

Hydronix

Hydro-Control

Touch Screen Water Control System
for Concrete Production



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Hydro-Control

Intuitive Touch Screen Water Control System

The Hydro-Control is a stand alone unit designed for moisture control in concrete production. It can be connected to a control system via ethernet, WEB API or an RS232 serial link to allow the transfer of mix cycle information and remote recipe selection.

Designed for simplicity of use and integration, the colour display clearly indicates the mix cycle status with a continuous graphical display of moisture content. The touch screen interface completes the intuitive look and feel of the unit.

A choice of water addition modes ensure optimum performance is achieved for all recipes.



Features

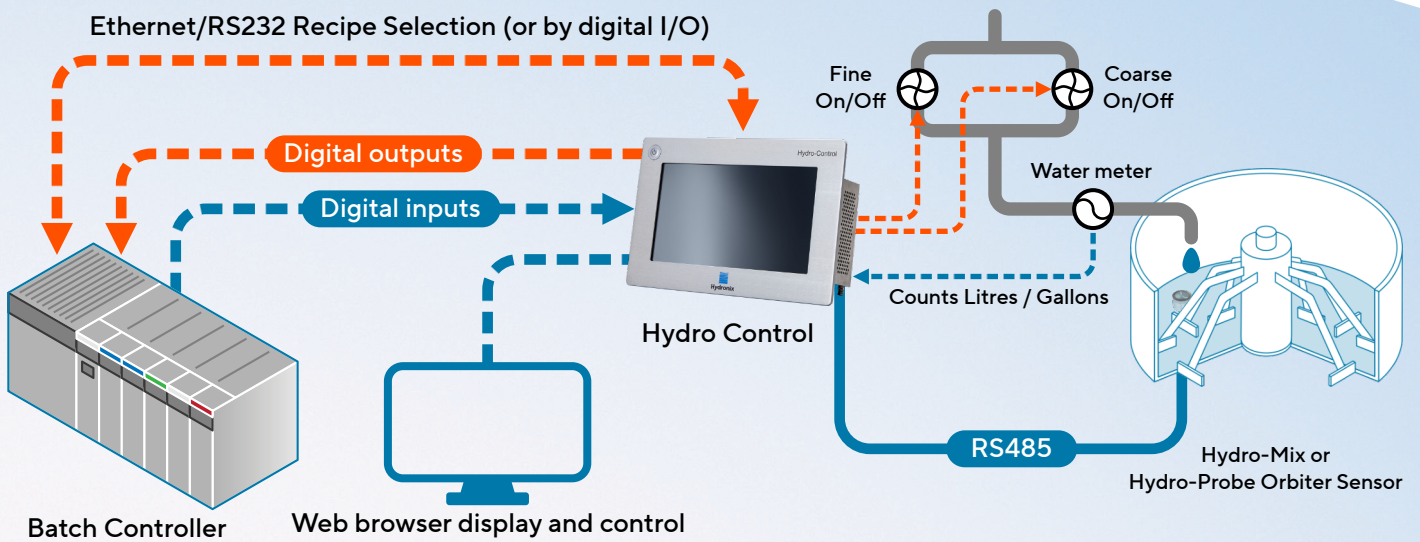
- Compact and powerful - suitable for all mixer applications
- Intuitive 10.1" LCD colour display touch screen
- Remote connection for display, control, diagnostics and support
- Direct replacement for Hydro-Control VI units*
- Easy to read display provides continuous graphical display of moisture and mix cycle status. Mix log, sensor diagnostics and many other selectable screens
- Versatile with selectable control modes for controlling water addition into the mixer. Enables the most suitable mode to be selected for any given mix recipe
- Enhanced mix information enabling detailed mix analysis
- Direct communication - links to the Hydronix moisture sensors for mixers
- System integration - ethernet, WEB API and RS232 communication allows setting and reading of recipe number and data from the main control system, or simple installation using the inputs/outputs included in the unit
- Supports addition of weighed water**



