



Touch Screen Water Control System  
for Concrete Production

# Hydro-Control VI



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# Hydro-Control VI

## Intuitive Touch Screen Water Control System

The Hydro-Control VI is a stand alone unit designed for moisture control in concrete production. It can be connected to a control system via an RS232 serial link to allow the transfer of mix cycle information and remote recipe selection. A USB memory stick can be used to update the unit.

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

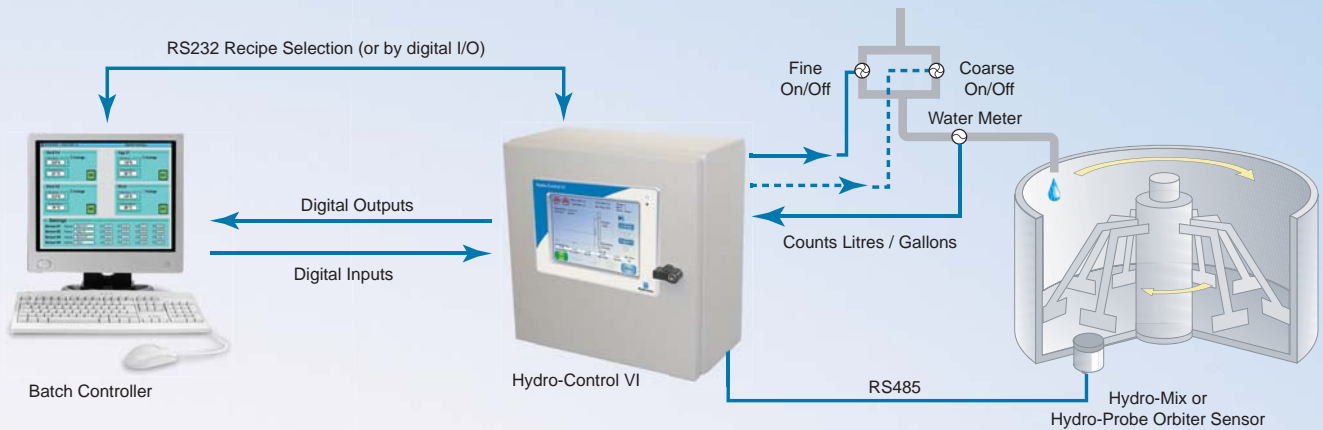
- Compact and powerful - suitable for all mixer applications
- Intuitive 8.4" LCD colour display touch screen
- Remote connection for diagnostics and support
- Direct replacement for Hydro-Control V units
- Easy to read display provides continuous graphical display of moisture and mix cycle status. Mix 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 - 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

## Easy Data Management

Upgrade, Backup and Restore via USB



## Typical Installation



### Digital Inputs:

Start/Resume, Cement In, Pause/Reset, Water Meter Pulse Input, Water Tank Full, Optional 8 inputs for recipe selection

### Digital Outputs:

Coarse Water (switches on the coarse valve), Fine Water (switches on the fine valve), Admix, Prewet Done, Mix Complete, Alarm, Water Tank Fill

## 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.

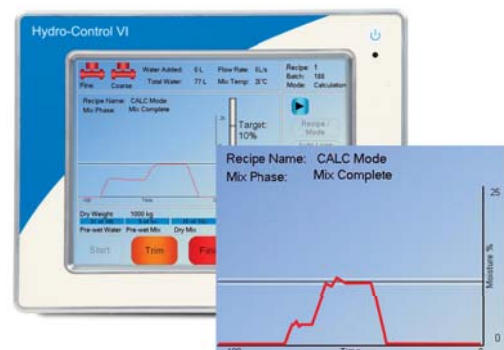
### AUTO Mode Function

Progressive water addition



### CALC Mode Function

"Single shot" water addition



# Technical Information

## Construction

Body: Stainless Steel

Touch Screen: 8.4" LCD colour display

## Computer Operating System

Windows XP Embedded

## Fixing

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

## Power Supply

24V DC 1.25A (30W) to power the Hydro-Control and sensor if attached. Power for field devices must be provided from a separate supply.

## Communications

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, 0.35mm<sup>2</sup> 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, or these can be customised to your specification.

## 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

Up to 32,000

## Backward Compatibility

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

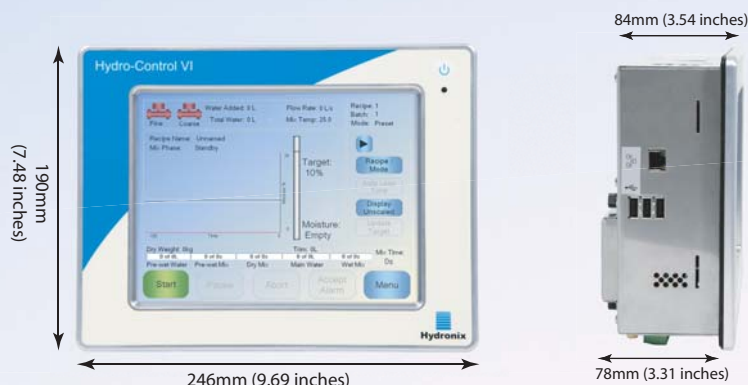
## Safety Certification

Meets the requirements of IEC/EN 61010-1 : 2001 and ANSI/UL 61010-1 Second Edition.

## Operating Temperature

0-40 degrees C.

Steel Enclosure (Optional)



# Hydronix

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## Part Number

## Description

HC06-110V	Hydro-Control VI - 110V input/output configuration, requires 24VDC power
HC06-24V	Hydro-Control VI - 24V input/output configuration, requires 24VDC power
HC06C	Hydro-Control VI - Custom input/output configuration, requires 24VDC power
0116	Power Supply 30 Watt (powers Hydro-Control and connected Hydronix sensor)
0180	Hydro-Control VI Expansion Board (required for weighed water and digital recipe selection)
6017	Wall Mounting Enclosure for Hydro-Control Unit IP66 (NEMA4)
0175	Panel Mount USB Socket
0176	Replacement System CF Card
0177	Replacement Data Storage Card
0179	Additional Touchscreen Protective Layer
C6EW	4 Year extended warranty option

[www.hydronix.com](http://www.hydronix.com)