Aljac MEMBER OF THE ELAFLEX GROUP

DIGITAL DENSITY METER

- ON SITE DIGITAL DENSITY AND TEMPERATURE MEASUREMENT
- BACKLIT EASY TO READ DISPLAY, AUTOMATIC SWITCH ON
- LARGE CAPACITIVE KEYS FOR EASY OPERATION WITH OR WITHOUT GLOVES
- LEFT OR RIGHT HANDED USE
- ROBUST FUEL RESISTANT HOUSING
- BLUETOOTH® COMMUNICATION
- ATEX APPROVED
- EASILY EXCHANGEABLE MEASURING CELL

Introduction

The measurement of density and temperature is a critical part of the quality control process for hydrocarbon fuels throughout the manufacturing and supply chain. Although various technologies exist for online density and temperature measurement, the equipment required is expensive and in some cases unnecessary when only a spot check is required.

Density and temperature measurement is particularly important in the aviation fuel supply system. Firstly, the temperature corrected density of the fuel is shown on the fuel batch certificate and it is then measured again at the airport receipt point in order to ensure that the correct type of fuel is being offloaded. Also, because fuel is measured into the aircraft by volume and the airlines need to know the weight, the temperature corrected density is often measured at the point of transfer to aircraft in order to give the customer an indication of the weight of fuel which has been loaded.

The traditional method of measuring density and temperature uses glass hydrometers and thermometers, however, where the customer requires a digital measurement, Aljac recommends the market leading DMA35 Density Meter.

Description

The DMA35 Density Meter which we supply is ATEX approved for use in hazardous areas, which is an absolute requirement for any piece of electronics being used in such close proximity to hydrocarbon fuels.

The main advantage of the DMA35 Density Meter is it's simplicity of operation. All of the controls can be operated when the user is wearing gloves. Holding down the push button operates the internal pump which draws the fuel sample into the measuring cell and automatically switches on the back lit display. This operation also automatically switches on the back lighting in the measuring cell. This is important because in order to obtain accurate results the fuel sample must be filled into the measuring cell without any gas bubbles being present, so the DMA35 measuring cell is fully visible through an inspection window. Alternatively, the fuel sample can be fed into the measuring cell using a syringe.

Understanding the reading is also very simple due to the highly intuitive menu system, and the DMA35 has inbuilt Bluetooth® connectivity which will allow it to communicate directly with any Bluetooth® enabled PC, either to export measuring data for archive purposes or to update the instrument with the latest firmware.

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The DMA35 is also extremely robust, which is an essential attribute because of the hostile environment in which it operates. The display is protected by a toughened glass cover and the housing is fully resistant to hydrocarbon fuels. The measuring cell is easily replaced in the event that it becomes damaged, and it has additional rubber protection fitted which minimises this risk.

The DMA35 has also now been redesigned to allow full screen visibility in conjunction with either right or left handed operation.

How To Order.

Contact the Aljac Sales Department and request the DMA35 Ex Petrol.

Aljac part number 0902000095.

Main Features

Density/specific gravity

Bluetooth® communication with your PC

Rotating screen for ease of reading

Auto switch on back lit display with intuitive menu system

Capacitive keys enable operation when wearing protective gloves

Temperature

Sealed, robust, fuel resistant housing

ATEX approved

Push button to operate the built in pump and take sample

Easily exchangeable back lit measuring cell

Left or right handed use

Specification

Description: Digital Density Meter, DMA35 Ex Petrol.
Measuring Principle: Oscillating U tube (U tube made from borosilicate glass).
Measuring Range: Density 0-3 g/cm³. Temperature 0 to 40 °C.
Sample Temperature Range: 0 to 100 °C
Accuracy: Density 0.001 g/cm³. Temperature 0.2 °C.
Repeatability: Density 0.0005 g/cm³. Temperature 0.1 °C.
Reproducibility: Density 0.0007 g/cm³.
Resolution: Density 0.0001 g/cm³. Temperature 0.1 °C.
Ambient Operating Temperature Range: -10 to +40 °C.
Sample Volume: 2 ml.
Unit Overall Dimensions: 245x103x126mm.
Unit Nett Weight: 660g.

Carry Case Overall Dimensions: 430x160x470mm.
Carry Case and Unit Combined Nett Weight: 3 Kg.
Data Memory: 1024 measurement results, 250 sample IDs, 30 measuring methods.
Power Supply: Three 1.5V LR06 AA alkaline batteries.
Interfaces: Bluetooth®, RFID.
Ingress Protection: IP54 (dust and splash proof).
ATEX Classification: Ex II 2G Ex ib IIB T4.
Relevant Standards: ASTM D7777, IP 559.
Scope of supply: Density meter, filling tube, adapter for syringe filling, syringes, carry case, measuring cell protector, three batteries, Allen key, instruction leaflet.