*requires 7060 Cable Adapter and 7050 Mounting Adapter Plate

**requires expansion board

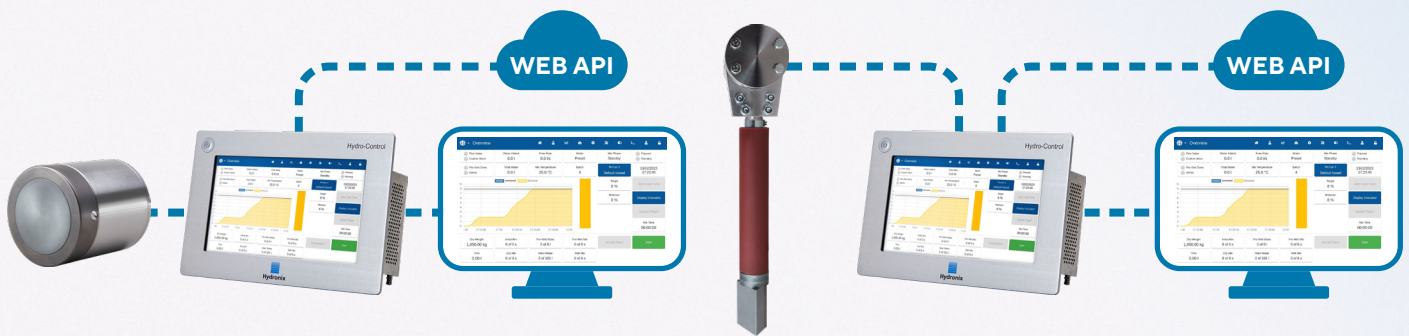
Typical Installation



Connectivity

Hydro-Control to Hydronix Sensor Connection

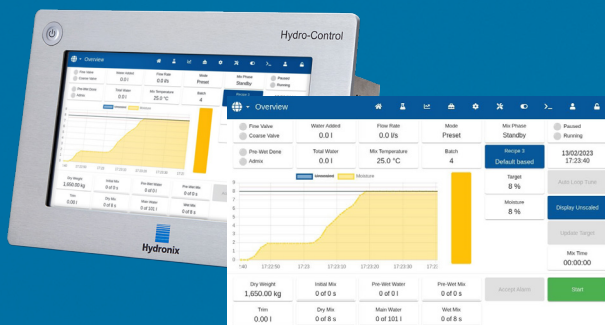
Provides a complete system to control moisture in a mixing application



Modes of Operation

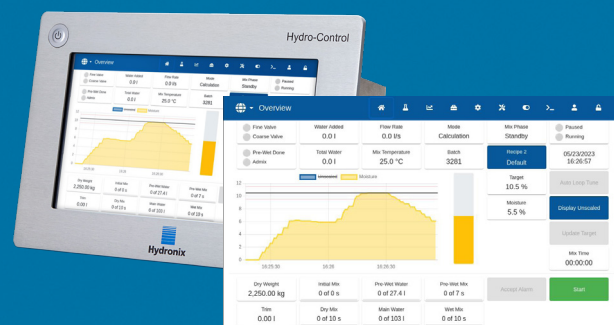
AUTO Mode: This is the simplest operating mode and is designed to progressively add water until a target moisture has been achieved. Intuitive and easy to configure parameters ensure that water is added as required. Speed and accuracy of AUTO Mode are not affected by variable batch weights.

CALC Mode: This mode calculates the water required to be added to a mixer based on a moisture value taken from the dry materials in the mixer. CALC Mode enables water to be added in a "single shot" at the maximum rate. CALC Mode offers complete flexibility in moisture and homogeneity control even when the flow rate is variable.



AUTO Mode Function

Progressive water addition



CALC Mode Function

"Single shot" water addition

Technical Information

Construction

Body: Stainless Steel
Touch Screen: 10.1" LCD colour display

Computer Operating System

Linux

Fixing

The unit can be installed in an operator panel or in the Hydronix Steel Enclosure.

Power Supply

24V DC 1.25A (40W) for Hydro-Control and sensor if attached. Power for field devices must be provided from a separate supply.

Communications

Ethernet/RS232 connection to the batch control system for recipe updates and control commands. RS485 communication with the mixer sensor. Ethernet port.

Sensor Connection

A Hydro-Mix or Hydro-Probe Orbiter sensor from Hydronix can be connected to the Hydro-Control by two twisted pairs (4 cores total) screened (shielded) cable with 22 AWG, 0.35mm² conductors suitable for up to 100m.

Input /Output Modules

7 digital output modules and 5 digital input modules are provided. Standard configurations for 110VAC or 24V DC units are available.

Optional Expansion Board

Required for weighed water or non-RS232 remote recipe selection.

8 inputs for discrete, binary or BCD remote recipe selection plus a further analogue input to enable weighed water functionality.

Additional analogue input and outputs for future upgrade path.

USB Connections

Connections for USB memory sticks to enable recipe backup and restore and mix log data backup.

Recipes

Over 99,000

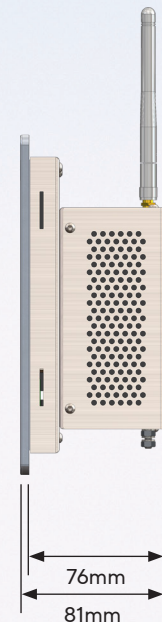
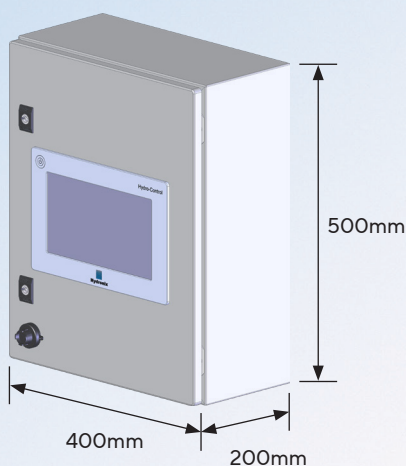
Backward Compatibility

The Hydro-Control is backward compatible with Hydro-Control V (HC05) and VI (HC06) units.

Operating Temperature

0-50 degrees C.

Steel Enclosure (Optional)



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Part Number	Description
HC07-110V	Hydro-Control - 110V input/output configuration, requires 24VDC power
HC07-24V	Hydro-Control - 24V input/output configuration, requires 24VDC power
HC07E-X	Hydro-Control with Expansion Board (digital recipe selection, weight water and external temperature input)
0117	Power Supply 120 Watt (powers Hydro-Control and connected Hydronix sensor)
7010	Hydro-Control Expansion Board (required for weighed water and digital recipe selection)
7100	Wall Mounting Enclosure for Hydro-Control Unit IP66 (NEMA4)
7200	Control Cabinet (pre-wired for easy connection to field wiring)
0175	Panel Mount USB Socket
7025	Replacement System CF Card
7050	Hydro-Control VI to 7 Mounting Adapter Plate
7060	Hydro-Control VI to 7 Adapter cable
C7EW	4 Year extended warranty option