



Australian Government
Department of Industry, Science,
Energy and Resources

National Measurement Institute

36 Bradfield Road, West Lindfield NSW 2070

Supplementary Certificate of Approval NMI S748

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.

DOMs Model PSS5000 Controller for Fuel Dispensers for Motor Vehicles

submitted by Gilbarco Australia
20 Highgate Street
Auburn NSW 2114

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 is subject to review at the decision of the Chief Metrologist in accordance with the conditions specified in the document NMI P 106.

DOCUMENT HISTORY

Rev	Reason/Details	Date
0	Pattern provisionally approved – interim certificate issued	12/07/17
1	Special Conditions of Approval amended (number of sites) – interim certificate issued	31/08/17
2	Pattern approved – certificate issued	26/03/18
3	Variant 1 approved – certificate issued	21/01/21

CONDITIONS OF APPROVAL

General

Instruments purporting to comply with this approval shall be marked with pattern approval number 'NMI S748' and only by persons authorised by the submitter.

It is the submitter'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 Certificate No S1/0B.

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 S748

1. Description of Pattern **provisionally approved on 12/07/17** **approved on 26/03/18**

A DOMs model PSS 5000 controller (Figure 1) that operates as the controller for compatible (#) approved self-service control systems for Fuel Dispensers for Motor Vehicles.

Note: The PSS 5000 controller may be used with any compatible (#) self-service control systems that are approved for use with the POSTEC PCC4 series controller or controller variations, as described in the approval of NMI S398.

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

1.1 Field of Operation

The field of operation of the measuring system is determined by the following characteristics:

- The controller can provide a self-serve arrangement for approved Gilbarco fuel dispensers, or other compatible (#) approved fuel dispensers.
 - The controller may facilitate operation in attended or unattended self-service arrangements when interfaced with a compatible (#) approved control system for Fuel Dispensers for Motor Vehicles. (Figure 2).
 - 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.
- (#) 'Compatible' is defined to mean that no additions/changes to hardware/software are required for satisfactory operation of the complete system.

1.2 System Description

The PSS 5000 controller provides the interface between an approved self-service control system and the fuel dispensers.

(i) Controller

The PSS 5000 controller is a standalone device with communication interfaces to compatible fuel dispensers and an external self-service control system. The controller also comprises an embedded PC operating a Linux based operating system for the PSS forecourt control software. The controller may have peripherals connected to operate any compatible (#) approved control systems

The controller provides the self-service control system with the fuel dispenser control functions.

(ii) Controller Software

The Legal Authority Module (LAM version 468-90-2.02) holds functionally subject to control by legal authorities, e.g. security telegram generator and parameters to control legally relevant functions. The LAM is a separately compiled software module, which is delivered in a special DOMs binary format and with a unique 8 digit software Id. The LAM runs as a separate process.

1.3 Checking Facilities

(i) Communication Monitoring

The PSS 5000 controller receives the fuel sale data (unit price, litres dispensed and total price) directly from the fuel dispenser(s). The controller monitors the status of connected fuel dispensers. Error checking verifies that transmitted data is correct.

(ii) Customer Display (PIPI)

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.

The button on the PIPI display will allow the manual recall of necessary transaction information, including the status (e.g. current sale or stored transaction).

If a POS has a customer display and uses the DOMs POS protocol commands to indicate the display is connected or disconnected, it then becomes the necessary customer display and a PIPI display is not required.

(iii) Local Display

The PSS 5000 controller also includes a 2 line LCD display. Buttons on the bottom of the controller may be used in a similar manner as the PIPI Display to allow manual recall of necessary transaction information.

(iv) Uninterruptible Power Supply (UPS)

An UPS unit that supports USB/HID power device class standard must be included to provide operation under power failure condition. 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.

(v) Additional system checking facilities

Additional system checking facilities may be required when the controller is used in an attended or unattended self-service system. The additional checking facilities are described in the approval documentation for the self-service control system that is interfaced to the controller.

The approval documentation for the self-service control system may also describe checking facilities that operate as an alternative solution to the checking facilities described in this approval.

1.4 Verification Provision

The PSS 5000 controller does not require a separate verification mark.

1.5 Sealing Provision

The PSS 5000 controller does not require sealing.

