

Hydro-Mix VI

product information sheet

*The ultimate intelligent
microwave sensor for
measurement
of moisture
in mixers*



Hydronix

Hydro-Mix VI

*The unique Hydronix digital microwave technique
Defining the standards of moisture measurement*

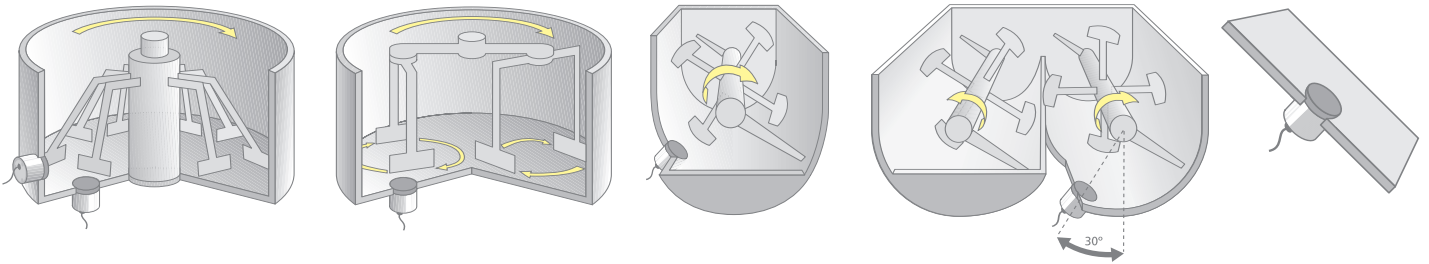
The Hydro-Mix VI achieves a greater accuracy of measurement over a wider range of moisture contents than is possible with any other sensor. Internal intelligence enables the sensor to be remotely configured, calibrated or interrogated for diagnostic purposes as well as facilitating software upgrades. Versatile, and suitable for interfacing directly with all control systems the Hydro-Mix VI is built for rugged use with a hardened steel protection wear ring and ceramic face plate which may easily be replaced in the event of accidental damage.



Key features

- Highest possible accuracy of measurement using the unique Hydronix digital microwave technique.
- Fast response to changing conditions with internal filtering to provide meaningful readings. Temperature reading of sensor also available.
- Remote communication with **Hydro-Com** software allows configuration of all sensor parameters including selection of sensor outputs, graphic traces of outputs, calibration of sensor readings and software upgrades.
- Ease of interfacing with other systems with selectable linear outputs (analogue or digital) to suit all requirements.
- Consistent performance with no need for recalibration other than for use with other materials.
- Tough and reliable with proven track record.
- Easily replaced ceramic and wear ring.
- Unsurpassed after-sales and technical support around the world.
- Optional 3 year warranty can be purchased. Please contact Hydronix for further details.

SUITABLE APPLICATIONS



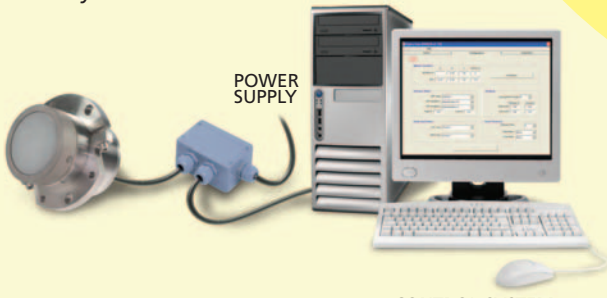
All types of static pan, horizontal shaft and ribbon mixers.

For use in other flush mount applications, please refer to Hydronix (support@hydronix.com)

For rotating pan mixers, the Hydro-Probe Orbiter is recommended (see Product Information Sheet for further information).

CONNECTIVITY

Direct connection to control system
Using the analogue or serial output provides a fully integrated moisture control system.



