

COMMAND ALKON MOISTURE EXTENSION MODULE

Part Number: 42000

DESCRIPTION:

The Moisture Extension Module (MEM) provides the ability to connect, calibrate, and measure up to 12 moisture probes simultaneously on a variety of materials measuring up to 1" coarse aggregates. The MEM includes a software application (Dashboard) that manages the calibration process. Using the Dashboard, each moisture probe can be tuned and calibrated separately. The Dashboard supports any number of moisture sample and bake out pairs for each probe/bin/material combination which are then used to calculate each probe's calibration.

The output of the MEM can be any or all of the following:

1. A 'scoreboard' residing on the Windows® desktop that displays a calibrated value of moisture for each connected probe.
2. A calibrated, digital output count for each connected probe that can be read via Modbus protocol by any system.
3. (Optional) A calibrated and scaled analog output signal (0 – 10 VDC) for each connected probe.

The MEM consists of a software module installed on a Windows® based PC, and a hardware interface box that is connected to the PC via a network cable. The physical moisture probe sensors are connected into the hardware interface box. Inside the interface box are a combination of analog input and analog output modules depending on the number of probes and the output requirements.

The connection to the MEM is via a standard network (Ethernet) connection. This provides a benefit in that the MEM interface box can be mounted in close proximity to the physical probes, eliminating a significant amount of the expensive six conductor cable.

OPERATION:

Automatic

Once configured and calibrated, the MEM operates as an independent device. The MEM will continuously convert the signal provided from the moisture probe into a digital value, or optionally an analog value. Operator intervention is not required at any time. The operator can review the reading of each probe via the Dashboard or on the batching system plant overview display. If the analog output option is used, the MEM does not have to be connected to the network after calibration is completed.

Manual

Using the MEM Dashboard, the user may configure, calibrate, and diagnose the Moisture System. This includes the ability to plug in 'test' values to confirm the analog calibration is correct.

SYSTEM REQUIREMENTS:

- Moisture Extension Module with support for up to 12 Probes in multiples of two (2). Includes the MEM Dashboard application and Interface box
- Windows PC with network support (for configuration and calibration.)

- The Moisture Probe(s) and Cable(s) are ordered and installed separately.

IMPLEMENTATION:

- Install the moisture probe(s) and cable(s).
- Install the Moisture Extension Interface box. Connect power, the network connection, and the probes.
- The MEM is provided with default calibrations for a range of materials, allowing the product to be placed in use right away. Using the MEM dashboard, obtain moisture samples and perform bake outs to refine the calibrated “moisture percentage” output for each specific aggregate material. The process of obtaining samples and bake outs may take several weeks, depending on the weather, etc.

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