



Model:: H-BD5-MS4810

Trace Liquid Moisture Analyzer

Refer: HBD5-MS4810TP_IntE
Revision: 2006-02-22

Professional for liquids applications

- *Intelligent Analysis Based on Powerful CPU, Reliable, solid state design*
- *Rapid Test, Lab Accurate*
- *Proven technology, Multi-parameters Tested for Compensation*
- *100 frame Data log*
- *LCD 2x16 Display, Backlight Available*
- *RS232/485 Communication, printer supported by RS232C*
- *Full Function Keypad Operation*
- *Memo Driven Software Operation and Setup*



The MS4810TP transmission spectrometer is a portable instrument designed for selective moisture analysis of liquids materials for industry field and laboratory investigations of chemical composition. Technically, the 481x is a multi-band photometer rather than a spectrometer, because it does not measure reflectance across a continuum of wavelengths. Rather, it measures absorption in separate, non-overlapping ranges of wavelength. However, this distinction is not important for most applications. Single tunable spectrometer 4811 is good enough for most certain industry application.

The TP consists of lamps, a photo-detector, and an analyzer with display. These elements are arranged and coordinated with the sample and with each other to provide reproducible, easily interpretable results.

H-BD5-LTP481X is special to 2 kind of samples distinguished by the existence of hydrogen bond and/or none simply. If for critic low detection, careful selection is needed. Most case user's calibration for special applications is the most simply way to get good results.

The instrument supplied with Internal memory capable of storing 8 separate calibrations. Use the calibrations provided by system, or create your own calibrations using the software function provided.

Measure Method

Transmittance Photometric (TP)
Transmittance Spectroscopy (TS)

Features

- Instant Measurement
- Non-Destructive

Usage

Quantitative moisture analysis for liquids, with high selectivity.

Application Details

The high OH absorption coefficient in the NIR Region makes BDTI Vis/NIR analyzers an ideal tool for accurate and flexible moisture analysis in raw materials, in-process and finished product. Using NIR as opposed to traditional, lengthy, and costly traditional moisture analysis, could save significant money and time.

Nutrimet With growing pressure from the Food and Drug Administration on nutriment companies to standardize ingredients and ensure product purity, NIR technology has emerged as a cost-effective means for quality control in the manufacturing process of natural supplements. With the wider spectral range of LTP and LTS than other NIR instruments available, BDTI is taking 100% inspection of raw materials and finished products to a higher level by providing a vehicle for more reliable spectral data collection and seamless user-friendly interfaces to available chemometric software. Professional food Nutrimental Analysis, enabling raw material testing quickly—at the dock, on the manufacturing floor, or where ever it is needed—positioning you to meet GMP and FDA requirements, quickly and easily.

Examples:

- Chemicals, Ink
- Pharmaceuticals
- Food, Beverages and Dairy
- Lubricant Oils, machine oils, fuel oils
- Organics, polymers

General Specifications

Moisture Range: 0.001ppm-1%;
Accuracy: <±1%Rel
Outputs: 2x16 LCD display,
Data Transfer: Via RS-232 port for interface with PC
Calibrations: Stores up to 7 calibration sets
Data Storage: Stores data for up to 100 samples
Optical Capabilities
Measurement Mode: Transmittance
Spectrum Range: ±10nm around 1.94um
Scan Speed: 100ms;
Optical Range: 0 to 6 AU
Resolution: 0.00001 AU
Stability: 0.05 Mili-AU
Measurement Time: Variable (Typically under 20 seconds)

Sample Information

Sample Volume: 100-200mL in cup or directly in tank liquid
Sample Preparation: Not required
Sample Destruction: No

Physical Data

Dimensions:
Analyzer: 98mm X 180mm X 30mm
Sensor: Ø25x350 mm
Weight: less than 2 kg

Supply:

Inside Power Supply: 6-9V DC;

AC Power Requirements.....120 or 240 VAC 50/60 Hz AC adapter (supplied)

DC Power Requirements (included)

Power Consumption250 mA

HBD5MS4810 Models

Model	Code	Measurement Property	Specifications	Applications
LTP4812PC-	SWNIR1B01	Total moisture both of intra- or intermolecular water	Moisture : 0.1-1000ppm/1% Environ temperature:0-35°C	*Not recommended for starch, alcohols, acid and other polyols; not for liquid with dissolved gas as N ₂ O, CH ₄ , N ₂ H ₄ , not for liquid containing Te;
LTP4812PC-	MNIR1B01	Total moisture of absorbed and condensed	Moisture : 0.003-30/300ppm Environ temperature:0-50°C Max to 60°C	*Not recommended for starch, alcohols, acid and other polyols; Not suitable for aromatics, NH ₃ liquids;

Ordering information:

- It would be appreciated if user or dealers can supply us the application information. Such as the chemical components or names of materials. This information is helpful for our evaluation if the instrument is suitable or not, as well to recommend best solution for user's benefits.

BigDipper Technochem Institute

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