



NOVA SERIES

MCT466

QuikCheck

Rugged NIR Tester for Use at Line

PROCESS SENSORS
CORPORATION 



NOVA SERIES MCT466 QuikCheck

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Nova Series

Proven, Reliable Performance

The **MCT466 QuikCheck** is a reliable and sturdy at-line, NIR Tester for use in harsh manufacturing environments. The MCT466 QuikCheck is routinely used to measure moisture in samples taken from the production line. However, other measurements can be made, including oils, protein, film thickness, coating weights, nicotine and sugars.



Low fat potato chips



Clear film thickness



Moisture in tobacco

The Near Infrared (NIR) Operating Principle

Shining light at specific NIR wavelengths causes common molecular bonds to vibrate and absorb energy. By comparing the absorbed energy at “measured” wavelengths to non-absorbing “reference” wavelengths, the MCT466 QuikCheck can accurately and repeatably measure moisture, oils, fats and other parameters based on the samples’ chemical composition.

The O-H bond of water (H-O-H) vibrates at 1.94m and 1.43m. The H-C bond of organic hydrocarbons and oil vibrates at 2.34m and 1.72m. The appropriate overtone wavelengths are selected based on concentration levels of the component to be measured.

MCT466 QuikCheck Features

- Bright Touch Screen LCD
- Programmable Turntable automatically rotates
- Rugged Polycarbonate Construction
- Calibration Software included
- Diagnostics available through LCD
- USB for data download to memory stick
- Serial output for printer or bar code reader
- 200 on-board product codes

Simple, Easy, Reproducible Results

- Fill sample dish to constant volume
- Place dish onto MCT466 QuikCheck
- Dish automatically rotates
- Wait 10 seconds
- Read percentage H2O

Sample Preparation

Many products require no sample preparation. Sampling error is reduced because of the rotating dish that permits the **MCT466 QuikCheck** optics to “see” multiple surfaces and average hundreds of measurement readings. However, some products can be relatively thick, with moisture trapped inside. In these cases, it is wise to break up the sample so that the internal moisture is exposed to the surface.



APPLICATIONS INCLUDE:

Food Products

- Coffee
- Breakfast Cereals
- Soy & Corn Meal
- Cookies & Crackers
- Milk Powders

Pet Foods & Animal Feed

Wood Products

- Particle Board
- Oriented Strand Board
- Medium Density Fiberboard
- Sawdust

Tobacco Products

- Cut
- Chewing
- Stems (Ground)
- Whole Leaf (Ground)

Converting

- Coat Weight
- Adhesive Thickness
- PVB Film Thickness

Snack Foods

- Potato Chips
- Corn Chips
- Tortillas
- Popcorn
- Pretzels (Ground)
- Pork Rinds (Ground)

Chemicals/Minerals

- PVC Powders
- Ceramic Powder
- Fertilizer
- Detergents
- Ores

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The Innovative New NOVA Series

The **MCT466 QuikCheck** can be configured to measure up to 3 components in a sample. The component of interest most of the time is moisture. Once a sample is placed onto the MCT466 QuikCheck, it is automatically rotated, and the results are displayed within 10 seconds. Simple to operate, the MCT466 QuikCheck produces accurate and repeatable results.

Specifications: MCT466 QuikCheck

Measured NIR Constituents: _____ 1, 2 or 3 simultaneously
Moisture Range: _____ Min. 0.1%, Max. 95%
Coatings Range: _____ Min. 0.1gr./m, Max. 200 gr./m
Fats/Oils: _____ Min. 0.1%, Max. 50%

Accuracy: (subject to application and product type)

Moisture: _____ +/- 0.1%
Coatings: _____ +/- 0.1 gr./m
Fats/Oils: _____ +/- 0.2%

Repeatability: _____ +/- 0.2%
Calibration Codes: _____ 200
Power: _____ 90-260VAC, 50/60 Hz, 40 watts
Weight: _____ 20 lbs. (9.07kg)
Construction: _____ Hygienic Polycarbonate
Display: _____ 5.7 inch Color Touchscreen LCD
Languages: _____ User Selectable

Maintenance:

Warranty: _____ 24 months Parts/Labor
Routine Cleaning: _____ During scheduled plant maintenance
Calibration Confirmation: _____ Calibration Check Standard

Dimensions: MCT466 QuikCheck



Front View



HEADQUARTERS

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