Australian Government
Department of Industry, Innovation and Science

National Measurement Institute

Supplementary Certificate of Approval

NMI S459

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.

Datafuel Model DF9000R Control System for Fuel Dispensers for Motor Vehicles

submitted by Datafuel Financial Systems Pty Ltd
Unit 22/1 Talavera Road
North Ryde NSW 2113

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 **1/10/21**, and then every 5 years thereafter.

DOCUMENT HISTORY

Rev	Reason/Details	Date
0	Pattern approved – interim certificate issued	5/09/05
1	Pattern – certificate issued	16/12/05
2	Pattern reviewed & updated – variant 1 approved – certificate issued	26/03/12
3	Pattern & variant 1 **reviewed** – certificate issued	3/11/16

CONDITIONS OF APPROVAL

General

Instruments purporting to comply with this approval shall be marked with pattern approval number 'NMI S459' and only by persons authorised by the submittor.

Instruments incorporating a component purporting to comply with this approval shall be marked 'NMI S459' 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.

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*.

Dr A Rawlinson

TECHNICAL SCHEDULE No S459

1. Description of Pattern approved on 5/09/05

A Datafuel model DF9000R control system (Figure 1) to provide unattended self-service operation for use with Gilbarco model Enterprise fuel dispensers or other compatible (#) approved fuel dispensers.

(#) "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 DF9000R authorisation terminal is approved for environmental class N for outdoor use between -10°C and 55°C.
- The system can provide unattended self-service arrangement for up to 16 approved Gilbarco model Enterprise fuel dispensers (as described in the documentation of approval NSC 5/6A/202) or other compatible (#) approved fuel dispensers.
- May be used in mix-mode operation provided the POS attended operated self-service device is approved for mix-mode operation (refer to approval).
- The nominal supply voltage is 240 V AC.

1.2 System Description

The Datafuel model DF9000R authorisation terminal (Figures 2 and 3) is a standalone card-operated terminal that allows unattended self-service operation of fuel dispensers.

Payment is authorised prior to delivering fuel via a magnetic-stripe card, key reader (proximity or insert type) and/or by keyboard entry.

The DF9000R authorisation terminal is housed in a weatherproof housing (Figures 2 and 3) for outdoor use, and includes a magnetic-stripe card or key reader, a keypad, a liquid-crystal display (LCD) and a battery backup, in a single unit.

An Epson model BA-T505 receipt printer is housed in a separate lockable weatherproof housing and is mounted adjacent to the DF9000R housing (Figures 2 and 3).

The DF9000R authorisation terminal uses Datafuel version 1.0.15 software.

1.3 Checking Facilities

The system monitors the status of the fuel dispensers and displays the condition of the requested dispenser as appropriate, i.e. in use/offline.

(i) Power Supply

The system monitors the condition of the power supply, and if a power failure condition is detected it prevents a new transaction being started (authorised) and enables transactions in progress to be completed.

(ii) Receipt Printer

The system monitors the condition of the receipt printer and if the receipt printer is unavailable, or out of paper, or if power is not available to the printer, then the LCD will display a warning when authorisation is requested that receipts may not be printed and prompts the user to continue with authorisation.

1.4 Markings

The DF9000R authorisation terminal is marked with the following data:

Manufacturer's name or mark	……
Manufacturer's designation (model number)	……
Serial number	……
Approval number	S459
Environmental class	Class N

1.5 Verification Provision

The authorisation terminal has provision for a verification mark to be applied.

2. Description of Variant 1 approved on 26/03/12

A DF9000R control system with updated hardware and a Epson model BA-T500 or other compatible (#) receipt printer. The updated system operates software version V1.2.

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

TEST PROCEDURE No S459

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

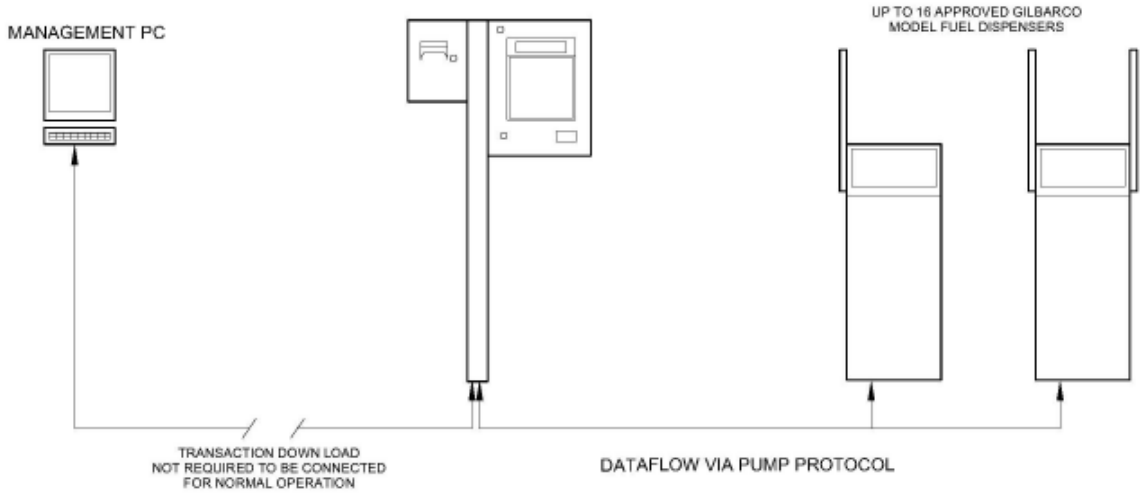
The maximum permissible errors are specified in Schedule 1 of the *National Trade Measurement Regulations 2009*.

Tests

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

1. Check the DF9000R software version number. The version number is displayed on the front display during the power on initialisation sequence.
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. Authorise a delivery and check that the corresponding number allocated to the fuel dispenser and the delivery details on the fuel dispenser, agree with the receipt obtained.
4. Check that when principal power supply is disconnected the fuel dispenser cannot be authorised. The power supply may be disconnected using the power switch in the DF9000R main cabinet.
5. Remove paper from the receipt printer to check that when the receipt printer is unavailable, an appropriate message is displayed on the front LCD before authorisation is requested.
6. Check that if the fuel dispenser can also be authorised by an attended operated self-service device, then ensure it is approved for mix-mode operation.

FIGURE S459 – 1



Typical System Overview

FIGURE S459 – 2

Datafuel Model DF9000R Authorisation Terminal
With Key Insert Reader

FIGURE S459 – 3

With Card Reader

With Proximity Key Reader

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