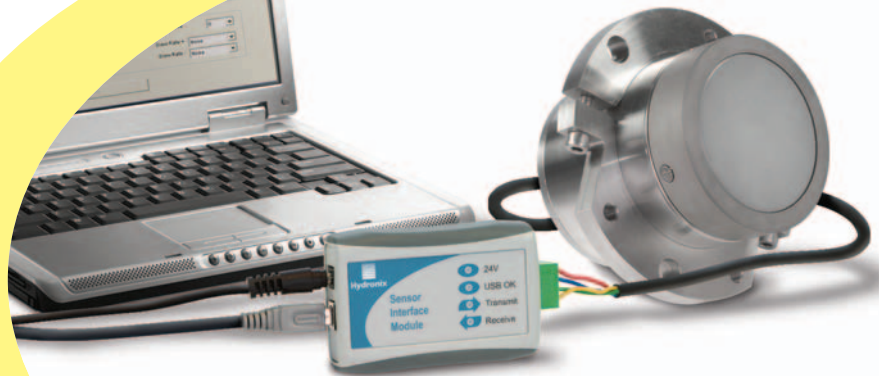
POWER SUPPLY

CONTROL SYSTEM

Hydro-View connection
Displays and communicates moisture to control system.



Hydro-Control V connection
Completely controls the mixing cycle to provide the correct addition of water irrespective of variation in the aggregates.



USB connection

Easy communication with sensor using USB sensor interface module. Useful for sensor diagnostics, configuration and software upgrades.

TECHNICAL INFORMATION

CONSTRUCTION

Body: Stainless steel
Faceplate: Ceramic
Wear ring: Hardened steel

FIXING

Recommended hole size 127mm (5"). The sensor is secured to a fixing plate welded to underside of mixer floor (or outside wall) and secured using the adjustable clamp ring. This allows easy installation, extraction and adjustment of the sensor as the mixer floor wears. See document HD0226 for full information.

RANGE OF MOISTURE

The sensor will measure up to saturation of material.

PENETRATION OF FIELD

Approximately 75 – 100 mm dependent upon material.

POWER SUPPLY

+15V to +30V dc, 4w max.

OPERATING TEMPERATURE

0 – 60° C. The sensor will not detect moisture in frozen materials.

REFRESH RATE

All the outputs are updated approximately 25 times per second.

ANALOGUE OUTPUT

Configurable 4-20mA or 0-20mA current loop source available for moisture and temperature. Also may be converted to 0-10V dc.

MODES OF OPERATION

Two modes of operation are available:

Standard mode: All outputs are linear and suitable for interfacing with external systems.

Compatible mode: Analogue output characteristics mimic earlier analogue sensors and is suitable when interfacing with Hydro-Control IV (HC04) or Hydro-View (HV02/HV03)

DIGITAL (SERIAL) COMMUNICATION

Opto-isolated RS485 2-wire port. Refer to your distributor for read/write access to sensor parameters and values. RS232 converter and USB interface available.

DISCRETE INPUTS

Two inputs available for batch averaging or moisture temperature multiplexing.

EXTENSION CABLE

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

WHEN ORDERING

The mode of operation should be specified, either 'Standard' or 'Compatible' when ordering. (See above)

Code	Description
HM06T	Hydro-Mix VI – standard mode with linear output for normal digital or analogue connection. Specify HM06C for compatible mode
0021	Fixing plate for welding to mixer
0035	Blanking plate – to cover hole in the mixer when the sensor is removed
0033	Adjustable clamp ring (provided) – (see 'Fixing' above)
0090A	4m cable – Six twisted pairs, 22AWG, 0.35mm ² conductors. Also available in 10m (0090A-10m) and 25m (0090A-25m) lengths.
0116	Power supply 30 Watt for up to 4 sensors
0049A	RS232-485 converter – DIN rail mounting
0049B	RS232-485 converter – 9 pin D-type to terminal block
SIM01-A	USB sensor interface module including cables and power supply.

Hydro-Com software for sensor configuration and diagnostics. Available as free download from www.hydronix.com



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