

Hydronix

Hydro-Mix

Flush Mount Microwave Moisture Sensor
for Mixers and Conveyors



CONCRETE • AGGREGATES • ASPHALT

Hydro-Mix

Flush mount, digital, microwave moisture sensor

The Hydro-Mix is a rugged, microwave moisture measurement sensor designed to be installed flush with the floor of a mixer, chute or conveyor in process control environments.

Reading at 25 times per second and combined with on-board functionality such as signal processing, smoothing and averaging, the Hydro-Mix accurately measures the moisture content of material as it passes over the ceramic faceplate. Remote configuration, calibration, diagnostics and firmware upgrades are simple using Hydronix Hydro-Com software. The linear output allows direct integration with any control system using industry standard interfaces.



Ceramic Replacement Kit

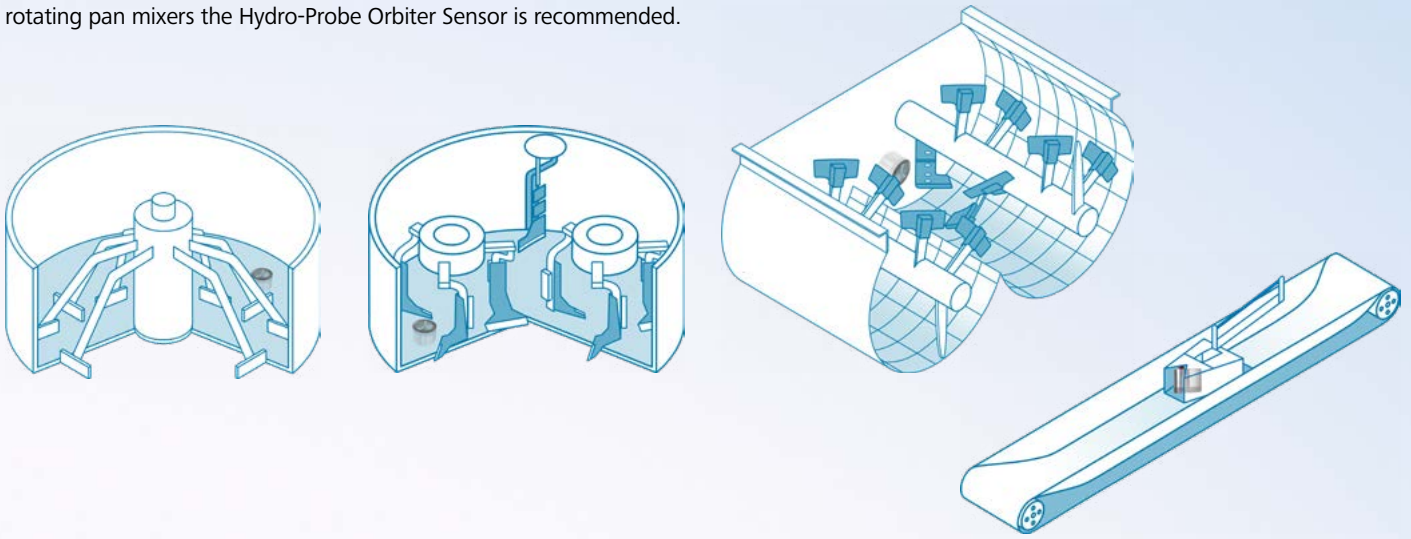


Features

- Digital technology provides precise linear moisture measurement with 25 reading per second
- Advanced Digital Signal Processing provides a clear signal with rapid response
- Choice of measurement modes for optimising sensor performance in a variety of applications and material types
- Fully temperature compensated measurement
- Two analogue outputs, digital RS485 communications and configurable digital inputs/output, alarms
- Remote communication with Hydro-Com software allows configuration of all sensor parameters
- Consistent performance with no need for recalibration except for use with different materials
- Calibration data points stored within the sensor for improved quality control
- Stand alone or simple integration into a new or existing system
- Easily replaced ceramic faceplate.

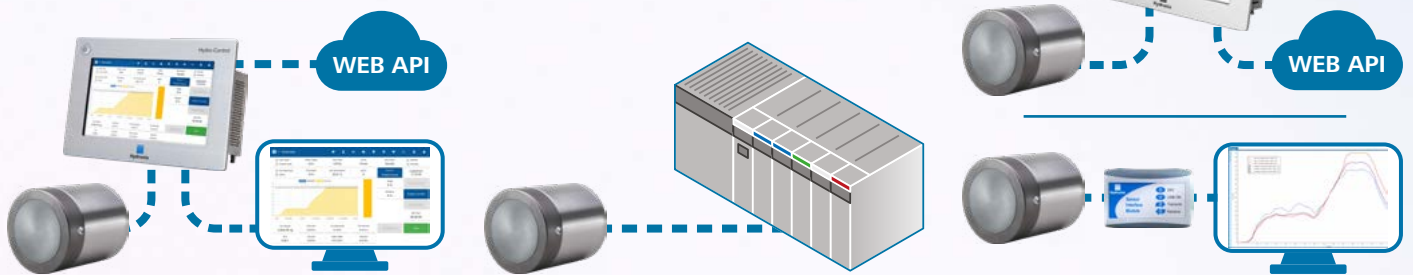
Typical Installation

All types of static pan, horizontal shaft and ribbon mixer. Also suitable for installation in screw conveyors, chutes and other flush mount applications. For rotating pan mixers the Hydro-Probe Orbiter Sensor is recommended.



