



Australian Government
Department of Industry,
Science and Resources

**National
Measurement
Institute**

36 Bradfield Road, West Lindfield NSW 2070

**Supplementary Certificate of Approval
NMI S857**

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.

ORPAK Model OrPAY1000 Control System for Fuel Dispensers for Motor Vehicles

submitted by Gilbarco Australia Pty Ltd
Switchyard, Warehouse 5, Building 2
161 Manchester Rd,
Auburn NSW 2144

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 and Variant 1 provisionally approved – interim certificate issued	13/06/24
1	Pattern and Variant 1 approved – certificate issued	04/12/24

CONDITIONS OF APPROVAL

General

Instruments purporting to comply with this approval shall be marked with pattern approval number 'NMI S857' and only by persons authorised by the submitter.

Instruments incorporating a component purporting to comply with this approval shall be marked 'NMI S857' 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 PS857' may be re-marked 'NMI S857' 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.

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 S857

1. Description of Pattern **provisionally approved on 13/06/24**
approved on 04/12/24

An ORPAK Model OrPAY1000 control system (Figure 1) to provide unattended self-service facility for compatible (#) NMI-approved fuel dispensers for motor vehicles.

Fuel dispensers are controlled by the OrPAY1000 control system through the Orpak PRIME communications controller.

1.1 Key Features

- The system is approved for environmental class N for outdoor use between -10°C and 55°C
 - The system can provide an unattended self-serve arrangement for compatible (#) NMI-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 authorisation of fuel deliveries from registered account customers and by customers without a pre-existing arrangement with the supplier; in the latter case the system must be fitted with a Receipt Printer and Payment Terminal.
 - The system may facilitate mixed-mode operation. An NMI approved control system that is approved for attended self-service operation must be interfaced to the OrPAY1000 control system for operation in this mode.
 - The nominal supply voltage is 12 to 24 V DC or 100 to 240 V AC.
- (#) '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 model OrPAY1000 control system may also be known as model ORIC PRIME Payment Terminal (Figure 2) and comprises:

(i) OrPAY1000 terminal

The OrPAY1000 terminal (Figure 3) includes a LCD Colour display with function keys, radio frequency (RFID contactless card reader, magnetic card reader, barcode reader, and an alphanumeric key pad.

The terminal is used to select available fuel dispensers for authorisation and printing of receipts.

The OrPAY1000 terminal is housed in a weatherproof enclosure suitable for outdoor use.

(ii) Prime Forecourt Controller

An OrPAK model Prime forecourt controller (Figure 4) which may also be known as an Orpak Controller Unit (OrCU), provides interface and data acquisition between the fuel dispensers and the OrPAY1000 terminal.

(iii) Receipt Printer and Payment Terminal (Optional)

An APS model CP-290 receipt printer and Orpak EMV payment terminal may be installed in the housing (Figure 2).

Systems configured without a Receipt Printer and Payment Terminal are approved for authorisation of fuel deliveries by registered customers only and may be known as ORPAK Prime UX with Pedestal (Figure 5).

(iv) Additional System Facilities

In addition, the system may include other facilities known as Fleet Head Office/Fuel Management System (FHO/FMS). The facilities provide additional site and data management software and shall not interact with the system in a way that would cause an incorrect indication of the measured quantity or price.

1.2 Checking Facilities

(i) Power Supply

The system monitors the condition of the Power Supply and if an error or power failure is detected the system will terminate any deliveries in progress and provide receipts for all remaining transactions

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 OrPAY1000 terminal 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 ORPAK Model OrPAY1000 control system does not require a separate verification mark.

1.4 Sealing Provision

The ORPAK Model OrPAY1000 control system does not require sealing.

1.5 Descriptive Markings

Any fuel dispenser fitted with an ORPAK Model OrPAY1000 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:

Submittor's name or mark
Model number
Serial number
Year of manufacture
Pattern approval mark	NMI S857
Environmental class	N

2. Description of Variant 1 **provisionally approved on 13/06/24**
approved on 04/12/24

A model of the OrPAY1000 control system known as Integrated Prime approved with the system components described in **1.2 System Description** installed as part of a compatible (#) NMI-approved fuel dispenser.

The NMI-approved fuel dispenser must be originally manufactured with provision to accept the fitting of a card-operated terminal.

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

2.1 Checking Facilities –Power Supply

The system is powered by the power supply of the NMI 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.

2.2 Verification Provision

The Integrated Prime control system does not require a separate verification mark.

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.

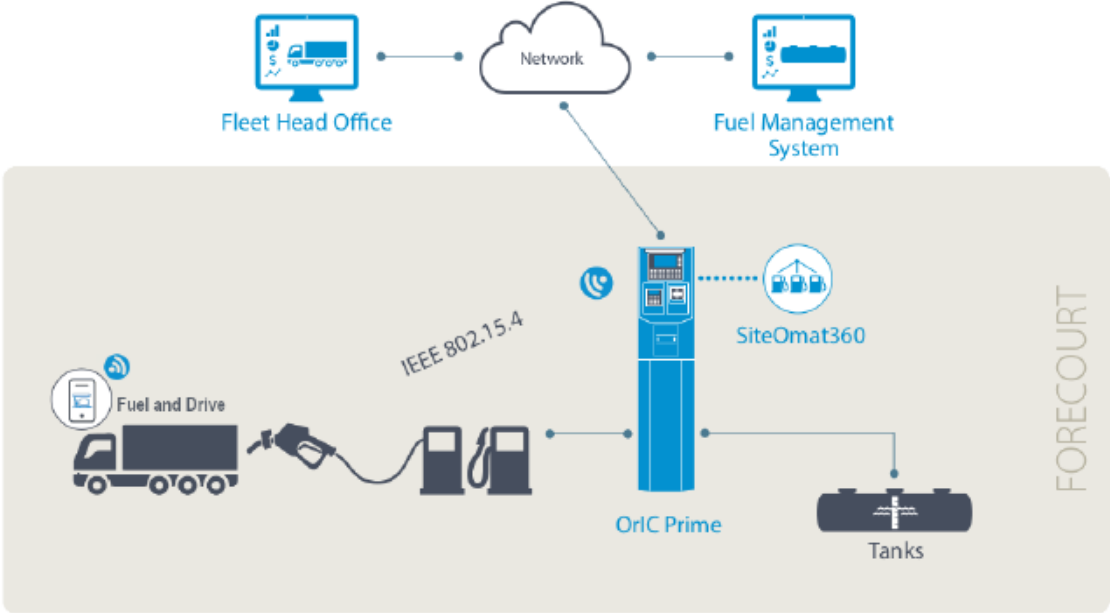
The ORPAK Model OrPAY1000 terminal shall be tested as follows:

1. Check that the system identifies, displays and prints the correct data for the corresponding number allocated to the fuel dispenser.

For systems with a receipt printer fitted:

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 S857 – 1



Typical ORPAK Model OrPAY1000 Control System Layout

FIGURE S857 – 2



Typical ORPAK Model ORIC Prime Payment Terminal

FIGURE S857 – 3



Typical ORPAK Model OrPAY1000 Terminal Installations
in Various Fuel Dispensers

FIGURE S857 – 4



Prime forecourt controller Stand-alone Control System

FIGURE S857 – 5



Typical ORPAK Prime UX with Pedestal

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