



Australian Government

Department of Industry,
Science and Resources

**National
Measurement
Institute**

36 Bradfield Road, West Lindfield NSW 2070

**Supplementary Certificate of Approval
NMI S683**

VARIANT 3 VALID for verification purposes UNTIL 1 April 2026

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.

Invenco Model G6 6525X Control System for Fuel Dispensers for Motor Vehicles

submitted by Invenco Group Ltd
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AUCKLAND NEW ZEALAND

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	29/01/15
1	Pattern & variant 1 approved – certificate issued	21/01/16
2	Pattern amended (equivalent forecourt controller) - Variant 2 approved – certificate issued	17/05/23
3	Variant 3 provisionally approved – certificate issued	09/04/25

CONDITIONS OF APPROVAL

General

Instruments purporting to comply with this approval shall be marked with pattern approval number 'NMI S683' and only by persons authorised by the submitter.

Instruments incorporating a component purporting to comply with this approval shall be marked 'NMI S683' in addition to the approval number of the instrument, and only by persons authorised by the submitter.

Instruments purporting to comply with this approval and currently marked 'NMI PS683' may be re-marked 'NMI S683' but 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.

Special Conditions of Approval: (Provisional Approval – Variant 3)

Provisional approval variant 3 is limited to ten (10) sites only, the locations of which may be obtained from the National Measurement Institute. The submitter shall advise the **National Measurement Institute – Pattern Approval Laboratory** in writing of the proposed location or serial number of each instrument prior to it being initially verified.

Instruments purporting to comply with variant 2 of this approval shall be marked with approval number 'NMI PS683' and only by persons authorised by the submitter. (Note: The 'P' in the approval number may be a temporary marking.)

The variation to the approval will remain provisional pending completion of satisfactory testing and evaluation.

In the event of unsatisfactory performance the approval may be cancelled (or altered).

The submitter shall implement such modifications as required by NMI. In the event that such modifications (if any are required by NMI) are not made to the satisfaction of NMI, this approval may be withdrawn.

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 S683

1. Description of Pattern

**approved on 21/01/16
amended on 17/05/23**

An Invenco model G6 6525X control system (Figure 1) to provide unattended self-service facility for compatible (#) NMI-approved fuel dispensers for motor vehicles. This variant allows authorisation of fuel by customers without a pre-existing arrangement with the supplier.

Fuel dispensers are controlled by the G6 6526X control system through the Postec PCC4 communications controller (as described in approval NMI S398), or other compatible (#) NMI-approved forecourt controller.

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

1.1 System Description

The model G6 6525X system is a card-operated terminal (Figure 2) integrated into compatible (#) NMI approved fuel dispensers (Figure 3).

Each G6 6525X payment terminal includes a contactless card reader, a bar code reader, a receipt printer, a display and a PIN pad.

A touch-sensitive screen and LCD display is used to select available fuel dispensers for authorisation and printing of receipts. Transactions are authorised using a magnetic or smart card reader and the built-in PIN pad.

(#) 'Compatible' is defined to mean that no additions/changes to hardware/software are required for satisfactory operation of the complete system. The NMI-approved fuel dispenser must be originally manufactured with provision to accept the fitting of a card-operated terminal.

1.2 Checking Facilities

(i) Power Supply

The system is powered by the power supply of the approved fuel dispenser. If an error or power failure is detected the system will terminate any deliveries in progress and provide a receipt for the transaction in progress.

The ability to authorise a further transactions will be prevented until the detected error condition is resolved.

(ii) Receipt Printer

The system monitors the condition of the receipt printer and provides a visual warning of an error. If the receipt printer is unavailable or out of paper the model G6 6525X display unit will indicate that a receipt will not be available before a user agrees to authorise a fuel dispenser and continue with a fuel delivery.

1.3 Verification Provision

The Invenco model G6 6525X control system does not require a separate verification mark.

1.4 Sealing Provision

The Invenco model G6 6525X control system does not require sealing.