Connectivity

Extensive range of connectivity options.



Hydro-Control Connection

Provides a complete system to control moisture in a mixing application.

Direct Connection to a Control System

The analogue or serial interface integrates easily with a moisture control system.

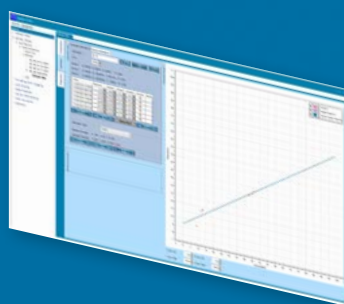
Direct Connection to Hydro-View / PC

The RS485 serial interface provides a direct connection to an operator interface or a PC.



DISPLAY AND CONTROL

Hydronix has a range of display and control options.



CONFIGURE AND CALIBRATE

Hydro-Com Software, configure and calibrate sensors.



NETWORKING

Hydro-Hub, sensor network connection.

Technical Information

Construction

Body: Stainless Steel
Faceplate: Ceramic
Protection Ring: Hardened Steel

Fixing

The sensor requires a 127mm (5") hole to be cut. A Fixing Plate is welded around the hole and the sensor is secured to the Fixing Plate using the Adjustable Clamp Ring.

The clamp ring allows easy installation, extraction and adjustment of the sensor.

Moisture Range

The sensor will measure up to saturation of material.

Penetration of Field

Approximately 75-100mm dependant upon material.

Refresh Rate

25 times per second

Operating Temperature

0-60° C. The sensor will not measure ice.

Connectivity: Native to sensor

Two Analogue Outputs 4-20mA / 0-20mA (0-10V).
Two configurable Digital I/O.
Modbus.
Opto-Isolated RS485 2-wire port.

Connectivity: Through Hydro-Hub/Hydro-View

Ethernet/IP
PROFINET
PROFIBUS
Web API

Connectivity: Other Interfaces

RS232
Ethernet (TCP/IP)
USB

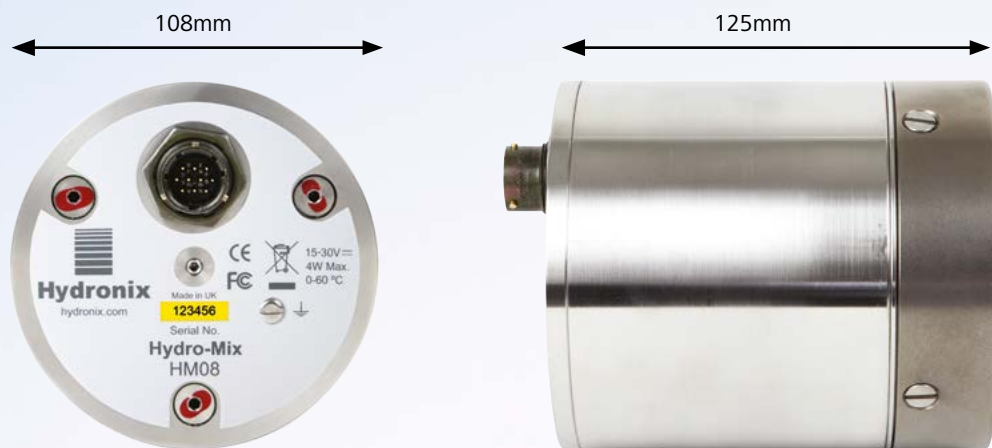
Programming details to access sensor values and parameters are available on request.

Extension Cable

Six twisted pairs, 22AWG, 0.35mm² conductors.
Screen braid with 65% minimum coverage plus aluminium/polyester foil. Maximum cable run of 100m

Power Supply

+15V to +30V DC, 4W.



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Part Number	Description
HM08	Hydro-Mix Digital Microwave Moisture Sensor
0021	Fixing Plate for welding to mixer (required)
HS02	Hydro-Skid - Mounting option for belt conveyors
0035	Blanking Plate to cover hole when the sensor is removed.
0975A	4m Sensor Cable
0975AT	Sensor cable with network termination (4, 10, 25 and 50m)
M8EW	4 Year extended warranty option