

# Heron

## Environmental Controllers



### Outputs

- All outputs are general purpose.
- Outputs are configured at installation to perform the required control function, e.g. heater output, vent output.
- Vents, screens and motorised valves require two outputs, open and close.
- One alarm output is available for each zone. The alarm output is activated on high temperature, low temperature, sensor fault, zone fault.
- All outputs are 24V AC (to operate 24V AC relays).
- The total output current is 1.0 Amp per module.
- All outputs are protected with electronic overload cut-out.
- Output current is measured for diagnostic display purposes.
- All outputs are protected against electrical surges exceeding ANSI C62 surge suppression standards.
- Designed to operate in an industrial environment. High electrical noise immunity, can withstand a 2.5KV spike.

### Inputs—Base Module

- Digital input for inside temperature and/or humidity.
- Digital input for pipe temperature or boiler alarm.
- Digital input for Heron Weather Station.
- One data connector to connect PC and GSM mobile phone module.

### Inputs—Remote Zone Module.

- Digital input for inside temperature and/or humidity.
- Digital input for pipe temperature or boiler alarm.

### Sensors

- All sensors connect via "Heron digital link".
- The Digital link does not require special cable.
- Sensors can be connected up to 200m from the base module.
- Inside temperature sensor range 0 - 50°C (+/- 0.2°C).
- Outside temperature sensor range -10 - 50°C (+/- 0.2°C)
- Humidity sensor range 0 - 95% (+/- 3%).
- Wind speed 0 - 70mph (+/- 5mph).
- Light sensor range 0 - 2000W/m<sup>2</sup> (+/- 8W/m<sup>2</sup>).

## Single and Multi-Zone Environmental Controllers for Greenhouses.

Unit G15,  
Rudford Industrial Estate,  
Arundel,  
West Sussex  
**ENGLAND**  
BN18 0BD

**Heron**  
E I E C T R I C



[www.heron-electric.com](http://www.heron-electric.com)

E-mail: [sales@heron-electric.com](mailto:sales@heron-electric.com)

Phone: Int. 44 1903 724343

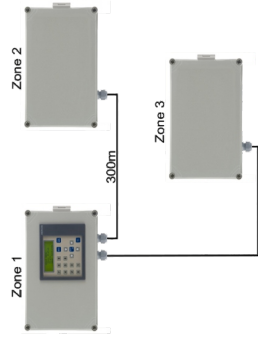
**Heron**  
E I E C T R I C

## Controller Sizes

Heron environmental controllers are available as either single or multi-zone controllers.

Single zone controllers are available in two sizes with either 8 outputs or 16 outputs.

Multi-zone controllers consist of a Base Module and Additional Zone Modules. The Base Module and the Zone modules control individual Greenhouse compartments or zones. The Base module and Zone modules are available with either 8 or 16 outputs. A maximum of 8 Zone modules can be added to a Base module. The Zone modules can be remote from the Base Module.



## Vents

Up to 6 vents can be controlled in one zone; two ridge vents, two side vents and two end vents. Vents can be controlled by any combination of the following:

- Inside air temperature
- Outside air temperature
- Wind speed and direction
- Raining
- Humidity
- Inside humidity

## Screens

- Heron environmental controllers operate either separate thermal and shading screens or one combined screen.
- Thermal screens can be controlled by time, light, and inside and outside air temperature.
- Thermal screens have a delayed opening feature to allow gradual air circulation.
- Shading screens can be controlled by time or light.
- Two gap positions can be specified for high inside temperatures.

## PC Control

- Operate your Heron environmental controller and monitor your glasshouse from your PC.



- Click on a graphical picture of your glasshouse to monitor the environment within your glasshouse.
- Program your environmental controller from your PC.
- Produce graphs of logged data.
- Receive emails should a fault condition arise.



## Periods

- Up to four control periods can be specified to allow for different settings throughout the day.
- Time periods can be set using "time of day" or astronomical time.



## Full range of Sensors

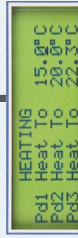
Heron environmental controllers can be integrated with our full range of sensors.

- Outside air temperature
- Aspirated inside temperature
- Pipe temperature
- Wind Speed
- Wind Direction
- Raining
- Light
- Humidity



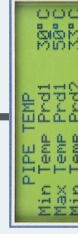
## Hot Water Heating

- Heron controllers operate a hot water motorized valve and a local circulating pump.
- Hot water heating controls air temperature or minimum and maximum pipe temperature.
- Hot water heating can be immediately shut off if a specified high vent position is reached.
- Glasshouse humidity can be reduced by maintaining a minimum pipe temperature.



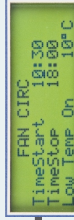
## On/Off Heating

- Heron environmental controllers operate two heaters; a main and a back up heater.
- Heating can be initiated by a low inside air temperature threshold or by a falling temperature gradient.
- Heating can be disabled with a specified high vent position.
- The Back-up heater can be set to start at a lower temperature threshold.



## Fans

- Heron environmental controllers can operate two cooling fans and one circulating fan.
- Circulating fans can be controlled by time or humidity.
- Circulating fans can be disabled with high vent position.
- The first cooling fan is started when a high inside air temperature threshold is reached.
- The second cooling fan can be started if a higher inside temperature threshold is reached.



## Mobile Phone Monitoring

- Take advantage of the mobile phone network to monitor your glasshouse.
- Send a text to the controller to request a status report on the inside temperature, pipe temperature and vent positions.
- Receive a text message from your controller should an alarm condition arise.



Distributed in Australia by:

**parkland**

Parkland Australia Pty Ltd  
www.parkland.com.au  
+61 7 3267 3522  
info@parkland.com.au

**Heron**

