

# Tobacco Products On-line NIR Smart Sensor



## MCT460-T

Continuous moisture, nicotine, sugar  
and product temperature measurement  
for quality control in tobacco processing



## CONTINUOUS REAL-TIME MEASUREMENT AND CONTROL IN TOBACCO PROCESSING

Moisture control is critical to maintain consistent tobacco quality, increase yield, maximize processing efficiency, minimize waste and meet buyer expectations. The Tobacco On-Line NIR Smart Sensor from Process Sensors Corporation (PSC) enables precise analysis of moisture and additional constituents in all stages of tobacco processing for quick return on investment.

With proven performance in harsh tobacco processing conditions, the MCT460-T is built to last, simple to install and virtually maintenance free for years of reliable, consistent results regardless of tobacco color, blend or type.

### IMPROVE CONSISTENCY

Control moisture to within 0.1% to meet product specs every time

### MINIMIZE WASTE AND OVERHEAD

Enable closed loop control of dryers and conditioning cylinders for reduced waste

### CONTROL BLENDS

Ensure batch to batch consistency of tobacco blends



### RAPID, CONTINUOUS MEASUREMENTS

- Non-contact, continuous on-line measurement for rapid adjustments
- High accuracy and repeatability
- Unaffected by relative humidity, changes in product temperature, ambient light and high ambient temperatures

### MCT460-T ADVANTAGE

- Simple to operate, integrate and standardize across multiple lines and locations
- Rugged cast aluminum enclosure withstands the hot & dusty conditions found in tobacco processing facilities
- Proprietary temperature controlled detector ensures measurement stability in arduous environments
- Fully modular with all components easily replaceable in the field
- Easy to troubleshoot with advanced on board diagnostics



# MCT460-T Applications and Specifications



**MCT460-T provides reliable measurements in all stages of tobacco processing:**

- Tobacco Leaf Processing
  - Whole Leaf
  - Whole and Cut Stems
  - Lamina Strips
- Primary Tobacco Processing
  - Air, Flue and Sun Cured
  - Reconstituted
  - DIET
  - Finished Cigarette Tobacco
- Cigar Filler
- Chewing
- Pipe Tobacco
- Snuff

## SIMULTANEOUS CONSTITUENT MEASUREMENT

- Moisture
- Product Temperature
- Nicotine
- Sugar



**VIEWER SUITE SOFTWARE**

Proprietary ViewerSuite Windows® - based PC Software program allows operators to insert set-up parameters, perform or adjust calibrations, select product codes, examine internal diagnostic values and remotely view moisture and temperature trends.

### SPECIFICATIONS: MCT460-T NIR SENSOR

|                               |                                                                |
|-------------------------------|----------------------------------------------------------------|
| Measured Constituents:        | 1 or 2 plus product temperature                                |
| Measurement Accuracy:         | +/- 0.1 to 0.5%                                                |
| Measurement Range:            | 0 - 60%                                                        |
| <b>Moisture Range:</b>        |                                                                |
| Wet Basis                     | Min. 0.1% Max. 60%                                             |
| Dry Basis                     | Min. 0.1% Max. 400%                                            |
| Transmitter/Product Distance: | 8-18 inches (200-450mm)                                        |
| Calibration Codes:            | 100                                                            |
| Outputs:                      | 4-20mA, 0-10V (isolated), RS-232 & RS485                       |
| Weight/Enclosure:             | 19 lbs. (8.6kg)/IP67, Cast Aluminum                            |
| Ambient Temperature:          | 0-50°C (32-120°F) with water or air cooling up to 80°C (160°F) |
| Optional Operator Interface:  | 5.7 inch Color Touchscreen LCD, 13 User Selectable Languages   |

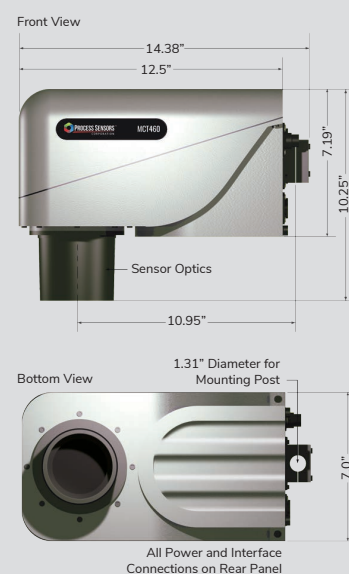
### SPECIFICATIONS: OPERATOR INTERFACE

|            |                             |
|------------|-----------------------------|
| Power:     | From MCT460 Sensor or Local |
| Cable:     | 10 ft (3 meters) standard   |
| Enclosure: | Cast Aluminum               |

### DATABUS & SOFTWARE INTERFACES

|                         |                                                        |
|-------------------------|--------------------------------------------------------|
| Optional Bus Interfaces | ProfiNet, ProfiBus, Ethernet IP, Modbus TCP, DeviceNet |
|-------------------------|--------------------------------------------------------|

### MCT460-T DIMENSIONS



### OPERATOR INTERFACE



## Request a Demo Today!

**Call us at (508) 473-9901 or visit [www.ProcessSensors.com/tobacco](http://www.ProcessSensors.com/tobacco)**

Our experienced team is eager to answer your application questions and demonstrate how our technology can solve the challenges you face every day.

# Featured Accessories for Tobacco Processing



## IR Temp Sensor

Enables simultaneous product temperature measurement. No additional hardware or wiring is required.



## Fieldbus Module

Allows the sensor to communicate directly with control systems via Ethernet, Devicenet, Profibus, ect.



## Product Loss Sensor

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



## Cal Check Standard

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

*For a complete list of accessories, visit our website.*



## THE PSC ADVANTAGE

Process Sensors Corporation, a KPM Analytics company, is a leading supplier of NIR and IR sensors and systems to Fortune 500 manufacturing companies and small, privately held organizations in industries worldwide.

With sales and application support offices around the world, Process Sensors Corporation's dedicated experts are committed to the long-term success of our customers from initial installation and training to on-site support and product enhancements. We pride ourselves on technical competence and customer satisfaction.

To speak with an NIR or IR expert about your application, visit our website or call us today.



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