# Pro-HC Irrigation Controller Written Specifications

**Part 1 – General**

* 1. The controller shall be a full-featured residential/light commercial product for the purpose of irrigation operation, management, and monitoring of control valves and sensors. The controller shall be fully integrated with Wi-Fi connectivity to the internet and Hydrawise® software. The controller shall be of a fixed-station design that is available in 6-, 12-, and 24-station models.

**Part 2 – Controller Enclosures**

* 1. Controller shall be available in following the options:
1. Plastic wall-mount indoor enclosure
2. The controller shall be Hunter Industries model PHC-600-i, PHC-1200-i, or PHC-2400-i.
3. Pre-assembled controller shall have a height of 8¼" (21 cm), width of 9½" (24 cm), and a depth of 3½" (8.8 cm).
4. The controller shall be furnished in a wall-mount plastic enclosure suitable for remote control with a smartphone.
5. The controller shall be a fixed-station controller with 6, 12, or 24 stations.
6. All station outputs shall have MOV and copper induction coil surge suppression.
7. Plastic wall-mount outdoor enclosure
8. The controller shall be Hunter Industries model PHC-600, PHC-1200, or PHC-2400.
9. Pre-assembled controller shall have a height of 9" (22.8 cm), width of 10" (25 cm), and depth of 4" (10 cm).
10. The controller shall be furnished in an outdoor, weather-resistant, wall-mount plastic enclosure, suitable for remote control with a smartphone, with a key lock.
11. The controller shall be a fixed-station controller with 6, 12, or 24 stations.
12. All station outputs shall have MOV and copper induction coil surge suppression.
13. A 751CH key shall be mounted in the enclosure door for security.
	1. Two (2) keys shall be provided per each controller.
	2. Warranty
14. The controller shall be installed in accordance with the manufacturer’s published instructions. The controller shall carry a conditional 2-year exchange warranty. The automatic controller(s) shall be the Pro-HC series controller as manufactured for Hunter Industries Incorporated, San Marcos, California.

**Part 3 – Controller Hardware**

* 1. Control display
1. Display shall be 2.9" (7.4 cm), full-color graphical touchscreen interface allowing for programming and manual operation.
2. All programming shall be accomplished by use of the touchscreen or with a smartphone, tablet, or PC.
	1. Control panel
3. Operation from the control panel shall be via touchscreen only, with no available buttons or dials.
4. The control panel door shall fully close and protect the wiring and internal components from moisture and dust.
	1. Controller power
5. Depending on requirements, transformer input shall be 120 VAC, 60 Hz or 230 VAC, 50 Hz.
6. Transformer output shall be 24 VAC, 1A. Maximum output per station shall be 24 VAC, up to 0.56 A. Maximum output per P/MV terminal shall be 24 VAC, up to 0.28 A.
	1. Controller surge protection

A. The controller transformer shall be equipped with an internal, self-resetting thermal circuit breaker to protect against overheating.

* 1. Sensor inputs

A. The controller shall be equipped with two dedicated general-purpose sensor ports.

1. The sensor inputs shall be compatible with any standard normally closed or normally-open “Clik-type” sensors for automatic shutdown during rain, freeze, soil moisture, and/or wind events.
2. The sensor inputs shall also be compatible with the Hunter HC Flow Meter for flow monitoring, alerts, and reporting.
	1. P/MV outputs
3. The controller shall have one built-in P/MV (24 VAC) output with a capacity of up to 0.28 A.
	1. Common wire
4. For both 6- and 12-station controllers, one fixed common wire terminal is provided.
5. For the 24-station controller, two fixed common wire terminals are provided.

**Part 4 – Programming and Operational Software**

4.1 General

1. The control panel shall be available in an English-language display. The display shall include selectable settings for date, time, and units of measurement.
2. The Hydrawise software shall be fully translated and available in Czech, English, French, German, Greek, Hungarian, Italian, Polish, Portuguese, Russian, Spanish, Thai, and Turkish.

4.2 Programming

1. The controller shall be programmed via station-based programming, up to 6, 12, or 24 total zones available.
2. The controller shall have 36 total Start Times available.
3. The controller shall be capable of running any one station (+P/MV) at a time.
4. The controller programs shall have 5 weekly schedule options to choose from:
5. 7-day calendar
6. Up to 31-day interval calendar
7. Odd-day/even-day programming
8. Odd-week/even-week programming
9. 365-day calendar clock to accommodate true odd-even watering
10. Each station shall be programmable in minutes of run time, from 1 minute to 24 hours.
11. The controller shall be equipped with programmable Non-Water Days to prevent watering on selected days of the week.
12. Each zone may be assigned a programmable Delay Between Stations, to allow for slow-closing valves or pressure recharging.
13. Delays between stations shall be programmable in 1-second increments from 0 to 3,600 seconds (60 minutes).
14. A P/MV delay shall be programmable in 1-second increments from 0 to 60 seconds (1 minute).

4.3 Software

1. The controller shall be connected to Hydrawise software.
	* + 1. Hydrawise software is available via web login, and as a mobile application that is downloadable via the Apple® App Store and Google Play™ Store.
2. The controller shall utilize Predictive Watering® adjustments to automatically modify irrigation scheduling based on local weather data and forecast information.
3. The controller shall also have manual Seasonal Adjust settings from 0% to 300% for offline programming.

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