Innovative Laboratory Solutions for Traditional and New NIR Applications

Lab Gauge

Constituent 0

Product Code 0

Sample Data

Sample 5

IRMA-LAB 858

MoistTech.com
A Sensortech Company
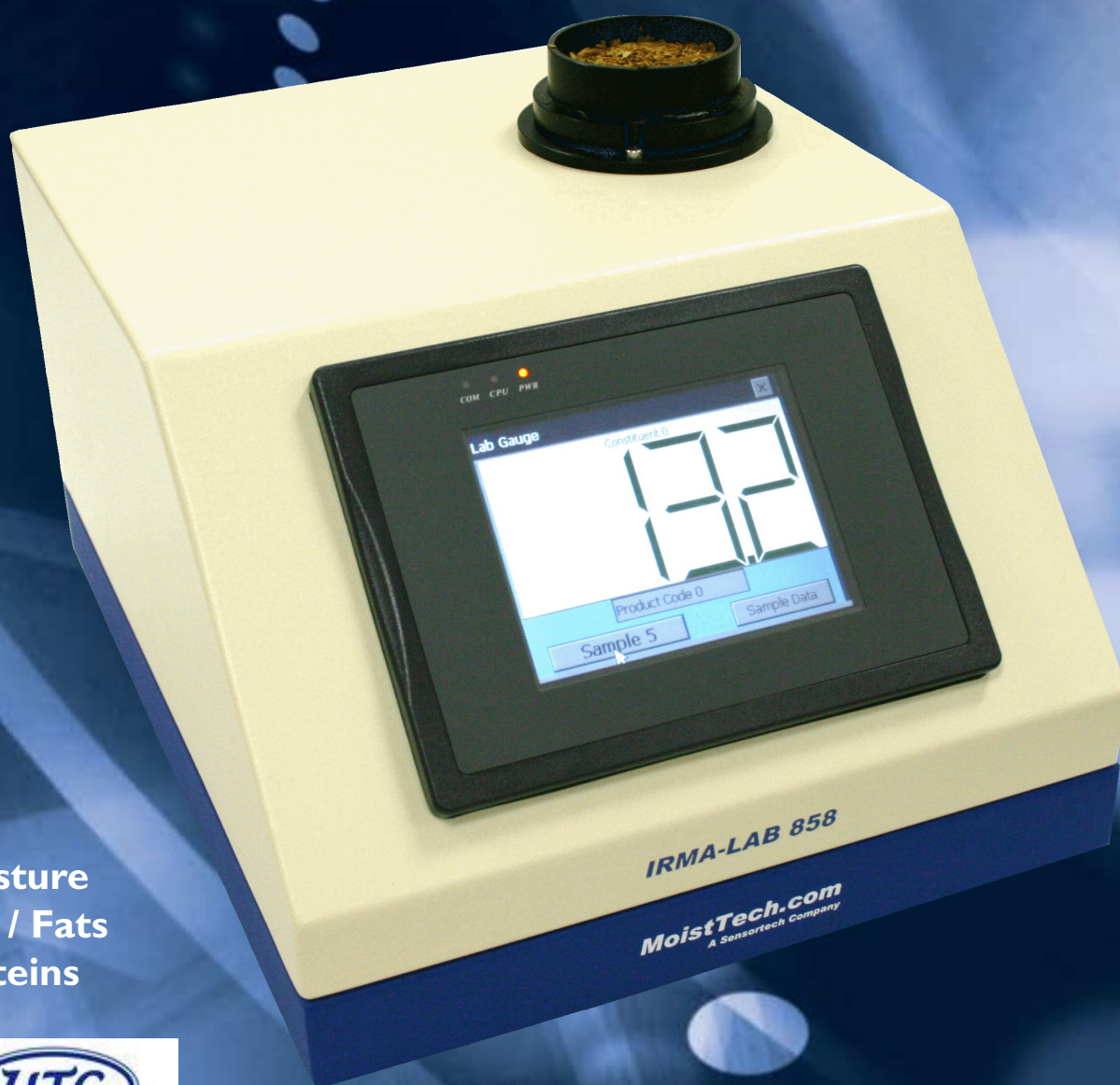
- Moisture
- Oils / Fats
- Proteins

858 Laboratory NIR Analysis System

- Food
- Building Materials
- Paper and Converting
- Pharmaceuticals
- Mining and Minerals
- General Applications

Product Information

MoistTech

Moisttech are widely regarded as market leader and # 1 supplier of on-line Moisture analysers. With over 40 years of knowledge it was only natural that Moisttech would come to industry again with the 858 Laboratory NIR Analyser, a revolutionary non contact approach to NIR analysis for some of the toughest tobacco processing applications in the Industry.

MoistTech is dedicated to providing unique and creative solutions to Industry and offer a wide range of solutions using several innovative technologies for applications considered difficult to measure with traditional non MoistTech technologies. With an on-line pedigree spanning 8 generations of analysers Moisttech is well positioned to meet the exact needs of Industry.

With experience in over 5,000 applications globally and thousands of equipment installs Moisttech represents the diamond standard in robust, reliable and dependable technology for Tobacco process measurement and precise product control.

858 Unique Technology

Molecular bonds such as OH in water and CH in organics absorb Near Infra Red Light that is directed at them at specific frequencies. The 858 uses multiple NIR wavelengths and emits rapid energy from a specially designed energy source onto the product using an optimized optical design and sampling 7000 times per second using a digitally enhanced detection system.

The sensors computer based core then perform numerically exact calculations. An embedded PC is used to process, store and display the required data with 10 times more accuracy and stability than other conventional NIR sensing systems.