1.5 Descriptive Markings

Any fuel dispenser fitted with an Invenco model G6 6525X terminal is marked with the following data (shown below at right) in addition to all other required markings as set out in the approval documentation for the dispenser:

Manufacturer's name or mark	Invenco
Pattern approval mark	NMI S683
Environmental class	N

2. Description of Variant 1 **provisionally approved on 29/01/15** **approved on 21/01/16**

The model G6 6525X system of the pattern now as a stand-alone card-operated terminal housed in a weatherproof enclosure (Figure 4) designed for outdoor use.

Each G6 6525X payment terminal includes a contactless card reader, a bar code reader, a receipt printer, a display and a PIN pad.

A touch-sensitive screen and LCD display is used to select available fuel dispensers for authorisation and printing of receipts. Transactions are authorised using a magnetic or smart card reader and the built-in PIN pad.

2.1 Uninterruptible Power Supply (UPS)

An Eaton 5S Line Interactive SOHO UPS 1200VA / 750W LCD (Figure 5) uninterruptible power supply or equivalent (*) to provide operation under power failure.

- (*) '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.

2.2 Checking Facilities – Uninterruptible Power Supply (UPS)

Similar to the checking facilities described for the pattern, the system for variant 1 monitors the condition of the UPS and if an error or power failure is detected the system will terminate any deliveries in progress and provide receipts for all remaining transactions

3. Description of Variant 2 **approved on 17/05/23**

3.1 System Description

An Invenco model G6-300 system is a card-operated terminal (Figure 6) integrated into compatible (#) NMI approved fuel dispensers (Figure 7).

Each G6-300 system includes a card reader, contactless card reader, bar code reader, a receipt printer, a display and a PIN pad.

A Phoenix Contact TRIO-uninterruptible power supply (Figure 8) or equivalent (*) provides operation under power failure.

- (*) '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.

A touch-sensitive screen and LCD display is used to select available fuel dispensers for authorisation and printing of receipts. Transactions are authorised using a magnetic or smart card reader and the built-in PIN pad.

The G6-300 system comprises the same checking facilities as the pattern described in **1.2 Checking Facilities**.

3.2 Standalone operation

Similar to Variant 1 the G6-300 system may be configured to operate as a stand-alone card-operated terminal housed in a weatherproof enclosure designed for outdoor use (Figure 9).

4. Description of Variant 3 provisionally approved on 09/04/25

4.1 System Description

An Invenco model G6-400 system card-operated terminal integrated into compatible (#) NMI approved fuel dispensers (Figure 10).

The model G6-400 is similar to variant 2 includes a card reader, contactless card reader, bar code reader, a receipt printer, a display and a PIN pad

A Phoenix Contact TRIO-uninterruptible power supply (Figure 8) or equivalent (*) provides operation under power failure.

A touch-sensitive screen and LCD display is used to select available fuel dispensers for authorisation and printing of receipts. Transactions are authorised using a magnetic or smart card reader and the built-in PIN pad.

The G6-400 system comprises the same checking facilities as the pattern described in **1.2 Checking Facilities**.

4.2 Standalone operation

Similar to Variant 2 the G6-400 system may be configured to operate as a stand-alone card-operated terminal housed in a weatherproof enclosure designed for outdoor use (Figure 9).

- (*) '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.

TEST PROCEDURE

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

The maximum permissible errors are specified in Schedule 1 of the *National Trade Measurement Regulations 2009*.

