dispensers or in Schedule 1 of the *National Trade Measurement Regulations 2009*.

Tests

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

1. Check the model On Q POS software version number. The version number is displayed by highlighting entry 'A. Point of Sale' from the main menu and pressing function key 'F2'.
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. Check that when the PIPI is disconnected from Postec PCC4 controller (simulation of fault), the fuel dispenser cannot be authorised for a second delivery unless the transaction for the first delivery has been completed.

FIGURE S555 – 1

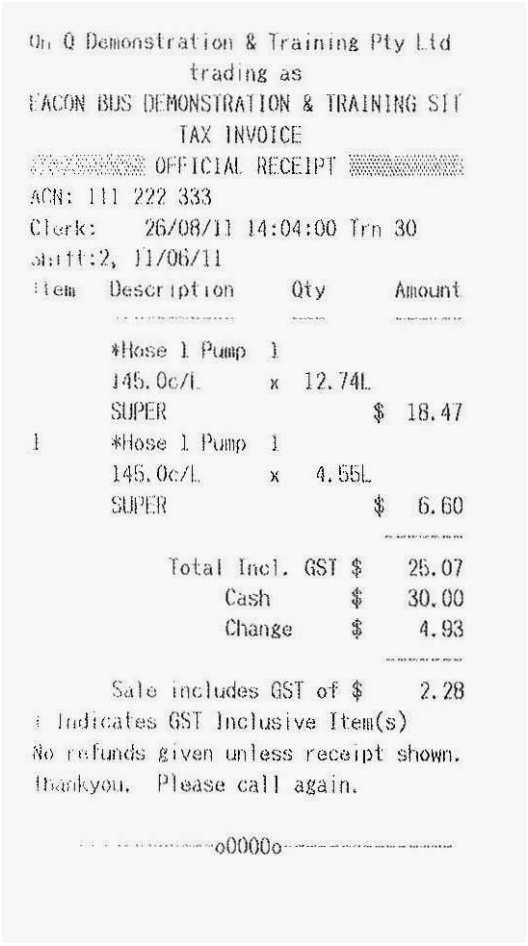


Beacon Business Systems Model On Q Point of Sale Self-serve Control System for Fuel Dispensers for Motor Vehicles

FIGURE S555 – 2

Beacon Business Systems Model On Q Point of Sale Self-serve Control System

FIGURE S555 – 3



On Q Demonstration & Training Pty Ltd
trading as
FACON BUS DEMONSTRATION & TRAINING SIT
TAX INVOICE
OFFICIAL RECEIPT
ACN: 111 222 333
Clerk: 26/08/11 14:04:00 Trn 30
Shift:2, 11/06/11

Item	Description	Qty	Amount
	*Hose 1 Pump	1	
	145.0c/L	x 12.74L	
	SUPER		$ 18.47
1	*Hose 1 Pump	1	
	145.0c/L	x 4.55L	
	SUPER		$ 6.60

Total Incl. GST $ 25.07
Cash $ 30.00
Change $ 4.93

Sale includes GST of $ 2.28
* Indicates GST Inclusive Item(s)
No refunds given unless receipt shown.
Thankyou. Please call again.

o0000o

On Q Demonstration & Training Pty Ltd
trading as
FACON BUS DEMONSTRATION & TRAINING SIT
TAX INVOICE
OFFICIAL RECEIPT
ACN: 111 222 333
Clerk: 26/08/11 14:05:10 Trn 30
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** REPRINT *** REPRINT *** REPRINT **

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Sale includes GST of $ 2.28
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No refunds given unless receipt shown.
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o0000o

Typical Sample Receipts

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