MCT460

ONLINE NIR SENSOR

KPM

M.C. TEC

Continuous Monitoring of Moisture and Other Parameters in Industrial Manufacturing

OVERVIEW

The MCT460 offers rapid continuous analysis for manufacturing operators to monitor incoming raw materials or process control on the production line. The online, non-contact sensors accurately measure moisture, oil, coat weight, temperature and other parameters. With this analysis, operators can maintain consistent product quality, increase yield, and minimize waste.

The MCT460 features NIR technology widely used and accepted in various industries for moisture and other online measurements.
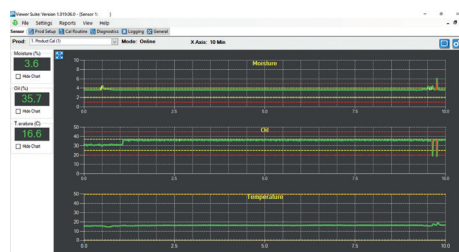
APPLICATIONS

- Chemicals and Chemical Powders
- Hot Melts
- Pressure Sensitive Adhesives
- Extruded Plastics
- Gypsum Powder
- Bricks

- PVB Films
- Textiles
- Crumb Rubber
- Polymer Pellets
- Glass Cullet
- Sands and Aggregates
- PVC Powders
- Ceramics

- Fertilizers
- Pulp Sheets
- Paper
- Detergents and Soaps
- Mineral or Metallic Ore
- Gun Powder
- Biofuels
- Tobacco

- Wood
- Corrugated Materials
- Food Packaging and Containers
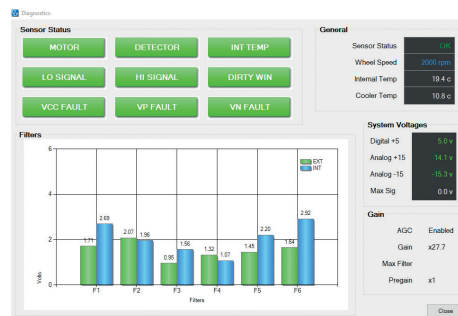- Panel and Particle Board
- Roof Shingles

MCT460 FEATURES

- Allows capturing up to 33 readings per second

- Rugged enclosure withstands harsh conditions

- Simple to operate, integrate, and standardize across multiple lines

- A proprietary temperature-controlled detector ensures measurement stability

- Fully modular, with all components easily replaceable in the field

SensorVu™

PROPRIETARY SOFTWARE PLATFORM

The MCT460 uses SensorVu™ Windows® - based PC software, allowing operators to insert set-up parameters, perform or adjust calibrations, select product codes, examine internal diagnostic values and remotely view moisture and temperature trends.
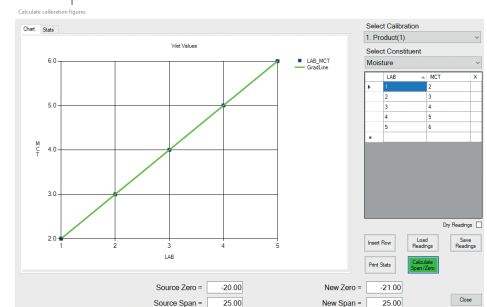
Trend screen with logging capability displays process reading changes in real time.

Easy diagnostics page for troubleshooting.

Simple, graphical calibration routine for quick setup of new products.

MEASUREMENT OPTIONS

The MCT460 supports a wide range of measurement calibrations that are vital to many industrial processes. Within the SensorVu Software, users can adjust tolerances of parameters for their unique products.

Common measurements include:

- Moisture of various levels
- Oil/fat
- Coat weight (wet end and dry end)
- Product temperature (with IR Temp Sensor accessory)
- Resins
- Edge curl in paper webs

ACCESSORIES

Product Loss Sensor
Part# 240-807A

Enables measurements when the product flow is discontinuous or there are frequent lulls in the production stream.

Optional Communication Port

Connect your preferred communication option (shown in the Specifications table)

IR Temp Sensor
Part# 240-021A

Enables simultaneous product temperature measurement.

Snorkel Sampler
Part# 250-000A-4AC

Designed to measure free falling powders/granules in chutes.

Cal Check Standard
Part# 230-000A-S

Used to verify sensor stability over time and transfer calibrations between sensors.
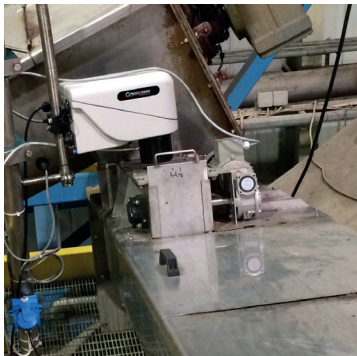

Air Cooling
Part# 240-010A

Vortex cooler attached to the sensor for high-temp applications.

INSTALLATION EXAMPLES
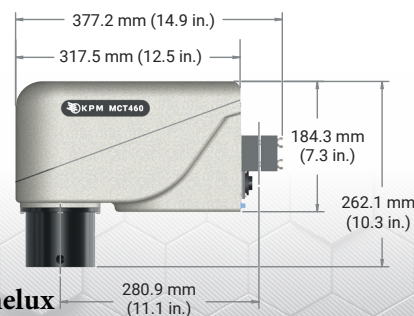

Auger & screw

Belt or conveyor

Bins & chutes

SPECIFICATIONS

MCT460 (Part# 460-100; sensor assembly with display)	
Sensor enclosure	Powder coated cast aluminum
Reading speed	Up to 33 readings/second
Product calibrations	100
Communication options (connection at the operator interface (shown in Accessories))	USB, Ethernet TCP/IP, Ethernet IP, EtherCAT, ProfiNet, ProfiBus, Modbus TCP, DeviceNet, OPC-DDE Server
Measured NIR constituents	1, 2, or 3 simultaneously
Moisture accuracy	+/- 0.1%
Resins, fats/oils accuracy	+/- 0.2%
Wet basis moisture range	Min. 0.1% Max. 90%
Dry basis moisture range	Min. 0.1% Max. 400%
Fats/oils range	Min. 0.1% Max 50%
Transmitter/product distance	8-18 in. (200-450 mm)
Power inputs	110 to 240V standard. 24VDC optional.
Analog outputs	4-20mA, 0-10V (isolated), RS-232 & RS485
Operator interface	5.7 in. touch screen
Languages	13 selectable languages
Cable	10 ft (3 meters) standard. Up to 100 ft (30 meters) optional.
Compliance	CE Certified (FCC CFR 47: Part 15: B: 2015, Industry Canada Interference-Causing Equipment Standard ICES-003: 2021)
Weight	8.6 kg (19 lbs)
Warranty	Two years parts/labor; Three years lamp replacement

Front View

377.2 mm (14.9 in.)
317.5 mm (12.5 in.)
184.3 mm (7.3 in.)
262.1 mm (10.3 in.)
280.9 mm (11.1 in.)

Bottom View

177.8 mm (7.0 in.)