1.6 Descriptive Markings and Notices

Instruments are marked with the following data, together in one location, in the form shown at right:

Manufacturer's name or mark
Manufacturer's designation (model number)
Pattern approval number	NMI S748
Year of manufacture
Serial number of the instrument

2. Description of Variant 1 **approved on 21/01/21**

The Legal Authority Module software version described in **1.2 (ii) Controller Software** is updated to LAM version 468-90-2.03. The software updates the display of unit symbols for quantity and price when pressing the button on the PIPI display.

TEST PROCEDURE No S748

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

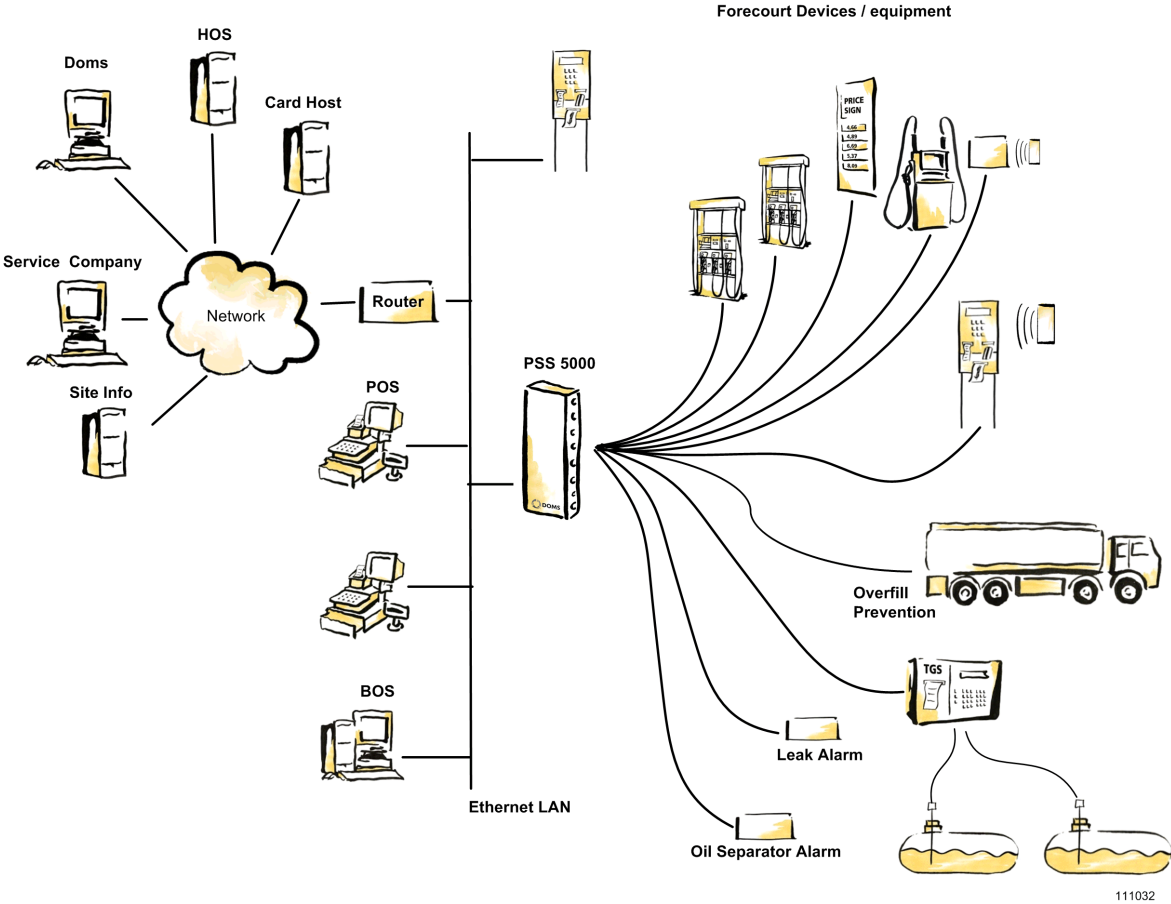
The maximum permissible errors are specified in the *National Trade Measurement Regulations 2009*.

FIGURE S748 – 1



DOMs Model PSS5000 Controller

FIGURE S748 – 2



Typical System Overview with external Self-service control system

~ End of Document ~