Software for 858

MoistTech has designed and developed a software package to interface with the 858 Analyser and other analysers in the MoistTech range. With this configuration program you can view and adjust calibration parameters and system diagnostics. With digital displays and graphics the MoistTech software program is user friendly and can be operated on any PC/ Laptop computer.

The software provides the user to monitor and historically log Process data.
Data can be stored in the report templates within the software or exported in .csv and windows compatible formats via Ethernet or the USB ports available.

Applications for 858

Food

- Cerial
- Tea
- Cheese
- Crackers
- Citrus Pulp
- Chocolate
- Beet Pulp
- Corn Meal
- Coffee
- Milk Powder
- Cookies
- Animal Food
- Spent Grain
- Potato Powder/Granuals
- SugarSoya Bean

Wood Products

- Pelets
- Resin
- Hog Fuel
- Hardboard
- Raw Material
- Bark
- Fibreboard (MDF)
- Oriented Strandboard (OSB)
- Fibreboard
- Wood Shavings
- Particleboard
- Coating Measurement

Pharmaceuticals

- Powders
- Tablets
- Spray
- Medium Density
- Vacuum Dryers
- Dryers Coatings

Paper Processing

- Paper
- Coating
- Hot Melts
- Coatings
- Coatings
- Carbonless
- Converting
- ReMoisturizing
- Pressure Sensitive
- Corrugating Control
- Plastic Film Thickness
- Wax Coastings

Chemicals and Minerals

- Detergents
- Minerals
- Crumb Rubber
- Laminated Glass
- Cellulose
- Soap Powder/flakes
- Iron Ore
- Plastic Chips/Powders
- Fibre Glass
- Crushed Coal
- Bauxite
- Ceramics
  PVB sheet
- PVC
- Accetate
- Foundry
- Cement
- Sand
- Chalk
- Sinter Mix

NB: All moisture applications are possible with other MoistTech products, please consult your local representative or visit our website for more information. www.moisttech.com

858 Model FEATURES

- Non Contact
- Instantantaneous Measurement
- Optional User Interface
- 16 bit data conversion and processing
- Wavelength selection with each application
- Advanced digital filtering for noise free signal
- Very low energy use
- NEW Wireless technology for use with pocket PC
- Surface mount technology
- Non-volatile data storage in Flash™
- No ambient or artifcial light sensitivity
- Digital diagnostics, monitor all critical components
- Standard Ethernet output
- 25 times more processing power

Technical
Specifications

Measured Range and Accuracy
- Moisture Range 0-95%
- Accuracy +/- 0.1% to 0.01%*

Repeatability
- +/- 0.1% of measured value.
- Each dependant on product

Calibration
- *Factory Pre calibrated, Routine Re-Calibration not required

Response time
- 0.01s to 1000s

Operating Temperature
- 0 to 50 degrees Centigrade (32 to 122 degrees Fahrenheit)
- High temperature versions are available

Storage Temperature
- -20 to 70 degrees Centigrade (-4 to 158 degrees Fahrenheit)

Sample Container
- Quartz, Sapphire, Kel F / Aluminium or S/S

Sample Size
- 100 mm (4 inch) in diameter on sample

Sensor Construction
- Cast aluminium housing designed to meet requirements of IP 65 (NEMA 4)

Dimensions
- 31 cm x 18 cm x 16 cm (121 in x 7.1 in x 6.4 in)
- Bench Mount

Weight
- 9 Kilograms (19.8 pounds)

Output
- 2 x USB for Keyboard/Mouse/Flash Ethernet Communication
- IR communication channel

(Through Palm - type or PDA or similar)

Local Area Network
- Ethernet, DeviceNet, Profibus and ProfinNet

Additional Protocols Include
- Modbus, Canbus, Fieldbus and TCP/IP

Reliability
- Warranty - 1 yr
- Lamp and Motor - Lifetime

* Application dependant

Non-Hazardous Technology
- No need for site certification and costly testing with our safe technology

Ultra High Speed Analysis of Multiple Parameters Simultaneously
- Moisttech have the fastest measurement on the market allowing you to monitor and control your process far more effectively, at least 10 x faster than our competitors

Enhanced Product Quality
- Allows immediate production line adjustmens to improve product quality and consistency

Improved Performance
- Allows 100% monitoring of the production process

Reduced "Out of specification product" with 100% Inspection
- Production line start-up time reduced to a minimum resulting in more "In spec product"

Reduced Energy Usage
- The drying process can be tightly controlled resulting in a reduction in energy consumption

Production Line Integration
- Allows multiple sensors to communicate with plant process computers for real time measurement and control

Operator Interface Specifcations

Safety and Environment
- FCC class and B and CE certified
- BSMI certified
- Housing IP65 / NEMA4 complient
- Operating temperature 0 to 50 oC
- Storage temperature -20 to 60 oC
- Humidity 10 to 95 @ 40 oC

Touch Screen
- Construction Tempered Glass
- Resolution Continuous Software
- Driver Windows CE

- ### Full Colour LCD

Operating System
- Windows CE
- Power
- 85 to 250 Vac 50/60 HZ @ 20 W

Overall Dimensions
- 282mm W x 170mm H x 96 mm D
- Size 145mm x diagona
- Resolution 320 x 240 (QVGA)

I/O Ports
- 1 RJ 45 Ethernet port for connection to sensor upto 100m
- 2 serial ports RS232 and RS485
- 2 PS/2 ports for keyboard and mouse
- 1 USB 2.0 port

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