

Innovative Solutions for Traditional and New Chemical and Mineral Applications



CCS 3000 On-Line Continuous Moisture Analysis System



www.moisttech.com

- Coal
- Coke
- Sinter Mix
- Minerals
- Ore Extraction and Mining
- Chemicals
- Detergents
- Explosives
- Fibres

Product Information

MoistTech

Moisttech (a Sensortech company) are widely regarded as market leader and # 1 supplier of on-line Moisture analysers for the chemical and minerals industry. With over 40 years of knowledge it was only natural that Moisttech would come to industry again with the CCS3000, a revolutionary new non hazardous approach to moisture analysis for some of the toughest applications in the Industry.

MoistTech is dedicated to providing unique and creative solutions to Industry and offer a wide range of analysers 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 harsh environment process measurement and precise product control.

CCS Unique Technology

Molecular bonds such as water are affected by energy that is directed at them at specific frequencies. The CCS emits rapid energy pulses 7000 times per second from a specially designed energy source onto the product using an optimized optical design using forward optical reflection or **FOR**. This is returned in a beam of collimated energy **CE** to its detection system which is at the heart of the analyser. This proprietary technique is known as the **FOR-CE** technique.

The sensors computer based core then performs numerically exact calculations of quantum dynamics for an arbitrary molecule model interacting with a single-mode field. The time development of molecular and energy matrices and the entropy of a molecule is calculated in order to understand the dynamics its amplitude and phase shift. Thus allowing the precise amount of moisture to be calculated.



The MoistTech/Sensortech Group has over 40 years of knowledge in the development of moisture sensors and is widely recognised as the world leader in IR, RF, FOR and microwave technology



Applications for CCS 3000

Coal	Coke
Sinter Mix	Minerals
Ore Extraction and Mining	Chemicals
Detergents	Explosives
Fibres	

Chemicals and Minerals

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

Management software

MoistTech has designed and developed a software package to interface with the CCS 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. While the software provides basic sensor monitoring and logging, other communications protocols are provided to interface with on-site PC's PLC's and more sophisticated HMI's. MoistTech Analyzers offer every industry standard communications protocol.

CSS 3000 Model FEATURES

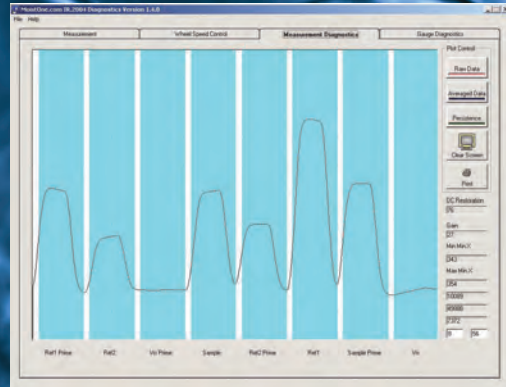
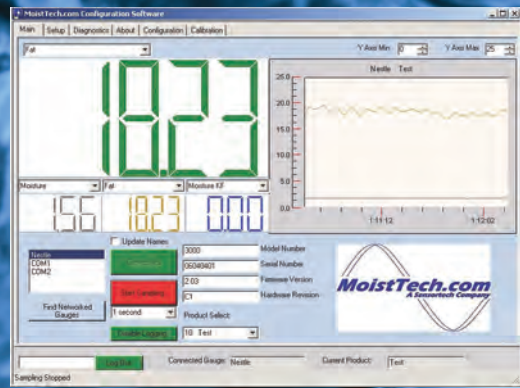
- Non Contact
- Instantaneous Measurement
- NEW Wireless technology for use with pocket PC
- Optional User Interface
- 25 times more processing power
- 16 bit data conversion and processing
- Surface mount technology
- Wavelength selection with each application
- Non-volatile data storage in Flash™
-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



Hand Held PDA



Remote OI screen



Digital Readout



Software display on Laptop

Non-Hazardous Technology

No need for site certification and costly testing with our safe technology

Ultra High Speed Analysis

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 adjustments 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

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)

Sensor / Sample distance

10-35 cm (4 to 14 inches)

Sampling Size

Approximately 25 mm (1 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)
excluding mounting brackets
and air purge tube

Weight

7 Kilograms (15.5 pounds)

Output

3 x 4 - 20 ma isolated analog outputs,
Ethernet Communication, Various
LAN's (Optional), IR communication channel
(Through Palm - type or PDA or similar)

Local Area Network

Ethernet, DeviceNet, Profibus and Profinet

Protocols Include

Modbus, Canbus, Fieldbus and TCP/IP

Reliability

Gauge Warranty 2 yrs
Lamp and Motor Lifetime MTBF 20yrs

* Application dependant

OPERATOR INTERFACE SPECIFICATIONS

Safety and Environment

FCC class and B and CE certified
BSMI certified
Housing IP65 / NEMA4 compliant
Operating temperature 0 to 50°C
Storage temperature -20 to 60°C
Humidity 10 to 95 @ 40°C

Touch Screen

Construction Tempered Glass
Resolution Continuous Software
Driver Windows CE

Screen

STN colour LCD
Size 145mm x diagona
Resolution 320 x 240 (QVGA)

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

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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For all local office details and information,
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