Process Sensors Corporation

Description of Process Sensors Near Infrared Transmitter Accessories

Sensor Enclosures: Sensors are available in several formats.

Nema 4: This is a painted cast aluminum sensor. It is dust-proof and water resistant to direct jets of water.

Teflon Coated: These are Nema 12 sensors with a food grade 'plastic' finish together with a Kel-F window (food grade plastic).

Wall Mountable Operator Interface: This is a display and sensor adjustment interface that mounts on a wall local to the sensor. It allows a user to interface with the sensor for setup, calibration and diagnostics. The operator interface is dust proof and suitable for installation in an industrial environment. It is designed to be permanently connected to a single sensor.

Hand Held Operator Interface: This is a hand held version of the wall operator interface. It offers users the same functionality as the wall interface, but it is smaller and designed to be used for connection to an unlimited number of sensors. It is supplied with a 6-foot (2-meter) cable as standard.

PC Software: This is a PC program that allows users to interface with the sensor. It provides an interface to the sensors memory and programming for setup of analog outputs, calibration, diagnostics and the basic setup of the sensor. It is an alternative interface to the wall and hand interfaces, designed for users that prefer to use a computer to setup the sensor.

Interconnecting Cables: The Wall Mountable Operator Interface may be mounted up to 300 feet (100 meters) from the sensor. Standard lengths held in stock are 10-ft, 20-ft and 50-ft. (3, 6 and 15 meters)

Remote Panel Meter: For users that require a remote (> 100 meters) display of the sensor's moisture reading, this is a DPM meter that connects directly to the analog output of the sensor.

Water Cooling Panel: When the sensor is required to be installed in environments at temperature higher than 120 F (50 C) it needs to be fitted with a water cooling panel. This panel bolts to the base of the sensor and allows cold tap water to cool the sensor.

Vortec Air Cooling Panel: This is an alternative cooling system to the water-cooling panel. It uses a Vortec cooling element that provides a cold airstream. This airstream is connected to a panel that bolts to the bottom of the sensor. It is more often used in the food industry where water is not suitable as a cooling medium. This cooling system operates in the same temperature environments as the water-cooling panel.

Calibration Check Standard: This is a double sided standard that has absorbing filters that mimic a low and high moisture sample. It is used as a periodic check of the sensor's calibration stability.

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Sensor Window Air Purge: This is a special sintered bronze diffuser that is fitted to the inside of the sensor's window shroud. When a clean dry airline is connected to the shroud the diffuser creates an air curtain that will prevent dust from sticking to the widow. It is only needed is very dusty environments.

Base & Stand: This is a bench mountable stand that allows the sensor to be used on a table top for demonstrations, fault finding and pre-installation calibrations.

Product Loss Sensors: These are photocells that are fitted to the sensor when it is being used on products that have gaps in the flowing line of product. The output from these photocells is used to 'gate' the sensor so as to eliminate the gaps from influencing the sensor reading and analog outputs.

Snorkel Sampler and Controller: This accessory is designed for use with the sensor so that readings may be made on products that a falling vertically down ducts. It is a stainless tube with a small cup on the end. The tube is inserted into the duct. The controller software held in the sensor allows the cup to fill with product, tells the sensor to measure that sample, then ejects the sample with a jet of air, and then repeats the cycle. In this way the sensor measures sample every 10 to 20 seconds. When the sample cup is being filled or emptied the sensor's reading and analog outputs are held at the last reading taken. This accessory requires that the Wall Operator Interface be permanently connected to the sensor, as the control signals for the sampler come from the Operator Interface

Sample Turntable with Test Initiate Button.
This option allows any online sensor to operate as a Bench Top unit. It requires that the wall Operator Interface be used. The Test Initiate Button 'initiates' a test of a sample that has been placed in the sample dish

Non Contact Product Temperature Sensor
This option requires the temperature Input Interface PCB to be fitted to the MCT200 sensor. An infrared temperature sensor may be installed, either inside the MCT200 enclosure or external to the sensor. The analog output from this temperature sensor can be presented on the Operator Interface and outputted via the MCT200 sensor's analog and serial ports. When so required this product temperature reading may be used to compensate the moisture reading of the MCT200.

Ethernet Interface Board
This is an optional interface board that may be fitted to the MT100+, MCT200 and the *MCT8000* sensors. It allows the sensor to communicate to a host PC using Ethernet.

DeviceNet & Profibus Interface Boards
These are similar interface boards to the Ethernet board, but the communications format is now either Devicenet or Profibus. Both boards are supplied with their respective electronic data sheets allowing the user to program the host computer to receive the sensor data correctly.

Temperature Input Interface Board

This option board allows the user to input a mA or V signal from a temperature-measuring device. The temperature information may be presented on the Operator Interface and when needed may be use to influence the moisture reading for changes in product temperature.

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