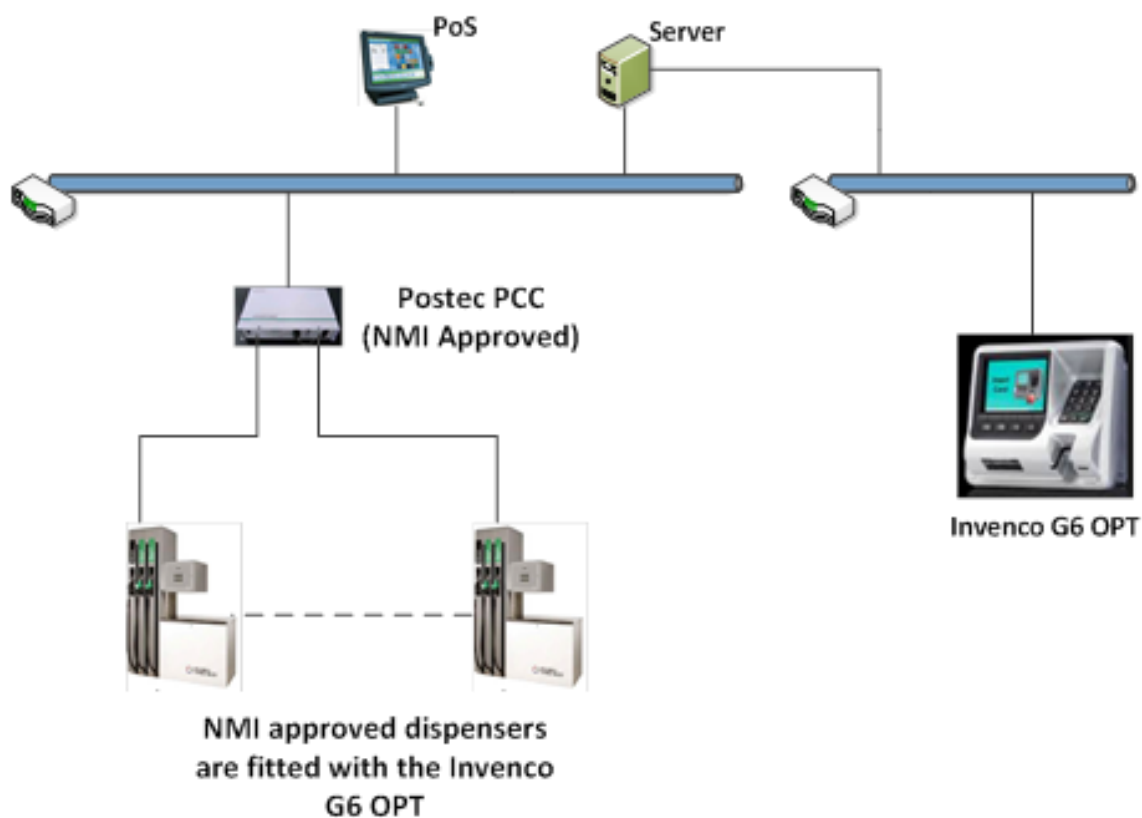
The maximum permissible errors applicable are those applicable to the fuel dispenser to which the instrument approved herein is fitted.

Note: Testing should be carried out on initial installation. Thereafter, it need not be done at every verification/certification of the fuel dispensers but may be done periodically at the discretion of the verifying authority. Operation with an authorised test card can only be done in the presence of a representative of the submitter.

The Invenco model G6 6525X terminal shall be tested as follows:

1. Check that the system identifies, displays and prints the correct data for the corresponding number allocated to the fuel dispenser.
2. Authorise a delivery and check that the delivery details on the fuel dispenser agree with the receipt obtained.
3. Remove paper from the receipt printer to check that when the receipt printer is unavailable, a warning is provided before authorisation of a fuel dispenser can occur.

FIGURE S683 – 1



Typical Invenco Model G6 6525X Control System Layout

FIGURE S683 – 2



Typical Invenco Model G6 6525X Payment Terminal

FIGURE S683 – 3



Typical Invenco Model G6 6525X Terminal Installations
in Various Fuel Dispensers

FIGURE S683 – 4



Typical Invenco Model G6 6525X Stand-alone Control System (Variant 1)

FIGURE S683 – 5



Eaton 5S Line Interactive SOHO UPS 1200VA / 750W LCD UPS

FIGURE S683 – 6



Inenco Model G6-300 (Variant 2)

FIGURE S683 – 7



Inenco Model G6-300 installed in Gilbarco SK700-2 Fuel Dispenser (Variant 2)

FIGURE S683 – 8



Phoenix Contact TRIO-uninterruptible power supply

FIGURE S683 – 9



Typical Invenco Model G6-300 Stand-alone Control System (Variant 2)

FIGURE S683 – 10



Inenco Model G6-400 (Variant 3)

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