DFV103 - Level Gauge Monitor

The DFV100 series is the latest advancement in Liquip's range of electronics, featuring as a stand alone register, level gauge CPU or combined unit.

When you require safe, accurate and fast level gauging there is the DFV103 CPU. The DFV103 measures liquid levels in road and static tanks. Suitable for use in many industries and applications including petroleum, chemical, aviation and waste.

Key Features

Common to all potted DFV units

- Weights & Measures Approved: NMO UK, NMI – Australia & New Zealand
- Durable Aluminium housing with hinged door to allow easy access to internal connections.
- Large display to easily view multiple information simultaneously.
- RS232 and CAN communication.
- Intuitive set up and programming.
- Electronic calibration.
- Non volatile memory for storing set parameters.
- Operates on 12 or 24 volt installations.
- Backlit display for ease of reading in low light.
- Piezoelectric buttons for reliability.
- Connection to a ticket printer or a third party fuel management system.
- Can be connected to a large digit display.
- Micro SD card for easy software upgrades.

Diptronic

- Automatic level gauging updated in real time keeps users off the top of the tank.
- Same menu system as DIP200 for ease of operation with operators already familiar with Liquip level gauging technology.
- CAN output for rapid communication with external device.
- Can read up to 6 probes/compartments.
- DFV103 comes with built in power filter negating the need for external power filter.
- Can be connected to slave unit to read an additional 6 probes/compartments.
- Volume shown in 1L increments.
- ±1mm accuracy with no moving parts for minimal maintenance.
- Compatible with E 705 level gauge probes (pots).
- Enables split deliveries to maximise fleet efficiency.
- Unit can be upgraded to combine electronic register - See DFV101 datasheet.
- Range of probe lengths available - up to 3 metre individual probes.

Safety Approvals (All units)

IECEx

- Safety Approved for use in Zone 1 IECEx ExTC 17.000X
Ex e ib mb [ia] IIA T4 Gb IP66
(Ta = -20°C to +60°C)

ATEX/UKEX

- Safety Approved for use in Zone 1 DEMKO 14 ATEX 1407X
UL21UKEX2155X
Ex eb ib mb [ia Ga] IIA T4 Gb IP66
(Ta= -20°C to +60°C)
CE 2813 ⟨Ex⟩ II 2 (1) G
UKCA 0518 ⟨Ex⟩ II 2 (1) G

UL

- UL Safety Approved - USA & Canada for use in Class 1 Zone 1.
Cl. I, Zn1, AEx e ib mb [ia Ga] IIA T4 Gb
Ex e ib m [ia Ga] IIA T4 Gb
Ta= -20°C to +60°C Um = 32V

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Associated Equipment

- DFV101-UP - DFV100 Series upgrade to DFV101
- DFV100 - DFV Register
- DFV101 - DFV Register / Level Gauge CPU

- DIP130 - Level Gauge Probe
- DIP150 - Level Gauge Probe - Low Profile
- Expansion modules - Contact Liquip
- DIP400 - Calibration Rig

Technical Information

Size	Approx, 250 x 200 x 140mm
Displays	1 line x 14 characters 14 mm high and 4 lines x 24 characters 8 mm high
Power Input	9 to 32Vdc (safety approved) or 9 to 45V (operational) @ 250mA polarity protected. External in-line fuse (rated 1.8A, antisurge) is a mandatory condition of safe use.
Operating Temperature	-20°C to +60°C
Ingress Protection	IP66
Weight	4.6kg
Communication	Two RS232C ports to be used to communicate with a PC or other serial device such as a modem or printer. One CAN port.
Printer	Epson CTM-290 or TM-295, Blaster Printer.
Relay Outputs	Up to 4 Relay Outputs. Current sink, 2A max. Solenoid to be connected between this output and the positive of the power supply. Additional in-line fuse (2A, antisurge) is a mandatory condition of safe use.
Program Memory	microSD card

Mounting Instructions

The DFV103 should be mounted using a bracket to suit the below dimensions.